

ALMANAC XXXIX TRANSITS OF MOON IN BCE

The almanac XXXIX contains a list of transits of Moon from the 125th millennium BCE to the 1st millennium BCE.

During the period of 250 000 years, the total number of transits of Moon is 120 496 transits of Moon (3 399 transits of Moon visible from Mars, 23 635 transits of Moon visible from Jupiter, 28 360 transits of Moon visible from Saturn, 29 380 transits of Moon visible from Uranus, 33 172 transits of Moon visible from Neptune, 2 550 transits of Moon visible from Pluto.

125TH MILLENNIUM BCE

This is a list of transits of Moon in the 125th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Pluto	-124998-04-13 03:08 J	-43933994.56	-43933994.37	-43933994.16	0.0082	0.0049		
Saturn	-124996-06-27 17:32 J	-43933187.89	-43933187.77	-43933187.63	0.0262	0.0225		
Uranus	-124982-01-19 18:30 J	-43928233.84	-43928233.73	-43928233.57	0.0131	0.0110		
Uranus	-124981-01-23 12:15 J	-43927865.23	-43927864.99	-43927864.75	0.0131	0.0010		
Saturn	-124980-01-03 17:47 J	-43927518.94	-43927518.76	-43927518.57	0.0299	0.0186		
Uranus	-124980-01-26 14:11 J	-43927496.06	-43927495.91	-43927495.75	0.0131	0.0103		
Jupiter	-124978-01-12 20:39 J	-43926779.81	-43926779.64	-43926779.47	0.0520	0.0321		
Saturn	-124967-06-22 14:39 J	-43922601.13	-43922600.89	-43922600.64	0.0264	0.0082		
Jupiter	-124966-01-17 13:27 J	-43922392.17	-43922391.94	-43922391.71	0.0522	0.0111		
Mars	-124964-12-29 04:20 J	-43921315.45	-43921315.32	-43921315.20	0.1673	0.1168		
Saturn	-124952-12-28 15:51 J	-43916932.95	-43916932.84	-43916932.70	0.0298	0.0255		
Jupiter	-124949-07-07 00:44 J	-43916011.66	-43916011.47	-43916011.28	0.0505	0.0293		
Uranus	-124939-07-16 11:32 J	-43912350.25	-43912350.02	-43912349.78	0.0148	0.0049		
Uranus	-124938-07-21 23:32 J	-43911979.68	-43911979.52	-43911979.32	0.0148	0.0112		
Jupiter	-124937-07-11 20:11 J	-43911623.88	-43911623.66	-43911623.42	0.0504	0.0185		
Neptune	-124935-12-21 12:30 J	-43910731.02	-43910730.98	-43910730.90	0.0089	0.0086		
Neptune	-124934-12-23 16:49 J	-43910363.96	-43910363.80	-43910363.63	0.0089	0.0067		
Neptune	-124933-12-25 09:37 J	-43909996.32	-43909996.10	-43909995.86	0.0088	0.0037		
Neptune	-124932-12-27 12:59 J	-43909629.20	-43909628.96	-43909628.71	0.0088	0.0016		
Neptune	-124931-12-30 05:03 J	-43909261.54	-43909261.29	-43909261.03	0.0088	0.0014		
Neptune	-124929-01-01 09:23 J	-43908894.32	-43908894.11	-43908893.87	0.0088	0.0036		
Neptune	-124928-01-02 22:20 J	-43908526.73	-43908526.57	-43908526.37	0.0088	0.0064		
Neptune	-124927-01-05 06:01 J	-43908159.27	-43908159.25	-43908159.17	0.0088	0.0087		
Saturn	-124921-01-05 12:59 J	-43905968.03	-43905967.96	-43905967.86	0.0299	0.0278		
Saturn	-124908-06-23 16:06 J	-43901050.07	-43901049.83	-43901049.59	0.0264	0.0024		

Uranus -124898-01-20 04:49 J -43897552.47 -43897552.30 -43897552.12 0.0131 0.0096
 Uranus -124897-01-24 01:42 J -43897183.66 -43897183.43 -43897183.19 0.0131 0.0003
 Uranus -124896-01-26 23:47 J -43896814.59 -43896814.51 -43896814.39 0.0131 0.0121
 Jupiter -124895-01-12 00:01 J -43896464.65 -43896464.50 -43896464.35 0.0520 0.0399
 Saturn -124893-12-29 15:37 J -43895382.03 -43895381.85 -43895381.66 0.0298 0.0181
 Jupiter -124883-01-16 14:25 J -43892077.12 -43892076.90 -43892076.68 0.0521 0.0037
 Jupiter -124871-01-21 09:37 J -43887689.21 -43887689.10 -43887688.99 0.0522 0.0451
 Jupiter -124866-07-07 00:30 J -43885696.65 -43885696.48 -43885696.31 0.0506 0.0352
 Uranus -124855-07-16 19:13 J -43881668.92 -43881668.70 -43881668.46 0.0148 0.0063
 Jupiter -124854-07-11 18:59 J -43881308.94 -43881308.71 -43881308.48 0.0504 0.0096
 Uranus -124854-07-22 04:06 J -43881298.48 -43881298.33 -43881298.16 0.0148 0.0118
 Neptune -124851-06-14 05:03 J -43880240.44 -43880240.29 -43880240.10 0.0089 0.0067
 Neptune -124850-06-17 01:13 J -43879872.65 -43879872.45 -43879872.22 0.0089 0.0049
 Neptune -124849-06-18 07:27 J -43879505.43 -43879505.19 -43879504.93 0.0089 0.0015
 Saturn -124849-06-24 16:35 J -43879499.06 -43879498.81 -43879498.55 0.0264 0.0057
 Neptune -124848-06-21 02:54 J -43879137.64 -43879137.38 -43879137.11 0.0089 0.0005
 Neptune -124847-06-23 10:35 J -43878770.28 -43878770.06 -43878769.81 0.0089 0.0037
 Neptune -124846-06-26 03:37 J -43878402.54 -43878402.35 -43878402.13 0.0089 0.0057
 Neptune -124845-06-27 15:23 J -43878034.87 -43878034.86 -43878034.81 0.0089 0.0088
 Mars -124844-06-18 18:59 J -43877678.88 -43877678.71 -43877678.53 0.1835 0.0558
 Pluto -124842-10-20 14:54 J -43876825.14 -43876824.88 -43876824.62 0.0063 0.0007
 Saturn -124833-01-01 05:18 J -43873830.52 -43873830.28 -43873830.03 0.0298 0.0063
 Saturn -124820-06-19 18:30 J -43868911.76 -43868911.73 -43868911.69 0.0265 0.0262
 Uranus -124814-01-20 12:15 J -43866871.15 -43866870.99 -43866870.81 0.0131 0.0097
 Uranus -124813-01-24 13:13 J -43866502.18 -43866501.95 -43866501.71 0.0131 0.0015
 Jupiter -124812-01-11 06:59 J -43866149.27 -43866149.21 -43866149.15 0.0520 0.0496
 Uranus -124812-01-27 08:39 J -43866133.26 -43866133.14 -43866133.00 0.0131 0.0112
 Jupiter -124800-01-15 23:18 J -43861761.76 -43861761.53 -43861761.30 0.0521 0.0045
 Saturn -124790-06-27 03:51 J -43857947.52 -43857947.34 -43857947.15 0.0264 0.0166
 Jupiter -124788-01-20 08:11 J -43857374.32 -43857374.16 -43857374.00 0.0522 0.0363

Jupiter -124783-07-06 06:15 J -43855381.34 -43855381.24 -43855381.12 0.0505 0.0441
 Saturn -124774-01-02 19:13 J -43852278.92 -43852278.70 -43852278.48 0.0298 0.0089
 Jupiter -124771-07-10 23:03 J -43850993.79 -43850993.54 -43850993.29 0.0505 0.0003
 Uranus -124771-07-17 07:42 J -43850987.43 -43850987.18 -43850986.93 0.0148 0.0041
 Uranus -124770-07-22 13:56 J -43850617.08 -43850616.92 -43850616.73 0.0148 0.0112
 Neptune -124770-12-23 07:13 J -43850463.32 -43850463.20 -43850463.03 0.0089 0.0075
 Neptune -124769-12-24 16:20 J -43850096.02 -43850095.82 -43850095.62 0.0089 0.0049
 Neptune -124768-12-27 02:25 J -43849728.64 -43849728.40 -43849728.13 0.0088 0.0023
 Neptune -124767-12-29 14:39 J -43849361.14 -43849360.89 -43849360.65 0.0088 0.0002
 Neptune -124766-12-31 20:11 J -43848993.90 -43848993.66 -43848993.40 0.0088 0.0028
 Neptune -124764-01-02 10:49 J -43848626.23 -43848626.05 -43848625.82 0.0088 0.0051
 Neptune -124763-01-04 13:56 J -43848259.01 -43848258.92 -43848258.78 0.0088 0.0079
 Saturn -124761-06-21 10:06 J -43847360.26 -43847360.08 -43847359.88 0.0265 0.0175
 Jupiter -124759-07-15 12:30 J -43846606.07 -43846605.98 -43846605.88 0.0504 0.0462
 Mars -124759-12-28 07:42 J -43846440.36 -43846440.18 -43846440.01 0.1678 0.0252
 Pluto -124752-04-14 20:39 J -43844140.88 -43844140.64 -43844140.39 0.0082 0.0011
 Saturn -124731-06-28 06:15 J -43836396.34 -43836396.24 -43836396.11 0.0264 0.0235
 Uranus -124730-01-20 22:35 J -43836189.72 -43836189.56 -43836189.37 0.0131 0.0094
 Uranus -124729-01-25 02:11 J -43835820.64 -43835820.41 -43835820.16 0.0131 0.0014
 Uranus -124728-01-27 18:44 J -43835451.77 -43835451.72 -43835451.64 0.0131 0.0126
 Jupiter -124717-01-15 18:30 J -43831446.94 -43831446.73 -43831446.52 0.0521 0.0141
 Saturn -124715-01-04 15:23 J -43830727.04 -43830726.86 -43830726.68 0.0298 0.0202
 Jupiter -124705-01-20 14:54 J -43827059.07 -43827058.88 -43827058.69 0.0522 0.0262
 Saturn -124702-06-23 13:27 J -43825809.18 -43825808.94 -43825808.70 0.0265 0.0051
 Jupiter -124688-07-09 18:59 J -43820678.93 -43820678.71 -43820678.48 0.0505 0.0098
 Neptune -124687-06-13 16:49 J -43820339.90 -43820339.80 -43820339.66 0.0089 0.0079
 Uranus -124687-07-17 20:54 J -43820305.87 -43820305.63 -43820305.37 0.0148 0.0045
 Saturn -124687-12-29 17:32 J -43820140.93 -43820140.77 -43820140.59 0.0297 0.0212
 Neptune -124686-06-16 04:20 J -43819972.49 -43819972.32 -43819972.11 0.0089 0.0058
 Uranus -124686-07-23 02:54 J -43819935.48 -43819935.38 -43819935.28 0.0148 0.0136

Neptune -124685-06-17 17:03 J -43819605.04 -43819604.79 -43819604.53 0.0089 0.0028
 Neptune -124684-06-20 08:39 J -43819237.39 -43819237.14 -43819236.89 0.0089 0.0005
 Neptune -124683-06-22 17:32 J -43818870.03 -43818869.77 -43818869.51 0.0089 0.0023
 Neptune -124682-06-25 12:01 J -43818502.20 -43818502.00 -43818501.78 0.0089 0.0049
 Neptune -124681-06-26 18:30 J -43818134.83 -43818134.73 -43818134.56 0.0089 0.0076
 Jupiter -124676-07-14 19:13 J -43816290.85 -43816290.70 -43816290.53 0.0503 0.0370
 Uranus -124646-01-21 08:39 J -43805508.32 -43805508.14 -43805507.93 0.0131 0.0084
 Uranus -124645-01-25 14:11 J -43805139.14 -43805138.91 -43805138.66 0.0131 0.0020
 Uranus -124644-01-28 05:32 J -43804770.33 -43804770.27 -43804770.19 0.0131 0.0125
 Saturn -124643-06-25 07:13 J -43804257.46 -43804257.20 -43804256.95 0.0264 0.0030
 Jupiter -124634-01-14 21:23 J -43801131.81 -43801131.61 -43801131.40 0.0520 0.0243
 Saturn -124628-12-31 21:37 J -43798588.82 -43798588.60 -43798588.37 0.0297 0.0091
 Jupiter -124622-01-19 05:18 J -43796744.50 -43796744.28 -43796744.06 0.0521 0.0149
 Neptune -124606-12-22 19:13 J -43790562.78 -43790562.70 -43790562.59 0.0089 0.0082
 Jupiter -124605-07-08 21:08 J -43790363.85 -43790363.62 -43790363.39 0.0505 0.0199
 Neptune -124605-12-23 23:32 J -43790195.69 -43790195.52 -43790195.32 0.0089 0.0062
 Neptune -124604-12-26 16:49 J -43789828.03 -43789827.80 -43789827.55 0.0089 0.0031
 Uranus -124603-07-18 09:08 J -43789624.38 -43789624.12 -43789623.85 0.0148 0.0024
 Neptune -124603-12-28 20:11 J -43789460.91 -43789460.66 -43789460.40 0.0088 0.0012
 Uranus -124602-07-23 15:23 J -43789253.96 -43789253.86 -43789253.72 0.0148 0.0130
 Neptune -124602-12-31 12:30 J -43789093.22 -43789092.98 -43789092.72 0.0088 0.0021
 Neptune -124600-01-01 17:03 J -43788726.00 -43788725.79 -43788725.56 0.0088 0.0039
 Neptune -124599-01-04 06:44 J -43788358.35 -43788358.22 -43788358.05 0.0088 0.0072
 Pluto -124596-10-21 23:47 J -43786971.78 -43786971.51 -43786971.23 0.0063 0.0004
 Jupiter -124593-07-13 06:59 J -43785976.41 -43785976.21 -43785976.00 0.0504 0.0265
 Saturn -124584-06-26 13:27 J -43782706.14 -43782705.94 -43782705.72 0.0264 0.0135
 Saturn -124568-01-02 10:20 J -43777037.31 -43777037.07 -43777036.83 0.0298 0.0055
 Uranus -124562-01-21 20:25 J -43774826.82 -43774826.65 -43774826.46 0.0131 0.0088
 Uranus -124561-01-26 01:42 J -43774457.67 -43774457.43 -43774457.18 0.0131 0.0028
 Mars -124560-06-18 17:18 J -43773947.91 -43773947.78 -43773947.65 0.1830 0.1274

Saturn -124555-06-21 20:25 J -43772118.81 -43772118.65 -43772118.46 0.0265 0.0182
 Mars -124554-12-27 05:18 J -43771565.30 -43771565.28 -43771565.25 0.1684 0.1663
 Jupiter -124551-01-13 14:39 J -43770817.06 -43770816.89 -43770816.72 0.0520 0.0345
 Jupiter -124539-01-18 12:30 J -43766429.20 -43766428.98 -43766428.75 0.0521 0.0056
 Saturn -124525-06-28 05:03 J -43761154.35 -43761154.29 -43761154.21 0.0264 0.0252
 Neptune -124522-06-15 09:37 J -43760072.27 -43760072.10 -43760071.93 0.0089 0.0066
 Jupiter -124522-07-08 13:13 J -43760049.12 -43760048.95 -43760048.76 0.0506 0.0313
 Neptune -124521-06-17 05:18 J -43759704.50 -43759704.28 -43759704.04 0.0089 0.0042
 Neptune -124520-06-19 11:03 J -43759337.29 -43759337.04 -43759336.78 0.0089 0.0012
 Neptune -124519-06-22 06:30 J -43758969.48 -43758969.23 -43758968.95 0.0089 0.0011
 Uranus -124519-07-18 16:49 J -43758943.06 -43758942.80 -43758942.53 0.0148 0.0027
 Neptune -124518-06-24 14:25 J -43758602.11 -43758601.90 -43758601.66 0.0089 0.0042
 Neptune -124517-06-26 07:56 J -43758234.35 -43758234.17 -43758233.96 0.0089 0.0062
 Jupiter -124510-07-13 14:54 J -43755661.10 -43755660.88 -43755660.66 0.0505 0.0180
 Saturn -124509-01-05 08:54 J -43755485.29 -43755485.13 -43755484.95 0.0299 0.0209
 Pluto -124506-04-17 01:42 J -43754287.68 -43754287.43 -43754287.19 0.0082 0.0022
 Saturn -124496-06-23 05:18 J -43750567.52 -43750567.28 -43750567.03 0.0265 0.0088
 Saturn -124481-12-29 07:42 J -43744899.27 -43744899.18 -43744899.09 0.0297 0.0274
 Uranus -124478-01-22 06:30 J -43744145.42 -43744145.23 -43744145.02 0.0131 0.0073
 Uranus -124477-01-26 10:35 J -43743776.30 -43743776.06 -43743775.80 0.0131 0.0024
 Mars -124475-12-29 10:06 J -43742708.25 -43742708.08 -43742707.91 0.1682 0.0453
 Jupiter -124468-01-13 01:42 J -43740501.56 -43740501.43 -43740501.28 0.0519 0.0414
 Jupiter -124456-01-17 08:54 J -43736114.36 -43736114.13 -43736113.90 0.0520 0.0034
 Saturn -124450-01-06 13:13 J -43733933.97 -43733933.95 -43733933.90 0.0299 0.0295
 Jupiter -124444-01-22 00:15 J -43731726.59 -43731726.49 -43731726.38 0.0522 0.0456
 Neptune -124441-12-23 17:32 J -43730294.91 -43730294.77 -43730294.62 0.0089 0.0073
 Neptune -124440-12-26 00:44 J -43729927.69 -43729927.47 -43729927.24 0.0089 0.0039
 Jupiter -124439-07-07 21:23 J -43729733.76 -43729733.61 -43729733.44 0.0506 0.0384
 Neptune -124439-12-28 11:47 J -43729560.26 -43729560.01 -43729559.75 0.0089 0.0022
 Neptune -124438-12-30 22:20 J -43729192.80 -43729192.57 -43729192.31 0.0089 0.0013

Saturn -124437-06-24 16:20 J -43729016.06 -43729015.82 -43729015.58 0.0264 0.0024
 Neptune -124436-01-01 05:18 J -43728825.51 -43728825.28 -43728825.01 0.0088 0.0029
 Neptune -124435-01-03 19:42 J -43728457.84 -43728457.68 -43728457.49 0.0088 0.0063
 Uranus -124435-07-18 20:39 J -43728261.90 -43728261.64 -43728261.37 0.0148 0.0025
 Neptune -124434-01-05 23:32 J -43728090.62 -43728090.52 -43728090.38 0.0088 0.0079
 Uranus -124434-07-24 08:11 J -43727891.24 -43727891.16 -43727891.04 0.0148 0.0136
 Jupiter -124427-07-12 12:01 J -43725346.24 -43725346.00 -43725345.76 0.0505 0.0106
 Saturn -124422-12-31 12:01 J -43723348.20 -43723348.00 -43723347.79 0.0297 0.0150
 Jupiter -124415-07-17 05:18 J -43720958.35 -43720958.28 -43720958.20 0.0504 0.0473
 Uranus -124394-01-22 17:32 J -43713463.95 -43713463.77 -43713463.58 0.0131 0.0083
 Uranus -124393-01-26 19:42 J -43713094.92 -43713094.68 -43713094.43 0.0131 0.0036
 Jupiter -124385-01-12 23:18 J -43710186.58 -43710186.53 -43710186.47 0.0519 0.0501
 Saturn -124378-06-26 16:35 J -43707465.05 -43707464.81 -43707464.56 0.0264 0.0084
 Jupiter -124373-01-17 18:44 J -43705798.93 -43705798.72 -43705798.50 0.0520 0.0114
 Saturn -124362-01-01 17:47 J -43701797.00 -43701796.76 -43701796.52 0.0297 0.0085
 Jupiter -124361-01-22 13:27 J -43701411.08 -43701410.94 -43701410.79 0.0521 0.0397
 Neptune -124358-06-15 00:30 J -43700171.62 -43700171.48 -43700171.31 0.0089 0.0072
 Neptune -124357-06-16 08:39 J -43699804.31 -43699804.14 -43699803.92 0.0089 0.0055
 Neptune -124356-06-19 00:30 J -43699436.74 -43699436.48 -43699436.21 0.0089 0.0020
 Jupiter -124356-07-06 17:18 J -43699418.85 -43699418.78 -43699418.68 0.0506 0.0470
 Neptune -124355-06-21 12:30 J -43699069.23 -43699068.98 -43699068.72 0.0089 0.0003
 Neptune -124354-06-24 00:01 J -43698701.74 -43698701.50 -43698701.24 0.0089 0.0033
 Neptune -124353-06-25 15:51 J -43698334.03 -43698333.84 -43698333.61 0.0089 0.0051
 Neptune -124352-06-28 00:59 J -43697966.50 -43697966.46 -43697966.38 0.0089 0.0086
 Uranus -124351-07-18 22:06 J -43697580.83 -43697580.58 -43697580.30 0.0148 0.0029
 Pluto -124351-10-22 21:37 J -43697484.74 -43697484.60 -43697484.43 0.0063 0.0051
 Uranus -124350-07-24 11:18 J -43697210.07 -43697210.03 -43697209.94 0.0148 0.0142
 Pluto -124350-10-24 03:37 J -43697118.57 -43697118.35 -43697118.09 0.0063 0.0026
 Saturn -124349-06-20 17:32 J -43696877.90 -43696877.77 -43696877.62 0.0265 0.0219
 Jupiter -124344-07-11 18:30 J -43695030.96 -43695030.73 -43695030.50 0.0505 0.0025

Jupiter -124332-07-16 15:51 J -43690642.98 -43690642.84 -43690642.69 0.0504 0.0407
 Saturn -124319-06-27 21:23 J -43685913.80 -43685913.61 -43685913.41 0.0264 0.0155
 Uranus -124310-01-23 01:13 J -43682782.64 -43682782.45 -43682782.23 0.0131 0.0070
 Uranus -124309-01-27 03:23 J -43682413.60 -43682413.36 -43682413.11 0.0131 0.0027
 Saturn -124303-01-02 12:01 J -43680246.23 -43680246.00 -43680245.76 0.0297 0.0015
 Jupiter -124290-01-17 07:42 J -43675483.41 -43675483.18 -43675482.95 0.0520 0.0155
 Saturn -124290-06-23 00:15 J -43675326.68 -43675326.49 -43675326.29 0.0265 0.0159
 Jupiter -124278-01-21 18:01 J -43671095.91 -43671095.75 -43671095.58 0.0521 0.0344
 Neptune -124277-12-23 03:23 J -43670394.45 -43670394.36 -43670394.25 0.0089 0.0080
 Mars -124276-06-18 10:49 J -43670217.11 -43670217.05 -43670216.99 0.1824 0.1709
 Neptune -124276-12-25 12:59 J -43670027.18 -43670026.96 -43670026.75 0.0089 0.0051
 Neptune -124275-12-28 02:39 J -43669659.62 -43669659.39 -43669659.15 0.0089 0.0029
 Neptune -124274-12-30 08:11 J -43669292.42 -43669292.16 -43669291.90 0.0089 0.0001
 Neptune -124272-01-01 00:01 J -43668924.74 -43668924.50 -43668924.25 0.0089 0.0024
 Neptune -124271-01-03 03:08 J -43668557.57 -43668557.37 -43668557.16 0.0088 0.0050
 Neptune -124270-01-05 19:27 J -43668189.80 -43668189.69 -43668189.55 0.0088 0.0076
 Mars -124270-12-28 04:20 J -43667833.47 -43667833.32 -43667833.16 0.1688 0.0936
 Uranus -124267-07-19 03:08 J -43666899.62 -43666899.37 -43666899.10 0.0148 0.0033
 Uranus -124266-07-24 17:03 J -43666528.91 -43666528.79 -43666528.67 0.0148 0.0129
 Jupiter -124261-07-11 02:39 J -43664715.64 -43664715.39 -43664715.14 0.0506 0.0024
 Pluto -124260-04-18 18:44 J -43664433.84 -43664433.72 -43664433.55 0.0082 0.0066
 Saturn -124260-06-28 15:51 J -43664362.92 -43664362.84 -43664362.72 0.0263 0.0244
 Jupiter -124249-07-15 21:08 J -43660327.78 -43660327.62 -43660327.45 0.0504 0.0361
 Saturn -124244-01-03 09:23 J -43658695.35 -43658695.11 -43658694.86 0.0298 0.0076
 Saturn -124231-06-23 13:42 J -43653776.16 -43653775.93 -43653775.70 0.0265 0.0111
 Uranus -124226-01-23 10:35 J -43652101.24 -43652101.06 -43652100.87 0.0131 0.0082
 Uranus -124225-01-27 11:47 J -43651732.25 -43651732.01 -43651731.76 0.0131 0.0038
 Jupiter -124207-01-16 15:51 J -43645168.04 -43645167.84 -43645167.64 0.0520 0.0215
 Mars -124197-06-21 06:15 J -43641359.34 -43641359.24 -43641359.14 0.1828 0.1527
 Jupiter -124195-01-21 11:47 J -43640780.19 -43640780.01 -43640779.82 0.0521 0.0295

Neptune -124194-06-14 07:13 J -43640271.27 -43640271.20 -43640271.11 0.0089 0.0084
 Neptune -124193-06-15 19:56 J -43639903.85 -43639903.67 -43639903.47 0.0089 0.0062
 Neptune -124192-06-18 10:06 J -43639536.29 -43639536.08 -43639535.82 0.0089 0.0033
 Neptune -124191-06-20 20:11 J -43639168.92 -43639168.66 -43639168.39 0.0089 0.0008
 Mars -124191-12-30 06:01 J -43638976.42 -43638976.25 -43638976.08 0.1686 0.0501
 Neptune -124190-06-23 14:11 J -43638801.16 -43638800.91 -43638800.66 0.0089 0.0020
 Neptune -124189-06-24 21:08 J -43638433.85 -43638433.62 -43638433.39 0.0089 0.0045
 Neptune -124188-06-27 17:03 J -43638065.93 -43638065.79 -43638065.62 0.0089 0.0071
 Saturn -124185-01-05 00:15 J -43637144.71 -43637144.49 -43637144.28 0.0298 0.0112
 Uranus -124183-07-19 12:15 J -43636218.25 -43636217.99 -43636217.72 0.0148 0.0027
 Uranus -124182-07-25 02:39 J -43635847.44 -43635847.39 -43635847.32 0.0148 0.0143
 Jupiter -124178-07-11 08:39 J -43634400.37 -43634400.14 -43634399.92 0.0505 0.0093
 Saturn -124172-06-24 16:20 J -43632225.07 -43632224.82 -43632224.57 0.0265 0.0025
 Jupiter -124166-07-16 09:23 J -43630012.30 -43630012.11 -43630011.92 0.0505 0.0291
 Uranus -124142-01-23 19:27 J -43621419.89 -43621419.69 -43621419.48 0.0131 0.0067
 Uranus -124141-01-27 20:25 J -43621050.89 -43621050.65 -43621050.39 0.0131 0.0030
 Saturn -124126-01-05 18:01 J -43615593.95 -43615593.75 -43615593.55 0.0298 0.0174
 Jupiter -124124-01-16 10:20 J -43614852.27 -43614852.07 -43614851.86 0.0520 0.0253
 Saturn -124113-06-25 03:08 J -43610674.62 -43610674.37 -43610674.12 0.0265 0.0024
 Neptune -124113-12-22 12:44 J -43610494.02 -43610493.97 -43610493.86 0.0089 0.0085
 Jupiter -124112-01-20 22:35 J -43610464.76 -43610464.56 -43610464.36 0.0521 0.0261
 Neptune -124112-12-25 04:49 J -43610126.44 -43610126.30 -43610126.12 0.0089 0.0067
 Neptune -124111-12-27 09:37 J -43609759.33 -43609759.10 -43609758.85 0.0089 0.0032
 Neptune -124110-12-30 02:54 J -43609391.63 -43609391.38 -43609391.12 0.0089 0.0015
 Neptune -124109-12-31 06:15 J -43609024.48 -43609024.24 -43609023.99 0.0089 0.0020
 Neptune -124107-01-02 22:35 J -43608656.79 -43608656.56 -43608656.31 0.0089 0.0036
 Neptune -124106-01-05 02:39 J -43608289.51 -43608289.39 -43608289.21 0.0089 0.0071
 Neptune -124105-01-07 16:35 J -43607921.84 -43607921.81 -43607921.72 0.0088 0.0087
 Pluto -124105-10-23 21:23 J -43607631.79 -43607631.61 -43607631.37 0.0063 0.0041
 Pluto -124104-10-25 15:51 J -43607265.03 -43607264.84 -43607264.63 0.0063 0.0040

Uranus -124099-07-19 23:32 J -43605536.78 -43605536.52 -43605536.25 0.0148 0.0021
 Uranus -124098-07-25 13:56 J -43605165.98 -43605165.92 -43605165.82 0.0148 0.0140
 Saturn -124098-12-30 09:51 J -43605008.13 -43605008.09 -43605008.02 0.0296 0.0289
 Jupiter -124095-07-10 21:51 J -43604084.82 -43604084.59 -43604084.35 0.0506 0.0149
 Jupiter -124083-07-15 14:25 J -43599697.11 -43599696.90 -43599696.68 0.0505 0.0246
 Saturn -124067-01-06 12:30 J -43594043.07 -43594042.98 -43594042.87 0.0298 0.0268
 Uranus -124058-01-24 05:47 J -43590738.44 -43590738.26 -43590738.05 0.0131 0.0076
 Uranus -124057-01-28 06:01 J -43590369.49 -43590369.25 -43590369.01 0.0131 0.0043
 Saturn -124054-06-27 06:15 J -43589123.48 -43589123.24 -43589123.00 0.0265 0.0069
 Jupiter -124041-01-16 15:51 J -43584537.02 -43584536.84 -43584536.66 0.0520 0.0307
 Saturn -124039-12-31 13:27 J -43583457.10 -43583456.94 -43583456.78 0.0296 0.0218
 Jupiter -124029-01-21 11:03 J -43580149.24 -43580149.04 -43580148.84 0.0520 0.0197
 Neptune -124029-06-15 09:23 J -43580003.26 -43580003.11 -43580002.93 0.0089 0.0066
 Neptune -124028-06-17 16:06 J -43579636.04 -43579635.83 -43579635.59 0.0089 0.0047
 Neptune -124027-06-20 11:32 J -43579268.27 -43579268.02 -43579267.76 0.0089 0.0013
 Neptune -124026-06-22 17:18 J -43578901.04 -43578900.78 -43578900.52 0.0089 0.0005
 Saturn -124025-06-21 02:54 J -43578536.47 -43578536.38 -43578536.27 0.0267 0.0243
 Neptune -124025-06-24 13:13 J -43578533.17 -43578532.95 -43578532.70 0.0089 0.0041
 Neptune -124024-06-26 20:11 J -43578165.85 -43578165.66 -43578165.46 0.0089 0.0058
 Pluto -124015-04-18 21:37 J -43574947.68 -43574947.60 -43574947.46 0.0082 0.0073
 Uranus -124015-07-20 10:06 J -43574855.35 -43574855.08 -43574854.81 0.0148 0.0014
 Jupiter -124012-07-10 02:54 J -43573769.59 -43573769.38 -43573769.16 0.0506 0.0205

124TH MILLENNIUM BCE

This is a list of transits of Moon in the 124th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-124000-07-15 00:44 J		-43569381.69	-43569381.47	-43569381.26	0.0504	0.0181	
Saturn	-123995-06-27 21:37 J		-43567572.80	-43567572.60	-43567572.41	0.0266	0.0163	
Mars	-123986-12-29 00:44 J		-43564101.62	-43564101.47	-43564101.31	0.1692	0.0838	
Saturn	-123979-01-01 08:54 J		-43561906.36	-43561906.13	-43561905.90	0.0296	0.0104	
Uranus	-123974-01-24 15:37 J		-43560057.06	-43560056.85	-43560056.63	0.0131	0.0061	
Uranus	-123973-01-28 14:54 J		-43559688.12	-43559687.88	-43559687.63	0.0131	0.0036	
Saturn	-123966-06-22 22:35 J		-43556985.71	-43556985.56	-43556985.39	0.0267	0.0195	
Jupiter	-123958-01-16 04:49 J		-43554221.45	-43554221.30	-43554221.14	0.0519	0.0373	
Neptune	-123948-12-24 11:47 J		-43550226.14	-43550226.01	-43550225.86	0.0089	0.0074	
Neptune	-123947-12-27 06:01 J		-43549858.48	-43549858.25	-43549858.03	0.0089	0.0043	
Jupiter	-123946-01-20 19:13 J		-43549833.93	-43549833.70	-43549833.47	0.0521	0.0127	
Neptune	-123946-12-29 10:35 J		-43549491.31	-43549491.06	-43549490.82	0.0089	0.0022	
Neptune	-123945-12-31 01:42 J		-43549123.68	-43549123.43	-43549123.16	0.0089	0.0008	
Neptune	-123943-01-02 08:11 J		-43548756.39	-43548756.16	-43548755.92	0.0089	0.0031	
Neptune	-123942-01-04 19:27 J		-43548388.87	-43548388.69	-43548388.48	0.0089	0.0059	
Neptune	-123941-01-07 05:32 J		-43548021.34	-43548021.27	-43548021.17	0.0089	0.0083	
Saturn	-123936-06-29 05:47 J		-43546021.38	-43546021.26	-43546021.13	0.0266	0.0230	
Jupiter	-123934-01-25 06:30 J		-43545446.23	-43545446.23	-43545446.23	0.0522	0.0522	
Uranus	-123931-07-20 16:49 J		-43544174.06	-43544173.80	-43544173.53	0.0148	0.0013	
Jupiter	-123929-07-09 12:30 J		-43543454.17	-43543453.98	-43543453.78	0.0506	0.0294	
Saturn	-123920-01-02 22:35 J		-43540354.79	-43540354.56	-43540354.32	0.0296	0.0022	
Jupiter	-123917-07-14 02:54 J		-43539066.62	-43539066.38	-43539066.13	0.0505	0.0107	
Mars	-123913-06-20 22:49 J		-43537628.74	-43537628.55	-43537628.36	0.1822	0.0381	
Saturn	-123907-06-24 06:15 J		-43535434.47	-43535434.24	-43535433.99	0.0267	0.0093	
Mars	-123907-12-31 00:59 J		-43535244.61	-43535244.46	-43535244.30	0.1690	0.0800	

Uranus -123890-01-25 00:44 J -43529375.67 -43529375.47 -43529375.27 0.0131 0.0071
 Uranus -123889-01-28 22:35 J -43529006.79 -43529006.56 -43529006.31 0.0131 0.0048
 Jupiter -123875-01-15 04:20 J -43523906.43 -43523906.32 -43523906.20 0.0520 0.0448
 Neptune -123865-06-14 15:08 J -43520102.99 -43520102.87 -43520102.72 0.0089 0.0075
 Neptune -123864-06-17 10:20 J -43519735.25 -43519735.07 -43519734.85 0.0089 0.0056
 Jupiter -123863-01-19 20:11 J -43519518.88 -43519518.66 -43519518.44 0.0520 0.0039
 Neptune -123863-06-19 15:51 J -43519368.07 -43519367.84 -43519367.58 0.0089 0.0024
 Neptune -123862-06-22 10:49 J -43519000.31 -43519000.05 -43518999.78 0.0089 0.0002
 Saturn -123861-01-05 05:47 J -43518803.49 -43518803.26 -43518803.02 0.0296 0.0090
 Neptune -123861-06-23 18:30 J -43518632.96 -43518632.73 -43518632.49 0.0089 0.0029
 Neptune -123860-06-26 10:20 J -43518265.27 -43518265.07 -43518264.83 0.0089 0.0052
 Neptune -123859-06-28 21:23 J -43517897.68 -43517897.61 -43517897.48 0.0089 0.0081
 Pluto -123859-10-26 04:35 J -43517778.52 -43517778.31 -43517778.06 0.0063 0.0029
 Pluto -123858-10-27 18:59 J -43517411.82 -43517411.71 -43517411.53 0.0063 0.0054
 Jupiter -123851-01-24 16:35 J -43515130.93 -43515130.81 -43515130.69 0.0521 0.0433
 Saturn -123848-06-25 08:54 J -43513883.37 -43513883.13 -43513882.89 0.0267 0.0005
 Uranus -123847-07-20 20:11 J -43513492.92 -43513492.66 -43513492.40 0.0148 0.0015
 Jupiter -123846-07-09 06:44 J -43513139.37 -43513139.22 -43513139.06 0.0506 0.0385
 Jupiter -123834-07-14 05:18 J -43508751.51 -43508751.28 -43508751.05 0.0505 0.0033
 Uranus -123806-01-25 09:23 J -43498694.32 -43498694.11 -43498693.89 0.0131 0.0058
 Uranus -123805-01-29 06:59 J -43498325.45 -43498325.21 -43498324.96 0.0131 0.0039
 Saturn -123802-01-07 04:20 J -43497251.43 -43497251.32 -43497251.18 0.0296 0.0250
 Saturn -123789-06-26 23:32 J -43492331.76 -43492331.52 -43492331.27 0.0266 0.0081
 Neptune -123784-12-24 06:15 J -43490325.34 -43490325.24 -43490325.10 0.0089 0.0078
 Neptune -123783-12-26 12:15 J -43489958.15 -43489957.99 -43489957.78 0.0089 0.0059
 Neptune -123782-12-29 02:54 J -43489590.63 -43489590.38 -43489590.12 0.0089 0.0025
 Neptune -123781-12-30 12:30 J -43489223.22 -43489222.98 -43489222.73 0.0089 0.0006
 Jupiter -123780-01-19 00:30 J -43489203.71 -43489203.48 -43489203.25 0.0520 0.0068
 Neptune -123779-01-01 22:35 J -43488855.81 -43488855.56 -43488855.31 0.0089 0.0027
 Neptune -123778-01-04 10:49 J -43488488.25 -43488488.05 -43488487.82 0.0089 0.0045

Neptune -123777-01-06 16:06 J -43488120.92 -43488120.83 -43488120.68 0.0089 0.0079
 Saturn -123773-01-01 12:44 J -43486665.14 -43486664.97 -43486664.79 0.0295 0.0206
 Pluto -123769-04-20 13:56 J -43485094.12 -43485093.92 -43485093.69 0.0082 0.0038
 Jupiter -123768-01-23 09:23 J -43484816.29 -43484816.11 -43484815.92 0.0521 0.0326
 Jupiter -123763-07-08 13:13 J -43482824.02 -43482823.95 -43482823.89 0.0506 0.0483
 Uranus -123763-07-20 21:51 J -43482811.84 -43482811.59 -43482811.32 0.0148 0.0023
 Uranus -123762-07-26 15:51 J -43482440.90 -43482440.84 -43482440.74 0.0148 0.0140
 Saturn -123760-06-21 23:32 J -43481744.66 -43481744.52 -43481744.35 0.0268 0.0213
 Jupiter -123751-07-13 07:13 J -43478436.45 -43478436.20 -43478435.96 0.0505 0.0060
 Jupiter -123739-07-17 17:32 J -43474048.91 -43474048.77 -43474048.63 0.0504 0.0408
 Saturn -123730-06-29 06:44 J -43470780.38 -43470780.22 -43470780.05 0.0266 0.0195
 Uranus -123722-01-25 17:03 J -43468012.99 -43468012.79 -43468012.58 0.0131 0.0070
 Uranus -123721-01-29 14:11 J -43467644.14 -43467643.91 -43467643.67 0.0131 0.0049
 Saturn -123714-01-03 02:54 J -43465113.61 -43465113.38 -43465113.13 0.0295 0.0041
 Mars -123702-12-29 18:15 J -43460369.90 -43460369.74 -43460369.58 0.1696 0.0642
 Saturn -123701-06-23 12:59 J -43460193.17 -43460192.96 -43460192.75 0.0268 0.0129
 Neptune -123700-06-16 14:54 J -43459835.05 -43459834.88 -43459834.67 0.0089 0.0059
 Neptune -123699-06-19 07:56 J -43459467.39 -43459467.17 -43459466.91 0.0089 0.0039
 Neptune -123698-06-21 17:47 J -43459100.01 -43459099.76 -43459099.51 0.0089 0.0006
 Jupiter -123697-01-18 15:37 J -43458889.06 -43458888.85 -43458888.64 0.0520 0.0182
 Neptune -123697-06-23 07:42 J -43458732.43 -43458732.18 -43458731.90 0.0089 0.0014
 Neptune -123696-06-25 20:54 J -43458364.83 -43458364.63 -43458364.40 0.0089 0.0048
 Neptune -123695-06-28 07:13 J -43457997.35 -43457997.20 -43457997.00 0.0089 0.0067
 Jupiter -123685-01-23 11:46 J -43454501.21 -43454501.01 -43454500.81 0.0521 0.0225
 Uranus -123679-07-21 03:22 J -43452130.62 -43452130.36 -43452130.10 0.0148 0.0022
 Jupiter -123668-07-11 20:39 J -43448121.86 -43448121.64 -43448121.42 0.0506 0.0165
 Jupiter -123656-07-16 21:08 J -43443733.80 -43443733.62 -43443733.44 0.0505 0.0314
 Saturn -123655-01-05 07:27 J -43443561.41 -43443561.19 -43443560.97 0.0296 0.0112
 Saturn -123642-06-26 02:25 J -43438641.65 -43438641.40 -43438641.14 0.0267 0.0031
 Uranus -123638-01-26 01:27 J -43437331.65 -43437331.44 -43437331.22 0.0131 0.0058

Uranus -123637-01-29 22:06 J -43436962.81 -43436962.58 -43436962.32 0.0131 0.0040
 Mars -123629-06-20 19:27 J -43433897.89 -43433897.69 -43433897.49 0.1816 0.0382
 Mars -123623-12-31 20:54 J -43431512.74 -43431512.63 -43431512.52 0.1694 0.1359
 Neptune -123620-12-23 15:22 J -43430424.89 -43430424.86 -43430424.78 0.0089 0.0087
 Neptune -123619-12-26 04:06 J -43430057.48 -43430057.33 -43430057.14 0.0089 0.0067
 Neptune -123618-12-28 15:22 J -43429690.08 -43429689.86 -43429689.63 0.0089 0.0035
 Neptune -123617-12-29 23:46 J -43429322.77 -43429322.51 -43429322.24 0.0089 0.0015
 Neptune -123615-01-01 14:25 J -43428955.14 -43428954.90 -43428954.65 0.0089 0.0017
 Neptune -123614-01-03 19:13 J -43428587.91 -43428587.70 -43428587.44 0.0089 0.0039
 Jupiter -123614-01-18 00:44 J -43428573.66 -43428573.47 -43428573.28 0.0519 0.0278
 Neptune -123613-01-06 12:30 J -43428220.14 -43428219.98 -43428219.82 0.0089 0.0068
 Pluto -123613-10-27 13:13 J -43427925.18 -43427924.95 -43427924.69 0.0063 0.0023
 Pluto -123612-10-28 18:30 J -43427558.76 -43427558.73 -43427558.62 0.0063 0.0062
 Jupiter -123602-01-22 11:18 J -43424186.26 -43424186.03 -43424185.80 0.0520 0.0122
 Saturn -123596-01-06 17:46 J -43422009.92 -43422009.76 -43422009.59 0.0296 0.0216
 Uranus -123595-07-21 12:44 J -43421449.23 -43421448.97 -43421448.71 0.0148 0.0019
 Uranus -123594-07-27 06:44 J -43421078.28 -43421078.22 -43421078.13 0.0148 0.0141
 Jupiter -123585-07-11 05:18 J -43417806.49 -43417806.28 -43417806.07 0.0506 0.0236
 Saturn -123583-06-27 12:30 J -43417090.21 -43417089.98 -43417089.76 0.0266 0.0093
 Jupiter -123573-07-15 20:10 J -43413418.87 -43413418.66 -43413418.43 0.0505 0.0225
 Saturn -123568-12-31 21:51 J -43411423.76 -43411423.59 -43411423.42 0.0294 0.0198
 Uranus -123554-01-26 10:20 J -43406650.26 -43406650.07 -43406649.85 0.0131 0.0068
 Saturn -123554-06-22 19:56 J -43406502.74 -43406502.67 -43406502.59 0.0268 0.0254
 Uranus -123553-01-30 06:58 J -43406281.43 -43406281.21 -43406280.96 0.0131 0.0052
 Neptune -123536-06-16 06:44 J -43399934.37 -43399934.22 -43399934.03 0.0089 0.0068
 Neptune -123535-06-18 17:18 J -43399566.98 -43399566.78 -43399566.56 0.0089 0.0049
 Neptune -123534-06-21 05:03 J -43399199.55 -43399199.29 -43399199.02 0.0089 0.0015
 Neptune -123533-06-22 19:42 J -43398831.93 -43398831.68 -43398831.43 0.0089 0.0006
 Neptune -123532-06-25 03:37 J -43398464.57 -43398464.35 -43398464.08 0.0089 0.0038
 Jupiter -123531-01-16 18:44 J -43398258.88 -43398258.72 -43398258.56 0.0519 0.0386

Neptune -123531-06-27 22:34 J -43398096.74 -43398096.56 -43398096.37 0.0089 0.0059
 Saturn -123524-06-28 22:34 J -43395538.74 -43395538.56 -43395538.36 0.0266 0.0174
 Pluto -123523-04-22 20:25 J -43395240.88 -43395240.65 -43395240.40 0.0082 0.0028
 Jupiter -123519-01-21 08:54 J -43393871.35 -43393871.13 -43393870.91 0.0520 0.0028
 Uranus -123511-07-22 00:01 J -43390767.76 -43390767.50 -43390767.24 0.0148 0.0012
 Saturn -123508-01-02 12:30 J -43389872.20 -43389871.98 -43389871.75 0.0295 0.0114
 Jupiter -123502-07-10 19:42 J -43387491.85 -43387491.68 -43387491.49 0.0506 0.0329
 Saturn -123495-06-23 23:32 J -43384951.73 -43384951.52 -43384951.30 0.0268 0.0141
 Jupiter -123490-07-15 16:49 J -43383104.02 -43383103.80 -43383103.57 0.0505 0.0128
 Uranus -123470-01-26 20:54 J -43375968.85 -43375968.63 -43375968.40 0.0131 0.0053
 Uranus -123469-01-30 17:03 J -43375600.03 -43375599.79 -43375599.55 0.0131 0.0046
 Saturn -123465-06-30 02:10 J -43373987.50 -43373987.41 -43373987.31 0.0265 0.0243
 Neptune -123455-12-25 17:46 J -43370156.88 -43370156.76 -43370156.58 0.0089 0.0072
 Neptune -123454-12-28 01:42 J -43369789.65 -43369789.43 -43369789.22 0.0089 0.0050
 Neptune -123453-12-29 17:32 J -43369422.01 -43369421.77 -43369421.52 0.0089 0.0017
 Neptune -123452-12-31 21:51 J -43369054.84 -43369054.59 -43369054.33 0.0089 0.0002
 Neptune -123450-01-03 14:54 J -43368687.10 -43368686.88 -43368686.63 0.0089 0.0036
 Saturn -123449-01-04 10:49 J -43368321.29 -43368321.05 -43368320.81 0.0295 0.0029
 Neptune -123449-01-05 18:30 J -43368319.92 -43368319.73 -43368319.52 0.0089 0.0053
 Neptune -123448-01-07 10:49 J -43367952.07 -43367952.05 -43367951.98 0.0088 0.0087
 Jupiter -123448-01-16 04:06 J -43367943.41 -43367943.33 -43367943.23 0.0519 0.0471
 Jupiter -123436-01-21 01:13 J -43363555.68 -43363555.45 -43363555.22 0.0520 0.0020
 Saturn -123436-06-25 06:30 J -43363400.46 -43363400.23 -43363399.99 0.0267 0.0056
 Uranus -123427-07-22 09:51 J -43360086.35 -43360086.09 -43360085.83 0.0148 0.0005
 Jupiter -123424-01-25 09:37 J -43359168.19 -43359168.10 -43359167.99 0.0521 0.0472
 Jupiter -123419-07-10 06:30 J -43357176.37 -43357176.23 -43357176.08 0.0507 0.0388
 Mars -123418-12-30 11:32 J -43356638.21 -43356638.02 -43356637.84 0.1700 0.0117
 Jupiter -123407-07-15 05:03 J -43352788.53 -43352788.29 -43352788.04 0.0506 0.0063
 Jupiter -123395-07-19 19:56 J -43348400.76 -43348400.67 -43348400.57 0.0505 0.0465
 Saturn -123390-01-05 16:34 J -43346770.05 -43346769.81 -43346769.57 0.0295 0.0076

Uranus -123386-01-27 06:01 J -43345287.45 -43345287.25 -43345287.03 0.0131 0.0061
 Uranus -123385-01-31 01:42 J -43344918.65 -43344918.43 -43344918.19 0.0131 0.0056
 Saturn -123377-06-26 04:49 J -43341849.56 -43341849.30 -43341849.05 0.0267 0.0007
 Neptune -123372-06-15 17:03 J -43340033.85 -43340033.79 -43340033.68 0.0089 0.0083
 Neptune -123371-06-18 02:54 J -43339666.58 -43339666.38 -43339666.14 0.0089 0.0052
 Neptune -123370-06-20 19:27 J -43339298.92 -43339298.69 -43339298.44 0.0089 0.0031
 Neptune -123369-06-22 02:10 J -43338931.67 -43338931.41 -43338931.14 0.0089 0.0002
 Neptune -123368-06-24 20:54 J -43338563.87 -43338563.63 -43338563.37 0.0089 0.0022
 Neptune -123367-06-27 02:25 J -43338196.58 -43338196.40 -43338196.18 0.0089 0.0056
 Pluto -123367-10-29 16:06 J -43338072.10 -43338071.83 -43338071.55 0.0063 0.0010
 Neptune -123366-06-29 21:51 J -43337828.70 -43337828.59 -43337828.42 0.0089 0.0075
 Jupiter -123353-01-21 01:42 J -43333240.65 -43333240.43 -43333240.20 0.0519 0.0086
 Mars -123345-06-20 21:37 J -43330166.81 -43330166.60 -43330166.39 0.1811 0.0187
 Uranus -123343-07-22 16:34 J -43329405.07 -43329404.81 -43329404.55 0.0148 0.0007
 Jupiter -123341-01-25 19:56 J -43328852.80 -43328852.67 -43328852.52 0.0521 0.0405
 Mars -123338-01-01 19:42 J -43327780.80 -43327780.68 -43327780.55 0.1698 0.1312
 Jupiter -123336-07-09 15:08 J -43326861.00 -43326860.87 -43326860.73 0.0507 0.0425
 Saturn -123331-01-06 05:03 J -43325219.50 -43325219.29 -43325219.07 0.0296 0.0126
 Jupiter -123324-07-14 03:08 J -43322473.61 -43322473.37 -43322473.14 0.0506 0.0018
 Saturn -123318-06-28 06:15 J -43320298.46 -43320298.24 -43320298.00 0.0267 0.0080
 Jupiter -123312-07-19 03:22 J -43318085.50 -43318085.36 -43318085.22 0.0505 0.0399
 Uranus -123302-01-27 15:51 J -43314606.07 -43314605.84 -43314605.62 0.0131 0.0047
 Uranus -123301-01-31 10:20 J -43314237.29 -43314237.07 -43314236.82 0.0131 0.0051
 Neptune -123291-12-25 01:13 J -43310256.54 -43310256.45 -43310256.30 0.0089 0.0079
 Neptune -123290-12-27 19:13 J -43309888.88 -43309888.70 -43309888.50 0.0089 0.0060
 Neptune -123289-12-28 23:18 J -43309521.76 -43309521.53 -43309521.27 0.0089 0.0028
 Neptune -123288-12-31 17:18 J -43309154.03 -43309153.78 -43309153.52 0.0089 0.0008
 Neptune -123286-01-02 21:22 J -43308786.84 -43308786.61 -43308786.35 0.0089 0.0025
 Neptune -123285-01-05 13:42 J -43308419.14 -43308418.93 -43308418.70 0.0089 0.0046
 Neptune -123284-01-06 19:56 J -43308051.79 -43308051.67 -43308051.54 0.0089 0.0076

Pluto -123277-04-24 00:58 J -43305387.71 -43305387.46 -43305387.20 0.0082 0.0001
 Saturn -123272-01-07 04:49 J -43303668.49 -43303668.30 -43303668.10 0.0296 0.0175
 Jupiter -123270-01-20 21:08 J -43302924.83 -43302924.62 -43302924.40 0.0519 0.0117
 Saturn -123259-06-28 22:49 J -43298747.76 -43298747.55 -43298747.33 0.0267 0.0149
 Uranus -123259-07-22 19:13 J -43298723.96 -43298723.70 -43298723.44 0.0148 0.0008
 Jupiter -123258-01-25 15:08 J -43298537.04 -43298536.87 -43298536.70 0.0521 0.0362
 Jupiter -123253-07-08 19:27 J -43296545.73 -43296545.69 -43296545.64 0.0507 0.0495
 Saturn -123244-12-31 20:10 J -43293082.76 -43293082.66 -43293082.54 0.0294 0.0264
 Jupiter -123241-07-13 20:25 J -43292157.88 -43292157.65 -43292157.42 0.0506 0.0081
 Saturn -123230-06-23 17:03 J -43288160.94 -43288160.79 -43288160.63 0.0268 0.0209
 Jupiter -123229-07-18 15:37 J -43287770.02 -43287769.85 -43287769.67 0.0505 0.0363
 Uranus -123218-01-28 00:15 J -43283924.70 -43283924.49 -43283924.27 0.0131 0.0056
 Uranus -123217-01-31 18:58 J -43283555.93 -43283555.71 -43283555.47 0.0131 0.0058
 Saturn -123213-01-08 16:20 J -43282117.93 -43282117.82 -43282117.72 0.0296 0.0264
 Mars -123213-12-27 22:49 J -43281763.56 -43281763.55 -43281763.54 0.1708 0.1700
 Neptune -123207-06-17 17:46 J -43279765.94 -43279765.76 -43279765.57 0.0089 0.0061
 Neptune -123206-06-19 23:32 J -43279398.75 -43279398.52 -43279398.29 0.0089 0.0042
 Neptune -123205-06-21 18:44 J -43279030.98 -43279030.72 -43279030.46 0.0089 0.0008
 Neptune -123204-06-24 00:01 J -43278663.74 -43278663.50 -43278663.23 0.0089 0.0013
 Neptune -123203-06-26 19:13 J -43278295.91 -43278295.70 -43278295.46 0.0089 0.0045
 Neptune -123202-06-29 02:10 J -43277928.56 -43277928.41 -43277928.23 0.0089 0.0067
 Saturn -123200-06-29 21:51 J -43277196.75 -43277196.59 -43277196.41 0.0267 0.0188
 Jupiter -123187-01-20 07:27 J -43272609.42 -43272609.19 -43272608.96 0.0519 0.0150
 Saturn -123184-01-01 15:37 J -43271532.01 -43271531.85 -43271531.70 0.0294 0.0218
 Jupiter -123175-01-24 20:10 J -43268221.84 -43268221.66 -43268221.48 0.0520 0.0299
 Uranus -123175-07-22 21:37 J -43268042.85 -43268042.60 -43268042.34 0.0148 0.0017
 Saturn -123171-06-24 19:42 J -43266609.89 -43266609.68 -43266609.46 0.0269 0.0126
 Jupiter -123158-07-14 03:08 J -43261842.60 -43261842.37 -43261842.13 0.0506 0.0134
 Jupiter -123146-07-18 19:13 J -43257454.89 -43257454.70 -43257454.52 0.0505 0.0304
 Saturn -123141-06-30 14:10 J -43255645.95 -43255645.91 -43255645.83 0.0267 0.0260

Uranus -123134-01-28 08:25 J -43253243.36 -43253243.15 -43253242.91 0.0131 0.0047
 Mars -123134-12-31 07:27 J -43252906.38 -43252906.19 -43252906.00 0.1705 0.0245
 Uranus -123133-02-01 03:08 J -43252874.60 -43252874.37 -43252874.13 0.0131 0.0053
 Neptune -123126-12-27 00:01 J -43249988.65 -43249988.50 -43249988.30 0.0089 0.0065
 Saturn -123125-01-03 11:03 J -43249981.27 -43249981.04 -43249980.81 0.0293 0.0121
 Neptune -123125-12-28 18:15 J -43249620.96 -43249620.74 -43249620.51 0.0089 0.0044
 Neptune -123124-12-30 23:18 J -43249253.77 -43249253.53 -43249253.28 0.0089 0.0010
 Neptune -123122-01-02 14:39 J -43248886.15 -43248885.89 -43248885.63 0.0089 0.0009
 Neptune -123121-01-04 21:51 J -43248518.79 -43248518.59 -43248518.36 0.0089 0.0043
 Pluto -123121-10-30 18:30 J -43248219.00 -43248218.73 -43248218.47 0.0063 0.0001
 Neptune -123120-01-06 09:51 J -43248151.28 -43248151.09 -43248150.89 0.0089 0.0060
 Saturn -123112-06-25 08:54 J -43245059.37 -43245059.13 -43245058.90 0.0269 0.0087
 Jupiter -123104-01-19 15:51 J -43242294.04 -43242293.84 -43242293.64 0.0519 0.0205
 Jupiter -123092-01-24 14:25 J -43237906.10 -43237905.90 -43237905.69 0.0520 0.0237
 Uranus -123091-07-23 03:51 J -43237361.59 -43237361.34 -43237361.08 0.0148 0.0012
 Uranus -123090-07-28 22:34 J -43236990.61 -43236990.56 -43236990.49 0.0148 0.0143
 Jupiter -123075-07-13 11:03 J -43231527.24 -43231527.04 -43231526.83 0.0506 0.0214
 Saturn -123066-01-04 12:58 J -43228430.19 -43228429.96 -43228429.73 0.0293 0.0045
 Jupiter -123063-07-18 09:22 J -43227139.32 -43227139.11 -43227138.90 0.0505 0.0255
 Mars -123061-06-21 04:49 J -43226435.50 -43226435.30 -43226435.10 0.1805 0.0459
 Saturn -123053-06-26 13:56 J -43223508.16 -43223507.92 -43223507.67 0.0269 0.0018
 Uranus -123050-01-28 17:46 J -43222561.98 -43222561.76 -43222561.53 0.0131 0.0053
 Uranus -123049-02-01 12:30 J -43222193.20 -43222192.98 -43222192.75 0.0131 0.0059
 Neptune -123043-06-16 21:22 J -43219865.71 -43219865.61 -43219865.46 0.0089 0.0077
 Neptune -123042-06-19 16:34 J -43219498.02 -43219497.81 -43219497.58 0.0089 0.0045
 Neptune -123041-06-20 21:51 J -43219130.82 -43219130.59 -43219130.33 0.0089 0.0025
 Neptune -123040-06-23 16:06 J -43218763.09 -43218762.83 -43218762.56 0.0089 0.0008
 Neptune -123039-06-25 23:32 J -43218395.75 -43218395.52 -43218395.27 0.0089 0.0028
 Neptune -123038-06-28 14:54 J -43218028.06 -43218027.88 -43218027.68 0.0089 0.0062
 Neptune -123037-06-30 02:10 J -43217660.48 -43217660.41 -43217660.29 0.0089 0.0082

Pluto -123031-04-26 10:06 J -43215534.31 -43215534.08 -43215533.84 0.0082 0.0020

Jupiter -123021-01-20 06:01 J -43211978.45 -43211978.25 -43211978.04 0.0520 0.0258

Jupiter -123009-01-24 16:06 J -43207591.05 -43207590.83 -43207590.61 0.0520 0.0156

Saturn -123007-01-05 17:03 J -43206879.04 -43206878.79 -43206878.54 0.0293 0.0030

Uranus -123007-07-23 15:08 J -43206680.13 -43206679.87 -43206679.61 0.0148 0.0011

123RD MILLENNIUM BCE

This is a list of transits of Moon in the 123rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-122994-06-28 07:42 J		-43201957.42	-43201957.18	-43201956.94	0.0269	0.0082	
Jupiter	-122992-07-12 18:01 J		-43201211.95	-43201211.75	-43201211.54	0.0507	0.0286	
Jupiter	-122980-07-17 08:39 J		-43196824.35	-43196824.14	-43196823.91	0.0505	0.0198	
Uranus	-122966-01-29 04:20 J		-43191880.55	-43191880.32	-43191880.09	0.0131	0.0041	
Uranus	-122965-02-01 22:34 J		-43191511.77	-43191511.56	-43191511.32	0.0131	0.0062	
Neptune	-122962-12-26 16:34 J		-43190087.92	-43190087.81	-43190087.63	0.0089	0.0074	
Neptune	-122961-12-27 23:32 J		-43189720.71	-43189720.52	-43189720.31	0.0089	0.0054	
Neptune	-122960-12-30 14:39 J		-43189353.14	-43189352.89	-43189352.63	0.0089	0.0022	
Neptune	-122958-01-01 23:32 J		-43188985.76	-43188985.52	-43188985.27	0.0089	0.0002	
Neptune	-122957-01-04 09:51 J		-43188618.32	-43188618.09	-43188617.82	0.0089	0.0031	
Neptune	-122956-01-05 22:20 J		-43188250.77	-43188250.57	-43188250.37	0.0089	0.0053	
Neptune	-122955-01-08 04:20 J		-43187883.39	-43187883.32	-43187883.20	0.0089	0.0083	

Saturn -122948-01-07 03:22 J -43185327.55 -43185327.36 -43185327.16 0.0294 0.0162
 Jupiter -122938-01-19 03:22 J -43181663.52 -43181663.36 -43181663.18 0.0519 0.0342
 Saturn -122935-06-29 18:58 J -43180405.91 -43180405.71 -43180405.51 0.0269 0.0151
 Jupiter -122926-01-23 22:06 J -43177275.80 -43177275.58 -43177275.36 0.0520 0.0054
 Uranus -122923-07-24 03:08 J -43175998.62 -43175998.37 -43175998.11 0.0148 0.0007
 Saturn -122919-01-01 11:32 J -43174741.08 -43174741.02 -43174740.94 0.0292 0.0279
 Jupiter -122909-07-11 16:34 J -43170896.96 -43170896.81 -43170896.65 0.0506 0.0371
 Saturn -122906-06-24 18:44 J -43169818.91 -43169818.72 -43169818.52 0.0271 0.0170
 Jupiter -122897-07-16 15:51 J -43166509.07 -43166508.84 -43166508.62 0.0505 0.0120
 Uranus -122882-01-29 15:51 J -43161199.07 -43161198.84 -43161198.61 0.0131 0.0042
 Uranus -122881-02-02 10:34 J -43160830.26 -43160830.06 -43160829.82 0.0131 0.0067
 Neptune -122878-06-18 19:13 J -43159597.88 -43159597.70 -43159597.49 0.0089 0.0056
 Neptune -122877-06-20 12:30 J -43159230.21 -43159229.98 -43159229.73 0.0089 0.0036
 Neptune -122876-06-22 21:08 J -43158862.87 -43158862.62 -43158862.37 0.0089 0.0003
 Saturn -122876-06-30 20:54 J -43158854.75 -43158854.63 -43158854.49 0.0268 0.0230
 Pluto -122876-10-31 16:20 J -43158731.94 -43158731.82 -43158731.64 0.0063 0.0053
 Neptune -122875-06-25 11:03 J -43158495.30 -43158495.04 -43158494.77 0.0089 0.0019
 Pluto -122875-11-02 06:44 J -43158365.45 -43158365.22 -43158364.96 0.0063 0.0018
 Neptune -122874-06-27 22:49 J -43158127.73 -43158127.55 -43158127.32 0.0089 0.0051
 Neptune -122873-06-29 09:22 J -43157760.24 -43157760.11 -43157759.93 0.0089 0.0073
 Saturn -122860-01-03 00:30 J -43153189.69 -43153189.48 -43153189.25 0.0292 0.0138
 Jupiter -122855-01-18 10:06 J -43151348.19 -43151348.08 -43151347.96 0.0519 0.0443
 Mars -122849-01-01 08:39 J -43149174.34 -43149174.14 -43149173.95 0.1709 0.0560
 Saturn -122847-06-25 21:51 J -43148267.82 -43148267.59 -43148267.35 0.0270 0.0076
 Jupiter -122843-01-22 21:51 J -43146960.82 -43146960.59 -43146960.35 0.0520 0.0056
 Uranus -122839-07-24 15:08 J -43145317.12 -43145316.87 -43145316.61 0.0148 0.0004
 Jupiter -122831-01-27 08:54 J -43142573.25 -43142573.13 -43142573.00 0.0521 0.0432
 Jupiter -122826-07-11 20:39 J -43140581.73 -43140581.64 -43140581.55 0.0507 0.0467
 Jupiter -122814-07-16 09:37 J -43136194.35 -43136194.10 -43136193.85 0.0506 0.0024
 Jupiter -122802-07-21 01:42 J -43131806.55 -43131806.43 -43131806.30 0.0505 0.0424

Saturn -122801-01-06 01:13 J -43131637.69 -43131637.45 -43131637.22 0.0293 0.0018
 Uranus -122798-01-30 03:08 J -43130517.60 -43130517.37 -43130517.13 0.0131 0.0032
 Uranus -122797-02-02 21:51 J -43130148.80 -43130148.59 -43130148.38 0.0131 0.0073
 Neptune -122797-12-27 11:46 J -43129820.20 -43129820.01 -43129819.80 0.0089 0.0059
 Neptune -122796-12-29 22:34 J -43129452.77 -43129452.56 -43129452.32 0.0089 0.0039
 Neptune -122794-01-01 09:08 J -43129085.38 -43129085.12 -43129084.85 0.0089 0.0005
 Neptune -122793-01-03 23:18 J -43128717.77 -43128717.53 -43128717.28 0.0089 0.0015
 Neptune -122792-01-05 05:03 J -43128350.49 -43128350.29 -43128350.05 0.0089 0.0049
 Neptune -122791-01-07 21:37 J -43127982.75 -43127982.60 -43127982.42 0.0089 0.0066
 Saturn -122788-06-27 18:01 J -43126716.00 -43126715.75 -43126715.50 0.0270 0.0007
 Pluto -122785-04-28 05:03 J -43125680.43 -43125680.29 -43125680.10 0.0082 0.0061
 Mars -122777-06-21 10:06 J -43122704.27 -43122704.08 -43122703.88 0.1799 0.0386
 Jupiter -122760-01-21 18:58 J -43116645.92 -43116645.71 -43116645.50 0.0519 0.0158
 Uranus -122755-07-24 23:03 J -43114635.80 -43114635.54 -43114635.28 0.0148 0.0018
 Jupiter -122748-01-26 14:10 J -43112258.08 -43112257.91 -43112257.74 0.0520 0.0331
 Saturn -122742-01-07 18:44 J -43110085.94 -43110085.72 -43110085.50 0.0293 0.0136
 Jupiter -122731-07-15 09:37 J -43105879.32 -43105879.10 -43105878.87 0.0506 0.0064
 Saturn -122729-06-29 00:15 J -43105164.70 -43105164.49 -43105164.26 0.0269 0.0128
 Jupiter -122719-07-20 08:10 J -43101491.33 -43101491.16 -43101490.97 0.0505 0.0327
 Uranus -122714-01-30 14:54 J -43099836.11 -43099835.88 -43099835.64 0.0131 0.0029
 Neptune -122714-06-18 08:25 J -43099697.27 -43099697.15 -43099696.97 0.0089 0.0073
 Saturn -122713-01-02 00:30 J -43099499.57 -43099499.48 -43099499.37 0.0291 0.0264
 Uranus -122713-02-03 09:51 J -43099467.29 -43099467.09 -43099466.88 0.0131 0.0075
 Neptune -122713-06-19 17:46 J -43099329.97 -43099329.76 -43099329.52 0.0089 0.0041
 Neptune -122712-06-22 05:46 J -43098962.52 -43098962.26 -43098961.99 0.0089 0.0020
 Neptune -122711-06-24 19:27 J -43098594.94 -43098594.69 -43098594.44 0.0089 0.0013
 Neptune -122710-06-27 04:06 J -43098227.56 -43098227.33 -43098227.06 0.0089 0.0033
 Neptune -122709-06-28 21:08 J -43097859.76 -43097859.62 -43097859.43 0.0089 0.0068
 Neptune -122708-07-01 04:06 J -43097492.38 -43097492.33 -43097492.26 0.0089 0.0086
 Saturn -122700-06-24 06:15 J -43094577.39 -43094577.24 -43094577.07 0.0271 0.0199

Mars -122698-06-25 03:37 J -43093846.39 -43093846.35 -43093846.30 0.1803 0.1748
 Saturn -122683-01-09 14:39 J -43088533.99 -43088533.89 -43088533.77 0.0294 0.0259
 Jupiter -122677-01-21 22:20 J -43086330.77 -43086330.57 -43086330.37 0.0519 0.0269
 Uranus -122671-07-25 04:49 J -43083954.56 -43083954.30 -43083954.04 0.0148 0.0005
 Saturn -122670-07-01 20:54 J -43083612.70 -43083612.63 -43083612.53 0.0268 0.0250
 Jupiter -122665-01-26 05:46 J -43081943.47 -43081943.26 -43081943.04 0.0520 0.0225
 Saturn -122654-01-03 23:18 J -43077947.73 -43077947.53 -43077947.32 0.0292 0.0144
 Jupiter -122648-07-14 08:25 J -43075564.38 -43075564.15 -43075563.92 0.0506 0.0165
 Mars -122645-12-29 17:46 J -43074299.92 -43074299.76 -43074299.60 0.1717 0.1072
 Saturn -122641-06-26 00:44 J -43073025.70 -43073025.47 -43073025.23 0.0270 0.0095
 Jupiter -122636-07-18 20:25 J -43071176.87 -43071176.65 -43071176.43 0.0506 0.0215
 Neptune -122633-12-26 19:42 J -43069919.80 -43069919.68 -43069919.50 0.0089 0.0071
 Neptune -122632-12-29 05:18 J -43069552.50 -43069552.28 -43069552.06 0.0089 0.0050
 Neptune -122631-12-31 20:39 J -43069184.88 -43069184.64 -43069184.39 0.0089 0.0018
 Uranus -122630-01-31 01:56 J -43069154.65 -43069154.42 -43069154.18 0.0131 0.0024
 Pluto -122630-11-02 19:13 J -43068878.89 -43068878.70 -43068878.49 0.0063 0.0041
 Neptune -122629-01-03 02:25 J -43068817.66 -43068817.40 -43068817.14 0.0089 0.0003
 Uranus -122629-02-03 20:25 J -43068785.82 -43068785.65 -43068785.44 0.0131 0.0085
 Pluto -122629-11-03 14:39 J -43068512.10 -43068511.89 -43068511.62 0.0063 0.0031
 Neptune -122628-01-04 19:56 J -43068449.89 -43068449.67 -43068449.43 0.0089 0.0035
 Neptune -122627-01-06 23:46 J -43068082.69 -43068082.51 -43068082.31 0.0089 0.0058
 Neptune -122626-01-09 17:03 J -43067714.82 -43067714.79 -43067714.71 0.0089 0.0087
 Saturn -122595-01-05 05:46 J -43056396.50 -43056396.26 -43056396.01 0.0292 0.0055
 Jupiter -122594-01-20 16:34 J -43056015.97 -43056015.81 -43056015.64 0.0519 0.0361
 Uranus -122587-07-25 09:51 J -43053273.34 -43053273.09 -43053272.83 0.0148 0.0017
 Jupiter -122582-01-25 14:39 J -43051628.10 -43051627.89 -43051627.68 0.0520 0.0162
 Saturn -122582-06-28 05:03 J -43051474.53 -43051474.29 -43051474.04 0.0270 0.0027
 Mars -122565-01-02 10:20 J -43045442.26 -43045442.07 -43045441.88 0.1714 0.0488
 Jupiter -122565-07-13 04:20 J -43045249.51 -43045249.32 -43045249.11 0.0507 0.0252
 Jupiter -122553-07-18 06:15 J -43040861.46 -43040861.24 -43040861.02 0.0506 0.0140

Neptune -122550-06-17 15:37 J -43039796.89 -43039796.85 -43039796.76 0.0089 0.0086
 Neptune -122549-06-19 01:56 J -43039429.62 -43039429.42 -43039429.19 0.0089 0.0052
 Neptune -122548-06-21 16:20 J -43039062.05 -43039061.82 -43039061.58 0.0089 0.0032
 Uranus -122547-01-27 08:54 J -43038842.19 -43038842.13 -43038842.03 0.0131 0.0124
 Neptune -122547-06-23 23:18 J -43038694.79 -43038694.53 -43038694.26 0.0089 0.0002
 Uranus -122546-01-31 13:56 J -43038473.16 -43038472.92 -43038472.68 0.0131 0.0018
 Neptune -122546-06-26 17:03 J -43038327.03 -43038326.79 -43038326.54 0.0089 0.0023
 Uranus -122545-02-04 08:39 J -43038104.32 -43038104.14 -43038103.93 0.0131 0.0083
 Neptune -122545-06-27 21:51 J -43037959.77 -43037959.59 -43037959.36 0.0089 0.0055
 Neptune -122544-06-30 17:32 J -43037591.88 -43037591.77 -43037591.63 0.0089 0.0077
 Pluto -122540-04-28 06:44 J -43036194.27 -43036194.22 -43036194.15 0.0082 0.0079
 Saturn -122536-01-06 17:46 J -43034844.99 -43034844.76 -43034844.52 0.0293 0.0061
 Saturn -122523-06-29 18:15 J -43029922.97 -43029922.74 -43029922.51 0.0269 0.0104
 Jupiter -122511-01-20 06:44 J -43025700.34 -43025700.22 -43025700.08 0.0518 0.0425
 Uranus -122504-07-20 16:49 J -43022961.86 -43022961.80 -43022961.73 0.0148 0.0142
 Uranus -122503-07-25 20:54 J -43022591.88 -43022591.63 -43022591.37 0.0148 0.0009
 Jupiter -122499-01-24 20:54 J -43021312.86 -43021312.63 -43021312.40 0.0519 0.0085
 Saturn -122494-06-24 13:13 J -43019336.07 -43019335.95 -43019335.81 0.0271 0.0231
 Mars -122493-06-21 10:20 J -43018973.21 -43018973.07 -43018972.93 0.1794 0.1151
 Jupiter -122487-01-29 05:18 J -43016925.35 -43016925.28 -43016925.20 0.0520 0.0487
 Jupiter -122482-07-13 19:42 J -43014933.86 -43014933.68 -43014933.49 0.0507 0.0310
 Saturn -122477-01-08 13:27 J -43013294.14 -43013293.94 -43013293.72 0.0293 0.0152
 Jupiter -122470-07-18 05:46 J -43010546.51 -43010546.26 -43010546.02 0.0506 0.0053
 Neptune -122469-12-25 23:03 J -43010019.54 -43010019.54 -43010019.49 0.0089 0.0089
 Neptune -122468-12-28 17:03 J -43009651.96 -43009651.79 -43009651.57 0.0089 0.0058
 Neptune -122467-12-30 22:06 J -43009284.80 -43009284.58 -43009284.33 0.0089 0.0036
 Neptune -122465-01-02 16:49 J -43008917.06 -43008916.80 -43008916.54 0.0089 0.0002
 Neptune -122464-01-03 21:22 J -43008549.85 -43008549.61 -43008549.36 0.0089 0.0018
 Saturn -122464-06-30 12:58 J -43008372.15 -43008371.96 -43008371.76 0.0269 0.0163
 Neptune -122463-01-06 13:42 J -43008182.12 -43008181.93 -43008181.69 0.0089 0.0052

Uranus -122463-01-27 20:39 J -43008160.71 -43008160.64 -43008160.53 0.0131 0.0123
 Neptune -122462-01-08 20:10 J -43007814.80 -43007814.66 -43007814.49 0.0089 0.0070
 Uranus -122462-02-01 02:25 J -43007791.64 -43007791.40 -43007791.16 0.0131 0.0014
 Uranus -122461-02-04 19:42 J -43007422.83 -43007422.68 -43007422.49 0.0131 0.0096
 Saturn -122435-06-25 12:44 J -42997785.15 -42997784.97 -42997784.77 0.0271 0.0163
 Jupiter -122428-01-19 07:27 J -42995385.25 -42995385.19 -42995385.12 0.0518 0.0497
 Uranus -122420-07-21 04:20 J -42992280.40 -42992280.32 -42992280.19 0.0148 0.0136
 Uranus -122419-07-26 11:18 J -42991910.27 -42991910.03 -42991909.78 0.0148 0.0031
 Saturn -122418-01-09 15:51 J -42991743.01 -42991742.84 -42991742.65 0.0293 0.0191
 Jupiter -122416-01-24 02:54 J -42990997.60 -42990997.38 -42990997.16 0.0519 0.0028
 Saturn -122405-07-01 17:18 J -42986820.84 -42986820.78 -42986820.70 0.0269 0.0258
 Jupiter -122404-01-29 03:37 J -42986609.45 -42986609.35 -42986609.24 0.0520 0.0454
 Jupiter -122399-07-12 15:37 J -42984619.00 -42984618.85 -42984618.70 0.0507 0.0389
 Saturn -122389-01-03 12:01 J -42981157.16 -42981157.00 -42981156.83 0.0291 0.0221
 Jupiter -122387-07-17 15:22 J -42980231.09 -42980230.86 -42980230.63 0.0506 0.0003
 Neptune -122385-06-18 12:58 J -42979529.10 -42979528.96 -42979528.76 0.0089 0.0067
 Neptune -122384-06-20 17:32 J -42979161.98 -42979161.77 -42979161.52 0.0089 0.0041
 Pluto -122384-11-04 07:42 J -42979025.39 -42979025.18 -42979024.94 0.0063 0.0032
 Neptune -122383-06-23 12:01 J -42978794.25 -42978794.00 -42978793.73 0.0089 0.0015
 Pluto -122383-11-05 14:25 J -42978659.07 -42978658.90 -42978658.69 0.0063 0.0045
 Neptune -122382-06-25 18:15 J -42978426.98 -42978426.74 -42978426.49 0.0089 0.0014
 Neptune -122381-06-27 10:06 J -42978059.30 -42978059.08 -42978058.82 0.0089 0.0038
 Neptune -122380-06-29 18:58 J -42977691.84 -42977691.71 -42977691.52 0.0089 0.0069
 Uranus -122379-01-28 10:20 J -42977479.19 -42977479.07 -42977478.90 0.0131 0.0108
 Uranus -122378-02-01 17:46 J -42977110.00 -42977109.76 -42977109.51 0.0131 0.0007
 Uranus -122377-02-05 10:06 J -42976741.23 -42976741.08 -42976740.92 0.0131 0.0100
 Saturn -122376-06-26 07:56 J -42976234.40 -42976234.17 -42976233.93 0.0271 0.0113
 Jupiter -122375-07-22 16:06 J -42975842.89 -42975842.83 -42975842.77 0.0506 0.0486
 Mars -122361-12-30 12:44 J -42970568.12 -42970567.97 -42970567.82 0.1722 0.1196
 Saturn -122359-01-10 02:39 J -42970192.45 -42970192.39 -42970192.31 0.0293 0.0278

Uranus -122336-07-21 19:13 J -42961598.82 -42961598.70 -42961598.54 0.0148 0.0125
 Uranus -122335-07-27 05:18 J -42961228.53 -42961228.28 -42961228.04 0.0148 0.0035
 Jupiter -122333-01-24 21:37 J -42960681.84 -42960681.60 -42960681.37 0.0519 0.0019
 Saturn -122330-01-04 01:13 J -42959606.62 -42959606.45 -42959606.26 0.0291 0.0191
 Jupiter -122321-01-29 07:13 J -42956294.34 -42956294.20 -42956294.05 0.0520 0.0403
 Saturn -122317-06-27 06:44 J -42954683.46 -42954683.22 -42954682.98 0.0271 0.0026
 Jupiter -122316-07-12 11:03 J -42954303.15 -42954303.04 -42954302.91 0.0508 0.0432
 Jupiter -122304-07-17 03:51 J -42949915.58 -42949915.34 -42949915.09 0.0507 0.0040
 Neptune -122304-12-27 18:01 J -42949751.89 -42949751.75 -42949751.57 0.0089 0.0069
 Neptune -122303-12-30 06:58 J -42949384.40 -42949384.21 -42949383.96 0.0089 0.0050
 Neptune -122301-01-01 19:27 J -42949016.93 -42949016.69 -42949016.44 0.0089 0.0015
 Neptune -122300-01-03 05:03 J -42948649.55 -42948649.29 -42948649.02 0.0089 0.0004
 Neptune -122299-01-05 19:56 J -42948281.88 -42948281.67 -42948281.43 0.0089 0.0040
 Neptune -122298-01-08 01:42 J -42947914.62 -42947914.43 -42947914.22 0.0089 0.0057
 Uranus -122295-01-29 01:56 J -42946797.55 -42946797.42 -42946797.28 0.0131 0.0109
 Uranus -122294-02-02 08:10 J -42946428.41 -42946428.16 -42946427.91 0.0131 0.0008
 Pluto -122294-05-01 00:01 J -42946340.69 -42946340.50 -42946340.27 0.0082 0.0047
 Uranus -122293-02-06 00:01 J -42946059.62 -42946059.50 -42946059.36 0.0131 0.0109
 Jupiter -122292-07-21 16:06 J -42945527.96 -42945527.83 -42945527.69 0.0505 0.0411
 Mars -122281-01-03 03:37 J -42941710.53 -42941710.35 -42941710.18 0.1719 0.0828
 Saturn -122271-01-04 19:13 J -42938055.93 -42938055.70 -42938055.46 0.0291 0.0102
 Saturn -122258-06-28 19:13 J -42933132.95 -42933132.70 -42933132.45 0.0271 0.0008
 Uranus -122252-07-22 05:46 J -42930917.42 -42930917.26 -42930917.06 0.0148 0.0108
 Uranus -122251-07-27 19:42 J -42930546.90 -42930546.68 -42930546.43 0.0148 0.0048
 Jupiter -122250-01-24 02:54 J -42930366.60 -42930366.38 -42930366.16 0.0519 0.0081
 Jupiter -122238-01-29 02:54 J -42925978.53 -42925978.38 -42925978.21 0.0520 0.0361
 Jupiter -122233-07-11 12:15 J -42923988.03 -42923987.99 -42923987.92 0.0507 0.0492
 Neptune -122221-06-17 15:51 J -42919628.91 -42919628.84 -42919628.72 0.0089 0.0082
 Jupiter -122221-07-16 11:18 J -42919600.25 -42919600.03 -42919599.80 0.0506 0.0101
 Neptune -122220-06-20 02:25 J -42919261.60 -42919261.40 -42919261.16 0.0089 0.0052

Neptune -122219-06-22 16:34 J -42918894.04 -42918893.81 -42918893.57 0.0089 0.0029
 Neptune -122218-06-24 23:46 J -42918526.77 -42918526.51 -42918526.24 0.0089 0.0004
 Neptune -122217-06-26 17:18 J -42918159.02 -42918158.78 -42918158.53 0.0089 0.0025
 Neptune -122216-06-28 22:34 J -42917791.74 -42917791.56 -42917791.35 0.0089 0.0058
 Neptune -122215-07-01 17:18 J -42917423.88 -42917423.78 -42917423.63 0.0089 0.0078
 Saturn -122212-01-05 15:37 J -42916505.08 -42916504.85 -42916504.62 0.0291 0.0057
 Uranus -122211-01-29 17:18 J -42916115.95 -42916115.78 -42916115.59 0.0131 0.0087
 Uranus -122210-02-02 21:51 J -42915746.84 -42915746.59 -42915746.33 0.0131 0.0009
 Uranus -122209-02-06 16:06 J -42915377.90 -42915377.83 -42915377.75 0.0131 0.0123
 Mars -122209-06-21 16:20 J -42915241.97 -42915241.82 -42915241.67 0.1788 0.1192
 Jupiter -122209-07-21 09:37 J -42915212.27 -42915212.10 -42915211.93 0.0506 0.0359
 Saturn -122199-06-29 21:08 J -42911581.85 -42911581.62 -42911581.38 0.0271 0.0079
 Uranus -122168-07-22 15:37 J -42900236.00 -42900235.85 -42900235.67 0.0148 0.0115
 Jupiter -122167-01-23 21:08 J -42900050.85 -42900050.62 -42900050.39 0.0519 0.0131
 Uranus -122167-07-28 08:10 J -42899865.39 -42899865.16 -42899864.92 0.0148 0.0056
 Jupiter -122155-01-28 08:25 J -42895663.33 -42895663.15 -42895662.96 0.0520 0.0310
 Saturn -122153-01-07 08:25 J -42894954.40 -42894954.15 -42894953.90 0.0291 0.0017
 Saturn -122140-06-30 10:49 J -42890031.24 -42890031.05 -42890030.84 0.0271 0.0155
 Neptune -122140-12-26 20:25 J -42889851.72 -42889851.65 -42889851.52 0.0089 0.0082
 Neptune -122139-12-29 15:22 J -42889484.02 -42889483.86 -42889483.66 0.0089 0.0064
 Jupiter -122138-07-16 19:56 J -42889284.90 -42889284.67 -42889284.43 0.0507 0.0149
 Pluto -122138-11-06 05:46 J -42889172.50 -42889172.26 -42889172.02 0.0063 0.0029
 Neptune -122138-12-31 20:10 J -42889116.89 -42889116.66 -42889116.40 0.0089 0.0028
 Pluto -122137-11-07 01:27 J -42888805.56 -42888805.44 -42888805.27 0.0063 0.0054
 Neptune -122136-01-02 14:25 J -42888749.15 -42888748.90 -42888748.63 0.0089 0.0010
 Neptune -122135-01-04 19:56 J -42888381.90 -42888381.67 -42888381.42 0.0089 0.0026
 Neptune -122134-01-07 11:18 J -42888014.25 -42888014.03 -42888013.80 0.0089 0.0044
 Neptune -122133-01-09 19:13 J -42887646.78 -42887646.70 -42887646.56 0.0089 0.0079
 Mars -122130-06-25 10:06 J -42886384.13 -42886384.08 -42886384.02 0.1791 0.1715
 Uranus -122127-01-30 09:08 J -42885434.27 -42885434.12 -42885433.92 0.0131 0.0092

Uranus -122126-02-03 10:06 J -42885065.32 -42885065.08 -42885064.82 0.0131 0.0029
 Jupiter -122126-07-21 12:58 J -42884897.15 -42884896.96 -42884896.77 0.0506 0.0302
 Uranus -122125-02-07 06:58 J -42884696.27 -42884696.21 -42884696.11 0.0131 0.0123
 Saturn -122111-06-25 08:10 J -42879444.31 -42879444.16 -42879444.00 0.0274 0.0203
 Saturn -122094-01-08 18:30 J -42873402.94 -42873402.73 -42873402.51 0.0291 0.0127
 Jupiter -122084-01-23 00:44 J -42869735.68 -42869735.47 -42869735.27 0.0519 0.0207
 Uranus -122084-07-22 21:08 J -42869554.79 -42869554.62 -42869554.42 0.0148 0.0100
 Uranus -122083-07-28 15:08 J -42869184.10 -42869183.87 -42869183.61 0.0148 0.0047
 Saturn -122081-07-01 17:32 J -42868479.94 -42868479.77 -42868479.60 0.0271 0.0201
 Mars -122077-12-30 23:03 J -42866836.69 -42866836.54 -42866836.40 0.1727 0.1218
 Jupiter -122072-01-27 20:39 J -42865347.84 -42865347.64 -42865347.44 0.0520 0.0238
 Neptune -122056-06-19 12:15 J -42859361.14 -42859360.99 -42859360.78 0.0089 0.0063
 Neptune -122055-06-21 17:32 J -42858993.99 -42858993.77 -42858993.55 0.0089 0.0043
 Jupiter -122055-07-16 03:22 J -42858969.57 -42858969.36 -42858969.15 0.0506 0.0212
 Neptune -122054-06-24 10:20 J -42858626.32 -42858626.07 -42858625.80 0.0089 0.0009
 Neptune -122053-06-25 17:46 J -42858259.01 -42858258.76 -42858258.51 0.0089 0.0010
 Saturn -122052-06-26 09:08 J -42857893.35 -42857893.12 -42857892.89 0.0273 0.0115
 Neptune -122052-06-28 07:13 J -42857891.41 -42857891.20 -42857890.95 0.0089 0.0046
 Neptune -122051-06-30 18:15 J -42857523.88 -42857523.74 -42857523.54 0.0089 0.0065
 Pluto -122048-05-02 00:58 J -42856487.67 -42856487.46 -42856487.22 0.0082 0.0030
 Uranus -122043-01-31 00:58 J -42854752.64 -42854752.46 -42854752.24 0.0131 0.0073
 Jupiter -122043-07-21 00:15 J -42854581.70 -42854581.49 -42854581.27 0.0505 0.0224
 Uranus -122042-02-03 22:34 J -42854383.81 -42854383.56 -42854383.30 0.0131 0.0023
 Saturn -122035-01-09 19:27 J -42851851.86 -42851851.69 -42851851.50 0.0291 0.0196
 Saturn -122006-01-04 04:20 J -42841265.50 -42841265.32 -42841265.13 0.0289 0.0183
 Jupiter -122001-01-23 08:10 J -42839420.35 -42839420.16 -42839419.96 0.0519 0.0299

122ND MILLENNIUM

BCE

This is a list of transits of Moon in the 122nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-122000-07-23 07:56 J	-42838873.32	-42838873.17	-42838872.99	0.0148	0.0111		
Uranus	-121999-07-29 00:15 J	-42838502.72	-42838502.49	-42838502.25	0.0148	0.0064		
Mars	-121997-01-03 14:39 J	-42837979.04	-42837978.89	-42837978.73	0.1724	0.1155		
Saturn	-121993-06-27 17:18 J	-42836342.01	-42836341.78	-42836341.55	0.0273	0.0054		
Jupiter	-121989-01-27 18:01 J	-42835032.97	-42835032.75	-42835032.52	0.0520	0.0157		
Neptune	-121975-12-28 15:22 J	-42829583.97	-42829583.86	-42829583.72	0.0089	0.0077		
Neptune	-121974-12-31 03:08 J	-42829216.60	-42829216.37	-42829216.13	0.0089	0.0042		
Neptune	-121972-01-01 17:17 J	-42828849.01	-42828848.78	-42828848.53	0.0089	0.0023		
Jupiter	-121972-07-15 03:22 J	-42828654.56	-42828654.36	-42828654.15	0.0507	0.0287		
Neptune	-121971-01-04 00:29 J	-42828481.74	-42828481.48	-42828481.21	0.0089	0.0011		
Neptune	-121970-01-06 17:17 J	-42828114.01	-42828113.78	-42828113.54	0.0089	0.0032		
Neptune	-121969-01-08 21:37 J	-42827746.76	-42827746.60	-42827746.41	0.0089	0.0065		
Neptune	-121968-01-10 15:51 J	-42827378.90	-42827378.84	-42827378.79	0.0089	0.0086		
Jupiter	-121960-07-19 18:01 J	-42824266.98	-42824266.75	-42824266.53	0.0506	0.0128		
Uranus	-121959-01-31 15:22 J	-42824071.05	-42824070.86	-42824070.64	0.0131	0.0074		
Uranus	-121958-02-04 09:51 J	-42823702.32	-42823702.09	-42823701.84	0.0131	0.0042		
Saturn	-121947-01-05 23:03 J	-42819713.78	-42819713.54	-42819713.30	0.0289	0.0088		
Saturn	-121934-06-29 21:51 J	-42814790.84	-42814790.59	-42814790.35	0.0273	0.0063		
Mars	-121925-06-21 18:15 J	-42811510.90	-42811510.74	-42811510.58	0.1782	0.1143		
Jupiter	-121918-01-22 04:05 J	-42809105.45	-42809105.33	-42809105.18	0.0519	0.0412		

Uranus -121916-07-23 21:51 J -42808191.77 -42808191.59 -42808191.39 0.0148 0.0092
 Uranus -121915-07-29 11:03 J -42807821.27 -42807821.04 -42807820.78 0.0148 0.0057
 Jupiter -121906-01-27 02:25 J -42804717.62 -42804717.40 -42804717.17 0.0520 0.0076
 Jupiter -121894-01-31 12:44 J -42800330.07 -42800329.97 -42800329.86 0.0520 0.0464
 Neptune -121892-06-18 15:22 J -42799460.97 -42799460.86 -42799460.72 0.0089 0.0076
 Pluto -121892-11-07 16:05 J -42799319.06 -42799318.83 -42799318.56 0.0063 0.0021
 Neptune -121891-06-20 22:20 J -42799093.76 -42799093.57 -42799093.36 0.0089 0.0057
 Pluto -121891-11-08 22:20 J -42798952.70 -42798952.57 -42798952.40 0.0063 0.0052
 Neptune -121890-06-23 15:37 J -42798726.09 -42798725.85 -42798725.60 0.0089 0.0022
 Neptune -121889-06-24 20:25 J -42798358.91 -42798358.65 -42798358.39 0.0089 0.0004
 Jupiter -121889-07-14 06:29 J -42798339.38 -42798339.23 -42798339.06 0.0507 0.0362
 Saturn -121888-01-07 17:46 J -42798161.99 -42798161.76 -42798161.53 0.0290 0.0061
 Neptune -121888-06-27 14:53 J -42797991.11 -42797990.88 -42797990.63 0.0089 0.0033
 Neptune -121887-06-29 19:27 J -42797623.88 -42797623.69 -42797623.46 0.0089 0.0051
 Neptune -121886-07-02 12:58 J -42797255.98 -42797255.96 -42797255.87 0.0089 0.0087
 Jupiter -121877-07-19 01:56 J -42793951.66 -42793951.42 -42793951.18 0.0506 0.0032
 Uranus -121875-02-01 07:27 J -42793389.40 -42793389.19 -42793388.96 0.0131 0.0063
 Saturn -121875-07-01 15:08 J -42793239.07 -42793238.87 -42793238.66 0.0272 0.0154
 Uranus -121874-02-05 00:29 J -42793020.69 -42793020.48 -42793020.23 0.0131 0.0047
 Mars -121846-06-25 08:39 J -42782653.27 -42782653.14 -42782653.01 0.1785 0.1384
 Saturn -121846-06-26 14:39 J -42782652.10 -42782651.89 -42782651.68 0.0274 0.0158
 Uranus -121832-07-24 19:56 J -42777509.88 -42777509.67 -42777509.45 0.0148 0.0076
 Uranus -121831-07-29 23:32 J -42777139.73 -42777139.52 -42777139.28 0.0148 0.0079
 Saturn -121829-01-10 09:51 J -42776610.27 -42776610.09 -42776609.89 0.0291 0.0184
 Jupiter -121823-01-25 17:03 J -42774403.01 -42774402.79 -42774402.57 0.0519 0.0039
 Saturn -121816-07-02 23:32 J -42771687.56 -42771687.52 -42771687.46 0.0271 0.0265
 Jupiter -121811-01-30 12:58 J -42770015.10 -42770014.96 -42770014.81 0.0521 0.0389
 Neptune -121810-12-30 05:32 J -42769316.46 -42769316.27 -42769316.05 0.0089 0.0057
 Neptune -121809-12-31 18:58 J -42768948.91 -42768948.71 -42768948.46 0.0089 0.0038
 Neptune -121807-01-03 03:37 J -42768581.61 -42768581.35 -42768581.08 0.0089 0.0002

Neptune -121806-01-05 20:25 J -42768213.89 -42768213.65 -42768213.39 0.0089 0.0017
 Jupiter -121806-07-14 00:58 J -42768024.57 -42768024.46 -42768024.34 0.0507 0.0441
 Neptune -121805-01-08 01:13 J -42767846.65 -42767846.45 -42767846.23 0.0089 0.0052
 Neptune -121804-01-09 18:58 J -42767478.84 -42767478.71 -42767478.53 0.0089 0.0070
 Pluto -121802-05-04 07:56 J -42766634.41 -42766634.17 -42766633.92 0.0082 0.0023
 Saturn -121800-01-03 22:34 J -42766023.73 -42766023.56 -42766023.38 0.0288 0.0192
 Jupiter -121794-07-18 19:56 J -42763636.90 -42763636.67 -42763636.45 0.0506 0.0052
 Mars -121793-12-31 19:56 J -42763104.82 -42763104.67 -42763104.52 0.1732 0.0915
 Uranus -121791-02-01 18:15 J -42762707.97 -42762707.74 -42762707.49 0.0131 0.0044
 Uranus -121790-02-05 20:53 J -42762338.84 -42762338.63 -42762338.40 0.0131 0.0051
 Saturn -121787-06-28 06:15 J -42761100.46 -42761100.24 -42761100.00 0.0273 0.0078
 Jupiter -121782-07-23 13:41 J -42759249.10 -42759248.93 -42759248.77 0.0505 0.0369
 Uranus -121748-07-25 08:53 J -42746828.35 -42746828.13 -42746827.89 0.0148 0.0074
 Uranus -121747-07-30 17:32 J -42746457.95 -42746457.77 -42746457.59 0.0148 0.0100
 Saturn -121741-01-06 15:22 J -42744472.10 -42744471.86 -42744471.63 0.0289 0.0100
 Jupiter -121740-01-24 15:51 J -42744088.06 -42744087.84 -42744087.62 0.0519 0.0185
 Jupiter -121728-01-29 09:08 J -42739700.28 -42739700.12 -42739699.94 0.0520 0.0330
 Saturn -121728-06-29 14:53 J -42739549.11 -42739548.88 -42739548.64 0.0273 0.0059
 Neptune -121727-06-20 01:27 J -42739193.60 -42739193.44 -42739193.25 0.0089 0.0063
 Neptune -121726-06-22 19:41 J -42738825.90 -42738825.68 -42738825.45 0.0089 0.0042
 Neptune -121725-06-24 00:29 J -42738458.73 -42738458.48 -42738458.23 0.0089 0.0011
 Neptune -121724-06-26 17:03 J -42738091.05 -42738090.79 -42738090.53 0.0089 0.0012
 Neptune -121723-06-29 00:58 J -42737723.66 -42737723.46 -42737723.23 0.0089 0.0043
 Neptune -121722-07-01 15:08 J -42737356.04 -42737355.87 -42737355.70 0.0089 0.0067
 Mars -121713-01-04 12:44 J -42734247.11 -42734246.97 -42734246.84 0.1729 0.1145
 Jupiter -121711-07-17 13:13 J -42733322.18 -42733321.95 -42733321.72 0.0507 0.0113
 Uranus -121707-02-02 09:37 J -42732026.32 -42732026.10 -42732025.85 0.0131 0.0037
 Uranus -121706-02-06 15:22 J -42731657.06 -42731656.86 -42731656.63 0.0131 0.0070
 Jupiter -121699-07-22 13:56 J -42728934.10 -42728933.92 -42728933.72 0.0506 0.0280
 Saturn -121682-01-08 10:49 J -42722920.29 -42722920.05 -42722919.80 0.0289 0.0046

Saturn -121669-07-01 07:27 J -42717997.41 -42717997.19 -42717996.97 0.0272 0.0134
 Uranus -121664-07-25 20:39 J -42716146.87 -42716146.64 -42716146.40 0.0148 0.0061
 Uranus -121663-07-31 14:10 J -42715776.07 -42715775.91 -42715775.72 0.0148 0.0106
 Jupiter -121657-01-25 00:29 J -42713772.68 -42713772.48 -42713772.29 0.0518 0.0280
 Pluto -121646-11-09 17:03 J -42709466.02 -42709465.79 -42709465.52 0.0063 0.0025
 Neptune -121646-12-29 05:32 J -42709416.36 -42709416.27 -42709416.12 0.0089 0.0079
 Jupiter -121645-01-29 10:05 J -42709385.30 -42709385.08 -42709384.86 0.0519 0.0202
 Pluto -121645-11-10 01:13 J -42709099.57 -42709099.45 -42709099.29 0.0063 0.0054
 Neptune -121645-12-31 00:29 J -42709048.70 -42709048.48 -42709048.26 0.0089 0.0045
 Neptune -121643-01-02 05:32 J -42708681.52 -42708681.27 -42708681.02 0.0089 0.0024
 Neptune -121642-01-05 00:01 J -42708313.75 -42708313.50 -42708313.23 0.0089 0.0009
 Neptune -121641-01-07 04:49 J -42707946.53 -42707946.30 -42707946.06 0.0089 0.0032
 Mars -121641-06-22 06:44 J -42707779.34 -42707779.22 -42707779.09 0.1776 0.1313
 Neptune -121640-01-08 21:37 J -42707578.78 -42707578.60 -42707578.41 0.0089 0.0062
 Saturn -121640-06-26 02:10 J -42707410.59 -42707410.41 -42707410.22 0.0274 0.0179
 Neptune -121639-01-11 04:05 J -42707211.35 -42707211.33 -42707211.25 0.0089 0.0087
 Jupiter -121628-07-16 21:37 J -42703006.82 -42703006.60 -42703006.37 0.0507 0.0203
 Uranus -121624-01-30 00:58 J -42701713.47 -42701713.46 -42701713.41 0.0132 0.0131
 Saturn -121623-01-09 13:56 J -42701369.13 -42701368.92 -42701368.70 0.0290 0.0114
 Uranus -121623-02-03 06:29 J -42701344.46 -42701344.23 -42701343.99 0.0131 0.0034
 Uranus -121622-02-07 01:56 J -42700975.61 -42700975.42 -42700975.22 0.0131 0.0085
 Jupiter -121616-07-21 06:44 J -42698619.43 -42698619.22 -42698619.01 0.0506 0.0220
 Saturn -121610-07-03 18:01 J -42696445.81 -42696445.75 -42696445.65 0.0272 0.0256
 Saturn -121594-01-03 23:03 J -42690782.61 -42690782.54 -42690782.46 0.0288 0.0273
 Saturn -121581-06-27 15:37 J -42685859.07 -42685858.85 -42685858.61 0.0273 0.0109
 Uranus -121580-07-26 11:17 J -42685465.27 -42685465.03 -42685464.80 0.0148 0.0046
 Uranus -121579-07-31 21:37 J -42685094.79 -42685094.60 -42685094.40 0.0148 0.0102
 Jupiter -121574-01-23 22:49 J -42683457.72 -42683457.55 -42683457.38 0.0518 0.0329
 Saturn -121564-01-10 15:37 J -42679817.99 -42679817.85 -42679817.69 0.0290 0.0229
 Neptune -121563-06-19 06:58 J -42679293.30 -42679293.21 -42679293.07 0.0089 0.0079

Jupiter -121562-01-28 21:08 J -42679069.84 -42679069.62 -42679069.39 0.0519 0.0097
 Neptune -121562-06-21 21:51 J -42678925.77 -42678925.59 -42678925.37 0.0089 0.0057
 Mars -121562-06-25 23:46 J -42678921.68 -42678921.51 -42678921.34 0.1780 0.0873
 Neptune -121561-06-23 06:44 J -42678558.45 -42678558.22 -42678557.97 0.0089 0.0025
 Neptune -121560-06-25 17:32 J -42678191.03 -42678190.77 -42678190.50 0.0089 0.0003
 Neptune -121559-06-28 06:44 J -42677823.44 -42677823.22 -42677822.97 0.0089 0.0031
 Neptune -121558-06-30 14:25 J -42677456.10 -42677455.90 -42677455.67 0.0089 0.0051
 Neptune -121557-07-02 08:10 J -42677088.23 -42677088.16 -42677088.09 0.0089 0.0085
 Pluto -121556-05-05 09:08 J -42676781.35 -42676781.12 -42676780.88 0.0082 0.0025
 Jupiter -121545-07-16 00:58 J -42672691.63 -42672691.46 -42672691.28 0.0507 0.0333
 Uranus -121540-01-30 17:03 J -42671031.87 -42671031.79 -42671031.68 0.0132 0.0121
 Uranus -121539-02-03 22:34 J -42670662.81 -42670662.56 -42670662.31 0.0131 0.0020
 Uranus -121538-02-07 17:32 J -42670293.94 -42670293.77 -42670293.58 0.0131 0.0088
 Saturn -121535-01-04 17:17 J -42669231.93 -42669231.78 -42669231.60 0.0288 0.0211
 Jupiter -121533-07-20 16:20 J -42668304.05 -42668303.82 -42668303.59 0.0506 0.0162
 Saturn -121522-06-29 18:01 J -42664307.99 -42664307.75 -42664307.51 0.0273 0.0005
 Mars -121508-01-01 02:25 J -42659373.57 -42659373.40 -42659373.22 0.1737 0.0611
 Saturn -121505-01-12 21:08 J -42658266.70 -42658266.62 -42658266.53 0.0291 0.0271
 Uranus -121496-07-26 22:34 J -42654783.81 -42654783.56 -42654783.31 0.0148 0.0041
 Uranus -121495-08-01 01:56 J -42654413.58 -42654413.42 -42654413.25 0.0148 0.0112
 Jupiter -121491-01-23 08:25 J -42653142.32 -42653142.15 -42653141.98 0.0518 0.0358
 Neptune -121481-12-30 02:10 J -42649148.58 -42649148.41 -42649148.20 0.0089 0.0061
 Neptune -121479-01-01 08:53 J -42648781.34 -42648781.13 -42648780.89 0.0089 0.0038
 Jupiter -121479-01-28 04:49 J -42648754.52 -42648754.30 -42648754.08 0.0519 0.0059
 Neptune -121478-01-04 01:41 J -42648413.70 -42648413.43 -42648413.17 0.0089 0.0005
 Neptune -121477-01-06 10:49 J -42648046.29 -42648046.05 -42648045.80 0.0089 0.0017
 Saturn -121476-01-05 14:53 J -42647681.10 -42647680.88 -42647680.65 0.0288 0.0130
 Neptune -121476-01-07 21:51 J -42647678.79 -42647678.59 -42647678.35 0.0089 0.0050
 Neptune -121475-01-10 10:49 J -42647311.18 -42647311.05 -42647310.88 0.0089 0.0070
 Jupiter -121467-02-02 01:13 J -42644366.47 -42644366.45 -42644366.42 0.0520 0.0517

Saturn -121463-06-30 12:15 J -42642757.23 -42642756.99 -42642756.75 0.0273 0.0047
 Jupiter -121462-07-16 04:34 J -42642376.46 -42642376.31 -42642376.16 0.0508 0.0379
 Uranus -121456-01-31 11:46 J -42640350.07 -42640350.01 -42640349.90 0.0132 0.0123
 Uranus -121455-02-04 06:58 J -42639981.46 -42639981.21 -42639980.96 0.0131 0.0004
 Uranus -121454-02-08 12:58 J -42639612.12 -42639611.96 -42639611.77 0.0131 0.0089
 Jupiter -121450-07-21 06:44 J -42637988.45 -42637988.22 -42637987.99 0.0507 0.0083
 Mars -121429-01-04 19:56 J -42630515.72 -42630515.67 -42630515.63 0.1734 0.1673
 Saturn -121417-01-07 15:22 J -42626130.10 -42626129.86 -42626129.62 0.0288 0.0073
 Uranus -121412-07-27 02:39 J -42624102.64 -42624102.39 -42624102.13 0.0148 0.0047
 Uranus -121411-08-01 15:51 J -42623731.95 -42623731.84 -42623731.68 0.0148 0.0125
 Jupiter -121408-01-23 02:10 J -42622826.53 -42622826.41 -42622826.29 0.0518 0.0441
 Saturn -121404-07-01 13:13 J -42621206.16 -42621205.95 -42621205.71 0.0273 0.0129
 Pluto -121400-11-10 14:53 J -42619613.10 -42619612.88 -42619612.61 0.0063 0.0031
 Pluto -121399-11-12 03:22 J -42619246.48 -42619246.36 -42619246.18 0.0063 0.0052
 Neptune -121398-06-20 22:49 J -42619025.72 -42619025.55 -42619025.35 0.0089 0.0063
 Neptune -121397-06-22 13:27 J -42618658.13 -42618657.94 -42618657.70 0.0089 0.0046
 Jupiter -121396-01-27 11:03 J -42618439.27 -42618439.04 -42618438.80 0.0519 0.0037
 Neptune -121396-06-24 19:27 J -42618290.94 -42618290.69 -42618290.42 0.0089 0.0010
 Neptune -121395-06-27 13:13 J -42617923.20 -42617922.95 -42617922.69 0.0089 0.0009
 Neptune -121394-06-29 17:17 J -42617555.99 -42617555.78 -42617555.55 0.0089 0.0045
 Neptune -121393-07-01 11:46 J -42617188.18 -42617188.01 -42617187.82 0.0089 0.0064
 Jupiter -121384-02-01 08:39 J -42614051.25 -42614051.14 -42614051.03 0.0520 0.0450
 Jupiter -121379-07-15 14:39 J -42612061.04 -42612060.89 -42612060.74 0.0507 0.0398
 Saturn -121375-06-25 23:46 J -42610619.65 -42610619.51 -42610619.36 0.0276 0.0223
 Uranus -121372-01-31 23:46 J -42609668.62 -42609668.51 -42609668.36 0.0132 0.0115
 Uranus -121371-02-04 23:17 J -42609299.77 -42609299.53 -42609299.29 0.0131 0.0001
 Uranus -121370-02-09 01:13 J -42608930.60 -42608930.45 -42608930.28 0.0131 0.0104
 Jupiter -121367-07-20 07:27 J -42607673.42 -42607673.19 -42607672.96 0.0506 0.0010
 Saturn -121358-01-08 04:34 J -42604579.55 -42604579.31 -42604579.08 0.0288 0.0012
 Mars -121357-06-22 09:08 J -42604048.24 -42604048.12 -42604048.00 0.1770 0.1284

Jupiter -121355-07-25 07:56 J -42603285.23 -42603285.17 -42603285.10 0.0506 0.0484
 Saturn -121345-07-02 09:22 J -42599655.29 -42599655.11 -42599654.92 0.0273 0.0174
 Uranus -121328-07-27 18:29 J -42593420.96 -42593420.73 -42593420.48 0.0148 0.0038
 Uranus -121327-08-02 09:22 J -42593050.22 -42593050.11 -42593049.99 0.0148 0.0132
 Neptune -121317-12-29 01:13 J -42589248.54 -42589248.45 -42589248.33 0.0089 0.0081
 Saturn -121316-06-26 22:05 J -42589068.76 -42589068.58 -42589068.39 0.0276 0.0190
 Neptune -121316-12-31 15:22 J -42588881.06 -42588880.86 -42588880.63 0.0089 0.0046
 Neptune -121314-01-03 00:01 J -42588513.75 -42588513.50 -42588513.24 0.0089 0.0027
 Neptune -121313-01-05 17:32 J -42588146.02 -42588145.77 -42588145.51 0.0089 0.0010
 Jupiter -121313-01-28 07:41 J -42588123.42 -42588123.18 -42588122.94 0.0519 0.0016
 Neptune -121312-01-06 22:49 J -42587778.79 -42587778.55 -42587778.29 0.0089 0.0028
 Neptune -121311-01-09 17:32 J -42587410.95 -42587410.77 -42587410.59 0.0089 0.0064
 Neptune -121310-01-11 21:37 J -42587043.68 -42587043.60 -42587043.49 0.0089 0.0082
 Pluto -121310-05-07 13:13 J -42586928.18 -42586927.95 -42586927.72 0.0082 0.0026
 Jupiter -121301-02-01 19:56 J -42583735.78 -42583735.67 -42583735.55 0.0520 0.0451
 Saturn -121299-01-08 19:13 J -42583028.93 -42583028.70 -42583028.45 0.0288 0.0060
 Jupiter -121296-07-15 06:15 J -42581745.34 -42581745.24 -42581745.12 0.0507 0.0449
 Uranus -121288-02-01 10:34 J -42578987.21 -42578987.06 -42578986.89 0.0132 0.0100
 Uranus -121287-02-05 18:01 J -42578618.00 -42578617.75 -42578617.50 0.0132 0.0004
 Uranus -121286-02-09 11:32 J -42578249.11 -42578249.02 -42578248.90 0.0131 0.0119
 Saturn -121286-07-03 22:05 J -42578104.69 -42578104.58 -42578104.44 0.0273 0.0229
 Jupiter -121284-07-19 18:15 J -42577357.98 -42577357.74 -42577357.49 0.0507 0.0009
 Mars -121278-06-26 06:44 J -42575190.35 -42575190.22 -42575190.09 0.1774 0.1229
 Jupiter -121272-07-24 17:17 J -42572969.92 -42572969.78 -42572969.64 0.0506 0.0398
 Saturn -121257-06-27 17:32 J -42567517.99 -42567517.77 -42567517.53 0.0276 0.0107
 Uranus -121244-07-28 16:34 J -42562739.06 -42562738.81 -42562738.54 0.0147 0.0021
 Uranus -121243-08-02 18:58 J -42562368.76 -42562368.71 -42562368.62 0.0148 0.0142
 Saturn -121240-01-09 17:46 J -42561477.99 -42561477.76 -42561477.52 0.0288 0.0100
 Neptune -121234-06-20 02:25 J -42559125.43 -42559125.40 -42559125.33 0.0089 0.0087
 Neptune -121233-06-21 16:34 J -42558758.02 -42558757.81 -42558757.58 0.0089 0.0051

Neptune -121232-06-24 01:27 J -42558390.65 -42558390.44 -42558390.19 0.0089 0.0033
 Neptune -121231-06-26 12:29 J -42558023.25 -42558022.98 -42558022.72 0.0089 0.0003
 Jupiter -121230-01-27 20:39 J -42557807.86 -42557807.64 -42557807.42 0.0519 0.0118
 Neptune -121230-06-29 02:10 J -42557655.64 -42557655.41 -42557655.16 0.0089 0.0022
 Neptune -121229-06-30 09:22 J -42557288.31 -42557288.11 -42557287.91 0.0089 0.0057
 Neptune -121228-07-03 02:25 J -42556920.50 -42556920.40 -42556920.25 0.0089 0.0077
 Mars -121224-01-01 16:20 J -42555642.00 -42555641.82 -42555641.64 0.1743 0.0474
 Jupiter -121218-02-01 06:44 J -42553420.38 -42553420.22 -42553420.06 0.0520 0.0372
 Uranus -121204-02-02 09:08 J -42548305.31 -42548305.12 -42548304.93 0.0132 0.0085
 Uranus -121203-02-06 02:53 J -42547936.62 -42547936.38 -42547936.12 0.0132 0.0012
 Uranus -121202-02-10 09:37 J -42547567.12 -42547567.10 -42547567.04 0.0131 0.0130
 Jupiter -121201-07-19 07:41 J -42547042.42 -42547042.18 -42547041.93 0.0506 0.0070
 Saturn -121198-06-29 10:20 J -42545967.29 -42545967.07 -42545966.83 0.0276 0.0069
 Jupiter -121189-07-23 21:08 J -42542654.77 -42542654.62 -42542654.47 0.0505 0.0381
 Saturn -121181-01-11 22:05 J -42539926.74 -42539926.58 -42539926.40 0.0288 0.0206
 Uranus -121160-07-29 02:39 J -42532057.65 -42532057.39 -42532057.13 0.0147 0.0001
 Pluto -121154-11-12 09:37 J -42529760.30 -42529760.10 -42529759.88 0.0063 0.0037
 Pluto -121153-11-13 01:41 J -42529393.62 -42529393.43 -42529393.17 0.0063 0.0039
 Saturn -121152-01-04 20:10 J -42529340.82 -42529340.66 -42529340.47 0.0286 0.0203
 Neptune -121152-12-30 18:29 J -42528980.87 -42528980.73 -42528980.53 0.0089 0.0068
 Neptune -121150-01-02 06:58 J -42528613.44 -42528613.21 -42528612.97 0.0089 0.0033
 Neptune -121149-01-04 16:49 J -42528246.06 -42528245.80 -42528245.53 0.0089 0.0013
 Neptune -121148-01-06 08:25 J -42527878.38 -42527878.15 -42527877.89 0.0089 0.0023
 Neptune -121147-01-08 14:39 J -42527511.10 -42527510.89 -42527510.64 0.0089 0.0042
 Jupiter -121147-01-27 00:44 J -42527492.69 -42527492.47 -42527492.26 0.0519 0.0135
 Neptune -121146-01-11 09:22 J -42527143.23 -42527143.11 -42527142.98 0.0089 0.0077
 Saturn -121139-06-30 05:46 J -42524416.50 -42524416.26 -42524416.02 0.0276 0.0007
 Jupiter -121135-01-31 19:27 J -42523104.89 -42523104.69 -42523104.49 0.0520 0.0271
 Saturn -121122-01-13 02:53 J -42518375.44 -42518375.38 -42518375.30 0.0288 0.0273
 Uranus -121120-02-02 17:46 J -42517623.97 -42517623.76 -42517623.54 0.0132 0.0073

Uranus -121119-02-07 00:44 J -42517254.71 -42517254.47 -42517254.22 0.0132 0.0021
 Jupiter -121118-07-19 16:05 J -42516727.05 -42516726.83 -42516726.60 0.0506 0.0179
 Jupiter -121106-07-24 03:08 J -42512339.57 -42512339.37 -42512339.17 0.0506 0.0291
 Saturn -121093-01-07 08:53 J -42507789.35 -42507789.13 -42507788.89 0.0286 0.0128
 Saturn -121080-07-01 08:25 J -42502865.37 -42502865.15 -42502864.90 0.0276 0.0100
 Uranus -121076-07-29 22:34 J -42501375.81 -42501375.56 -42501375.31 0.0147 0.0013
 Mars -121073-06-23 01:13 J -42500316.60 -42500316.45 -42500316.30 0.1764 0.1118
 Neptune -121069-06-20 17:17 J -42498857.89 -42498857.78 -42498857.61 0.0089 0.0074
 Neptune -121068-06-23 09:37 J -42498490.32 -42498490.10 -42498489.84 0.0089 0.0038
 Neptune -121067-06-25 16:49 J -42498123.03 -42498122.80 -42498122.55 0.0089 0.0020
 Neptune -121066-06-28 05:03 J -42497755.54 -42497755.29 -42497755.02 0.0089 0.0017
 Neptune -121065-06-29 16:34 J -42497388.02 -42497387.81 -42497387.56 0.0089 0.0036
 Jupiter -121064-01-26 01:41 J -42497177.63 -42497177.43 -42497177.23 0.0519 0.0243
 Pluto -121064-05-08 12:44 J -42497075.16 -42497074.97 -42497074.77 0.0082 0.0053
 Neptune -121064-07-02 00:58 J -42497020.59 -42497020.46 -42497020.28 0.0089 0.0072
 Jupiter -121052-01-31 00:58 J -42492789.65 -42492789.46 -42492789.26 0.0520 0.0253
 Saturn -121051-06-26 04:49 J -42492278.34 -42492278.30 -42492278.25 0.0278 0.0272
 Uranus -121036-02-03 12:44 J -42486942.18 -42486941.97 -42486941.76 0.0132 0.0065
 Uranus -121035-02-07 10:05 J -42486573.33 -42486573.08 -42486572.83 0.0132 0.0031
 Jupiter -121035-07-18 19:41 J -42486411.89 -42486411.68 -42486411.46 0.0507 0.0198
 Saturn -121034-01-09 00:01 J -42486237.74 -42486237.50 -42486237.25 0.0286 0.0014
 Jupiter -121023-07-23 11:17 J -42482024.26 -42482024.03 -42482023.81 0.0505 0.0187
 Saturn -121021-07-02 20:39 J -42481313.83 -42481313.64 -42481313.43 0.0275 0.0165

121ST MILLENNIUM BCE

This is a list of transits of Moon in the 121st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-120994-06-26 08:25 J		-42471459.32	-42471459.15	-42471458.98	0.1768	0.0984	
Saturn	-120992-06-27 12:58 J		-42470727.15	-42470726.96	-42470726.75	0.0278	0.0160	
Uranus	-120992-07-30 02:53 J		-42470694.64	-42470694.38	-42470694.11	0.0147	0.0019	
Neptune	-120988-12-29 20:10 J		-42469080.78	-42469080.66	-42469080.52	0.0089	0.0076	
Neptune	-120986-01-01 12:44 J		-42468713.17	-42468712.97	-42468712.74	0.0089	0.0053	
Neptune	-120985-01-03 23:03 J		-42468345.78	-42468345.54	-42468345.29	0.0089	0.0021	
Neptune	-120984-01-05 11:17 J		-42467978.30	-42467978.03	-42467977.76	0.0089	0.0002	
Neptune	-120983-01-08 00:29 J		-42467610.70	-42467610.48	-42467610.24	0.0089	0.0036	
Neptune	-120982-01-10 08:10 J		-42467243.35	-42467243.16	-42467242.95	0.0089	0.0057	
Jupiter	-120981-01-26 00:01 J		-42466862.66	-42466862.50	-42466862.33	0.0518	0.0359	
Saturn	-120975-01-10 13:27 J		-42464686.15	-42464685.94	-42464685.71	0.0287	0.0107	
Jupiter	-120969-01-30 21:08 J		-42462474.83	-42462474.62	-42462474.40	0.0519	0.0108	
Uranus	-120952-02-04 00:15 J		-42456260.71	-42456260.49	-42456260.25	0.0132	0.0061	
Jupiter	-120952-07-17 18:01 J		-42456096.92	-42456096.75	-42456096.57	0.0507	0.0322	
Uranus	-120951-02-08 00:58 J		-42455891.68	-42455891.46	-42455891.22	0.0132	0.0043	
Saturn	-120946-01-05 07:13 J		-42454099.28	-42454099.20	-42454099.11	0.0284	0.0265	
Mars	-120940-01-02 14:53 J		-42451910.06	-42451909.88	-42451909.70	0.1748	0.0223	
Jupiter	-120940-07-22 11:17 J		-42451709.26	-42451709.03	-42451708.80	0.0506	0.0145	
Saturn	-120933-06-29 07:13 J		-42449175.45	-42449175.20	-42449174.95	0.0277	0.0049	
Saturn	-120916-01-12 06:29 J		-42443134.34	-42443134.23	-42443134.12	0.0288	0.0255	
Uranus	-120908-07-30 12:01 J		-42440013.24	-42440013.00	-42440012.75	0.0147	0.0019	
Pluto	-120908-11-13 08:25 J		-42439907.28	-42439907.15	-42439906.97	0.0063	0.0052	

Pluto -120907-11-14 19:27 J -42439540.93 -42439540.69 -42439540.43 0.0063 0.0018
 Neptune -120905-06-20 05:17 J -42438957.36 -42438957.28 -42438957.14 0.0089 0.0080
 Neptune -120904-06-22 09:08 J -42438590.29 -42438590.12 -42438589.91 0.0089 0.0060
 Neptune -120903-06-25 02:39 J -42438222.63 -42438222.39 -42438222.13 0.0089 0.0025
 Neptune -120902-06-27 08:53 J -42437855.38 -42437855.13 -42437854.89 0.0089 0.0005
 Neptune -120901-06-28 23:03 J -42437487.77 -42437487.54 -42437487.27 0.0089 0.0031
 Neptune -120900-07-01 08:39 J -42437120.33 -42437120.14 -42437119.92 0.0089 0.0050
 Neptune -120899-07-03 18:44 J -42436752.77 -42436752.72 -42436752.62 0.0089 0.0085
 Jupiter -120898-01-24 22:05 J -42436547.71 -42436547.58 -42436547.44 0.0518 0.0421
 Saturn -120887-01-07 00:15 J -42432547.71 -42432547.49 -42432547.27 0.0285 0.0117
 Jupiter -120886-01-29 15:22 J -42432160.08 -42432159.86 -42432159.63 0.0519 0.0008
 Jupiter -120874-02-03 15:08 J -42427771.97 -42427771.87 -42427771.76 0.0520 0.0460
 Saturn -120874-07-02 01:13 J -42427623.69 -42427623.45 -42427623.21 0.0276 0.0045
 Jupiter -120869-07-16 09:51 J -42425782.20 -42425782.09 -42425781.97 0.0507 0.0439
 Uranus -120868-02-04 09:37 J -42425579.31 -42425579.10 -42425578.88 0.0132 0.0061
 Uranus -120867-02-08 14:25 J -42425210.14 -42425209.90 -42425209.66 0.0132 0.0051
 Jupiter -120857-07-21 09:37 J -42421394.33 -42421394.10 -42421393.87 0.0506 0.0004
 Saturn -120845-06-25 20:39 J -42417036.68 -42417036.64 -42417036.58 0.0278 0.0272
 Jupiter -120845-07-26 00:44 J -42417006.53 -42417006.47 -42417006.40 0.0505 0.0486
 Saturn -120828-01-08 14:25 J -42410996.15 -42410995.90 -42410995.66 0.0286 0.0025
 Uranus -120825-07-25 13:13 J -42409701.97 -42409701.95 -42409701.90 0.0147 0.0145
 Uranus -120824-07-30 23:03 J -42409331.80 -42409331.54 -42409331.27 0.0147 0.0020
 Neptune -120823-12-31 13:27 J -42408813.09 -42408812.94 -42408812.73 0.0089 0.0064
 Neptune -120821-01-03 07:56 J -42408445.40 -42408445.17 -42408444.91 0.0089 0.0036
 Neptune -120820-01-04 16:05 J -42408078.08 -42408077.83 -42408077.58 0.0089 0.0007
 Neptune -120819-01-07 06:29 J -42407710.48 -42407710.23 -42407709.96 0.0089 0.0019
 Neptune -120818-01-09 18:15 J -42407342.95 -42407342.74 -42407342.53 0.0089 0.0048
 Pluto -120818-05-10 05:03 J -42407222.34 -42407222.29 -42407222.19 0.0082 0.0078
 Neptune -120817-01-12 03:22 J -42406975.48 -42406975.36 -42406975.18 0.0089 0.0073
 Pluto -120817-05-11 09:22 J -42406855.19 -42406855.11 -42406854.99 0.0081 0.0075

Saturn -120815-07-03 12:58 J -42406072.13 -42406071.96 -42406071.78 0.0276 0.0183
 Jupiter -120803-01-28 13:13 J -42401845.18 -42401844.95 -42401844.72 0.0519 0.0059
 Jupiter -120791-02-02 10:34 J -42397457.22 -42397457.06 -42397456.90 0.0520 0.0366
 Mars -120789-06-23 02:39 J -42396585.54 -42396585.39 -42396585.25 0.1758 0.1216
 Saturn -120786-06-28 16:05 J -42395485.02 -42395484.83 -42395484.64 0.0277 0.0176
 Jupiter -120786-07-16 11:46 J -42395467.08 -42395467.01 -42395466.93 0.0508 0.0478
 Uranus -120784-02-05 01:41 J -42394897.65 -42394897.43 -42394897.20 0.0132 0.0060
 Uranus -120783-02-08 20:39 J -42394528.84 -42394528.64 -42394528.40 0.0132 0.0059
 Jupiter -120774-07-21 06:58 J -42391079.43 -42391079.21 -42391078.98 0.0507 0.0078
 Saturn -120769-01-11 07:27 J -42389444.42 -42389444.19 -42389443.95 0.0286 0.0118
 Jupiter -120762-07-25 23:46 J -42386691.69 -42386691.51 -42386691.33 0.0506 0.0327
 Saturn -120756-07-04 23:03 J -42384520.60 -42384520.54 -42384520.46 0.0275 0.0261
 Uranus -120741-07-26 04:34 J -42379020.41 -42379020.31 -42379020.19 0.0147 0.0133
 Saturn -120740-01-04 16:49 J -42378857.88 -42378857.80 -42378857.70 0.0284 0.0262
 Neptune -120740-06-21 22:34 J -42378689.70 -42378689.56 -42378689.38 0.0089 0.0069
 Uranus -120740-07-31 09:37 J -42378650.34 -42378650.10 -42378649.84 0.0147 0.0029
 Neptune -120739-06-24 02:53 J -42378322.60 -42378322.38 -42378322.16 0.0089 0.0042
 Neptune -120738-06-26 19:13 J -42377954.95 -42377954.70 -42377954.43 0.0089 0.0015
 Neptune -120737-06-28 02:10 J -42377587.65 -42377587.41 -42377587.16 0.0089 0.0012
 Neptune -120736-06-30 15:22 J -42377220.09 -42377219.86 -42377219.62 0.0089 0.0041
 Neptune -120735-07-03 02:39 J -42376852.53 -42376852.39 -42376852.21 0.0089 0.0068
 Saturn -120727-06-30 04:05 J -42373933.55 -42373933.33 -42373933.09 0.0277 0.0078
 Jupiter -120720-01-27 11:32 J -42371530.23 -42371530.02 -42371529.81 0.0518 0.0225
 Saturn -120710-01-12 20:10 J -42367892.82 -42367892.66 -42367892.49 0.0287 0.0217
 Mars -120710-06-26 16:20 J -42367727.98 -42367727.82 -42367727.66 0.1762 0.0778
 Jupiter -120708-02-01 10:49 J -42367142.24 -42367142.05 -42367141.86 0.0520 0.0275
 Uranus -120700-02-05 08:53 J -42364216.34 -42364216.13 -42364215.90 0.0132 0.0052
 Uranus -120699-02-09 12:44 J -42363847.18 -42363846.97 -42363846.73 0.0132 0.0063
 Jupiter -120691-07-20 06:01 J -42360764.46 -42360764.25 -42360764.04 0.0507 0.0182
 Saturn -120681-01-06 23:03 J -42357306.71 -42357306.54 -42357306.35 0.0285 0.0188

Jupiter -120679-07-25 00:29 J -42356376.67 -42356376.48 -42356376.28 0.0506 0.0299
 Saturn -120668-07-01 11:32 J -42352382.26 -42352382.02 -42352381.79 0.0276 0.0039
 Pluto -120661-11-15 07:41 J -42349688.44 -42349688.18 -42349687.91 0.0063 0.0004
 Neptune -120659-12-30 23:32 J -42348912.66 -42348912.52 -42348912.35 0.0089 0.0073
 Neptune -120657-01-02 13:56 J -42348545.12 -42348544.92 -42348544.71 0.0089 0.0052
 Uranus -120657-07-26 20:39 J -42348338.75 -42348338.64 -42348338.48 0.0147 0.0124
 Mars -120656-01-02 13:56 J -42348179.11 -42348178.92 -42348178.72 0.1754 0.0445
 Neptune -120656-01-03 21:51 J -42348177.84 -42348177.59 -42348177.32 0.0089 0.0018
 Uranus -120656-08-01 01:13 J -42347968.70 -42347968.45 -42347968.20 0.0147 0.0044
 Neptune -120655-01-06 15:51 J -42347810.09 -42347809.84 -42347809.58 0.0089 0.0004
 Neptune -120654-01-08 20:53 J -42347442.85 -42347442.63 -42347442.38 0.0089 0.0039
 Neptune -120653-01-11 15:51 J -42347075.02 -42347074.84 -42347074.63 0.0089 0.0058
 Saturn -120651-01-14 02:10 J -42346341.43 -42346341.41 -42346341.36 0.0287 0.0285
 Jupiter -120637-01-27 19:56 J -42341214.87 -42341214.67 -42341214.47 0.0518 0.0240
 Jupiter -120625-02-01 19:56 J -42336826.87 -42336826.67 -42336826.46 0.0519 0.0224
 Saturn -120622-01-08 01:27 J -42335755.66 -42335755.44 -42335755.21 0.0285 0.0115
 Uranus -120616-02-05 21:22 J -42333534.85 -42333534.61 -42333534.35 0.0132 0.0039
 Uranus -120615-02-10 02:39 J -42333165.59 -42333165.39 -42333165.17 0.0132 0.0065
 Saturn -120609-07-02 15:08 J -42330831.08 -42330830.87 -42330830.66 0.0276 0.0130
 Jupiter -120608-07-19 13:27 J -42330449.14 -42330448.94 -42330448.73 0.0507 0.0212
 Jupiter -120596-07-24 07:13 J -42326061.43 -42326061.20 -42326060.98 0.0506 0.0186
 Saturn -120580-06-27 09:22 J -42320244.23 -42320244.11 -42320243.96 0.0279 0.0233
 Neptune -120576-06-21 05:46 J -42318789.33 -42318789.26 -42318789.15 0.0089 0.0083
 Neptune -120575-06-23 10:34 J -42318422.24 -42318422.06 -42318421.83 0.0089 0.0054
 Neptune -120574-06-26 04:05 J -42318054.56 -42318054.33 -42318054.08 0.0089 0.0027
 Neptune -120573-06-27 08:10 J -42317687.42 -42317687.16 -42317686.91 0.0089 0.0001
 Uranus -120573-07-27 05:03 J -42317657.45 -42317657.29 -42317657.11 0.0147 0.0109
 Neptune -120572-06-30 01:13 J -42317319.68 -42317319.45 -42317319.18 0.0089 0.0029
 Uranus -120572-08-01 19:56 J -42317286.90 -42317286.67 -42317286.43 0.0147 0.0056
 Pluto -120571-05-12 19:56 J -42317002.91 -42317002.67 -42317002.42 0.0081 0.0026

Neptune -120571-07-02 06:44 J -42316952.40 -42316952.22 -42316952.00 0.0089 0.0055
 Neptune -120570-07-04 22:20 J -42316584.65 -42316584.57 -42316584.48 0.0089 0.0083
 Saturn -120563-01-08 22:49 J -42314204.79 -42314204.55 -42314204.30 0.0285 0.0028
 Jupiter -120554-01-27 04:05 J -42310899.50 -42310899.33 -42310899.15 0.0518 0.0334
 Saturn -120550-07-04 14:53 J -42309280.05 -42309279.88 -42309279.71 0.0276 0.0187
 Jupiter -120542-02-01 02:53 J -42306511.60 -42306511.38 -42306511.16 0.0519 0.0102
 Uranus -120532-02-06 14:10 J -42302853.14 -42302852.91 -42302852.66 0.0132 0.0030
 Uranus -120531-02-10 08:53 J -42302484.35 -42302484.13 -42302483.91 0.0132 0.0065
 Jupiter -120525-07-18 20:25 J -42300133.81 -42300133.65 -42300133.47 0.0507 0.0338
 Saturn -120521-06-28 09:37 J -42298693.28 -42298693.10 -42298692.90 0.0279 0.0178
 Jupiter -120513-07-23 10:49 J -42295746.28 -42295746.05 -42295745.81 0.0506 0.0148
 Mars -120505-06-23 16:05 J -42292853.98 -42292853.83 -42292853.67 0.1753 0.1095
 Saturn -120504-01-09 18:01 J -42292653.99 -42292653.75 -42292653.51 0.0285 0.0050
 Neptune -120495-12-30 09:37 J -42289012.14 -42289012.10 -42289012.00 0.0089 0.0086
 Neptune -120493-01-01 18:29 J -42288644.88 -42288644.73 -42288644.53 0.0089 0.0064
 Neptune -120492-01-03 10:05 J -42288277.33 -42288277.08 -42288276.82 0.0089 0.0029
 Neptune -120491-01-05 22:05 J -42287909.83 -42287909.58 -42287909.33 0.0089 0.0008
 Saturn -120491-07-05 10:20 J -42287729.18 -42287729.07 -42287728.95 0.0276 0.0241
 Neptune -120490-01-08 07:41 J -42287542.43 -42287542.18 -42287541.91 0.0089 0.0026
 Neptune -120489-01-10 23:17 J -42287174.73 -42287174.53 -42287174.30 0.0089 0.0047
 Uranus -120489-07-27 20:39 J -42286975.82 -42286975.64 -42286975.42 0.0147 0.0099
 Neptune -120488-01-12 04:49 J -42286807.37 -42286807.30 -42286807.16 0.0089 0.0082
 Uranus -120488-08-02 00:15 J -42286605.71 -42286605.49 -42286605.25 0.0147 0.0057
 Jupiter -120471-01-26 15:08 J -42280584.00 -42280583.87 -42280583.72 0.0518 0.0398
 Saturn -120462-06-30 06:01 J -42277142.47 -42277142.25 -42277142.02 0.0279 0.0105
 Jupiter -120459-01-31 17:46 J -42276195.98 -42276195.76 -42276195.53 0.0519 0.0121
 Uranus -120448-02-06 20:25 J -42272171.88 -42272171.65 -42272171.40 0.0132 0.0025
 Uranus -120447-02-11 02:53 J -42271802.59 -42271802.38 -42271802.16 0.0132 0.0069
 Saturn -120445-01-11 11:17 J -42271103.26 -42271103.03 -42271102.79 0.0285 0.0096
 Jupiter -120442-07-19 07:41 J -42269818.36 -42269818.18 -42269818.00 0.0507 0.0328

Jupiter -120430-07-23 20:53 J -42265430.87 -42265430.63 -42265430.39 0.0507 0.0096
 Mars -120426-06-27 06:15 J -42263996.37 -42263996.24 -42263996.10 0.1756 0.1101
 Pluto -120415-11-16 20:25 J -42259835.81 -42259835.65 -42259835.43 0.0063 0.0043
 Pluto -120414-11-18 07:27 J -42259469.41 -42259469.19 -42259468.91 0.0063 0.0029
 Neptune -120411-06-22 22:05 J -42258521.72 -42258521.58 -42258521.37 0.0089 0.0066
 Neptune -120410-06-25 11:03 J -42258154.25 -42258154.04 -42258153.81 0.0089 0.0041
 Neptune -120409-06-26 17:32 J -42257787.02 -42257786.77 -42257786.50 0.0089 0.0012
 Neptune -120408-06-29 10:05 J -42257419.32 -42257419.08 -42257418.83 0.0089 0.0015
 Neptune -120407-07-01 14:25 J -42257052.11 -42257051.90 -42257051.67 0.0089 0.0044
 Neptune -120406-07-04 08:10 J -42256684.28 -42256684.16 -42256683.98 0.0089 0.0072
 Uranus -120405-07-28 02:39 J -42256294.57 -42256294.39 -42256294.19 0.0147 0.0094
 Uranus -120404-08-02 07:56 J -42255924.41 -42255924.17 -42255923.91 0.0147 0.0050
 Saturn -120403-07-01 00:01 J -42255591.74 -42255591.50 -42255591.26 0.0279 0.0029
 Jupiter -120388-01-26 05:32 J -42250268.40 -42250268.27 -42250268.13 0.0518 0.0409
 Saturn -120386-01-12 05:32 J -42249552.48 -42249552.27 -42249552.03 0.0285 0.0134
 Jupiter -120376-01-31 06:29 J -42245880.46 -42245880.23 -42245880.00 0.0519 0.0012
 Mars -120372-01-02 23:03 J -42244447.73 -42244447.54 -42244447.34 0.1760 0.0324
 Jupiter -120364-02-04 15:37 J -42241492.93 -42241492.85 -42241492.75 0.0520 0.0481
 Uranus -120364-02-07 06:44 J -42241490.46 -42241490.22 -42241489.95 0.0132 0.0027
 Uranus -120363-02-11 10:20 J -42241121.25 -42241121.07 -42241120.86 0.0132 0.0075
 Jupiter -120359-07-18 21:08 J -42239502.75 -42239502.62 -42239502.49 0.0508 0.0417
 Saturn -120357-01-06 11:17 J -42238966.11 -42238966.03 -42238965.94 0.0282 0.0262
 Jupiter -120347-07-23 06:44 J -42235115.46 -42235115.22 -42235114.97 0.0506 0.0016
 Saturn -120344-07-01 17:46 J -42234041.00 -42234040.76 -42234040.52 0.0279 0.0024
 Neptune -120329-01-01 00:29 J -42228744.59 -42228744.48 -42228744.32 0.0089 0.0076
 Neptune -120328-01-02 20:39 J -42228376.86 -42228376.64 -42228376.40 0.0089 0.0042
 Neptune -120327-01-05 03:37 J -42228009.59 -42228009.35 -42228009.10 0.0089 0.0020
 Saturn -120327-01-13 02:25 J -42228001.57 -42228001.40 -42228001.21 0.0285 0.0202
 Neptune -120326-01-07 20:25 J -42227641.91 -42227641.65 -42227641.38 0.0089 0.0015
 Neptune -120325-01-10 06:15 J -42227274.46 -42227274.24 -42227274.00 0.0089 0.0037

Pluto -120325-05-12 23:32 J -42227150.72 -42227150.52 -42227150.32 0.0082 0.0047
 Neptune -120324-01-11 17:46 J -42226906.89 -42226906.76 -42226906.57 0.0089 0.0071
 Uranus -120321-07-28 02:39 J -42225613.58 -42225613.39 -42225613.19 0.0146 0.0095
 Uranus -120320-08-02 16:49 J -42225243.03 -42225242.80 -42225242.55 0.0147 0.0043
 Saturn -120298-01-07 08:25 J -42217415.33 -42217415.15 -42217414.95 0.0282 0.0176
 Jupiter -120293-01-31 15:51 J -42215565.08 -42215564.84 -42215564.61 0.0519 0.0011
 Saturn -120285-07-02 12:15 J -42212490.22 -42212489.99 -42212489.75 0.0279 0.0064
 Uranus -120281-02-04 10:49 J -42211178.10 -42211178.05 -42211178.00 0.0133 0.0129
 Jupiter -120281-02-05 03:22 J -42211177.46 -42211177.36 -42211177.26 0.0520 0.0465
 Uranus -120280-02-07 20:25 J -42210808.89 -42210808.65 -42210808.40 0.0132 0.0030
 Uranus -120279-02-11 15:22 J -42210440.04 -42210439.86 -42210439.65 0.0132 0.0082
 Jupiter -120276-07-18 06:44 J -42209187.32 -42209187.22 -42209187.11 0.0507 0.0449
 Jupiter -120264-07-22 14:39 J -42204800.13 -42204799.89 -42204799.65 0.0506 0.0009
 Jupiter -120252-07-27 12:44 J -42200412.10 -42200411.97 -42200411.83 0.0506 0.0406
 Neptune -120247-06-22 12:29 J -42198621.11 -42198620.98 -42198620.85 0.0089 0.0076
 Neptune -120246-06-24 18:15 J -42198253.93 -42198253.74 -42198253.53 0.0089 0.0052
 Neptune -120245-06-26 06:15 J -42197886.48 -42197886.24 -42197885.97 0.0089 0.0022
 Neptune -120244-06-28 17:46 J -42197519.01 -42197518.76 -42197518.52 0.0089 0.0003
 Neptune -120243-07-01 01:41 J -42197151.66 -42197151.43 -42197151.17 0.0089 0.0033
 Neptune -120242-07-03 17:17 J -42196783.96 -42196783.78 -42196783.58 0.0089 0.0058
 Neptune -120241-07-04 22:05 J -42196416.59 -42196416.58 -42196416.51 0.0089 0.0088
 Saturn -120239-01-08 08:39 J -42195864.36 -42195864.14 -42195863.91 0.0283 0.0089
 Uranus -120237-07-28 16:34 J -42194932.00 -42194931.81 -42194931.60 0.0146 0.0097
 Uranus -120236-08-02 18:29 J -42194561.96 -42194561.73 -42194561.48 0.0147 0.0046
 Saturn -120226-07-04 09:08 J -42190939.32 -42190939.12 -42190938.89 0.0279 0.0126
 Mars -120221-06-24 02:10 J -42189122.54 -42189122.41 -42189122.28 0.1747 0.1298
 Jupiter -120210-01-30 23:17 J -42185249.77 -42185249.53 -42185249.30 0.0519 0.0080
 Jupiter -120198-02-04 11:32 J -42180862.19 -42180862.02 -42180861.85 0.0520 0.0347
 Uranus -120197-02-05 00:01 J -42180496.57 -42180496.50 -42180496.43 0.0133 0.0127
 Saturn -120197-06-27 18:29 J -42180352.87 -42180352.73 -42180352.58 0.0281 0.0230

Uranus -120196-02-07 22:20 J -42180127.80 -42180127.57 -42180127.32 0.0132 0.0032
 Uranus -120195-02-12 04:49 J -42179758.48 -42179758.30 -42179758.10 0.0132 0.0088
 Jupiter -120193-07-17 11:32 J -42178872.04 -42178872.02 -42178871.99 0.0508 0.0505
 Jupiter -120181-07-21 22:49 J -42174484.78 -42174484.55 -42174484.32 0.0507 0.0114
 Saturn -120180-01-09 14:10 J -42174313.14 -42174312.91 -42174312.67 0.0283 0.0014
 Jupiter -120169-07-26 22:05 J -42170096.74 -42170096.58 -42170096.41 0.0505 0.0353
 Pluto -120168-11-18 12:44 J -42169617.21 -42169616.97 -42169616.70 0.0063 0.0019
 Saturn -120167-07-05 09:22 J -42169388.25 -42169388.11 -42169387.96 0.0279 0.0216
 Pluto -120167-11-20 06:29 J -42169250.29 -42169250.23 -42169250.13 0.0063 0.0061
 Neptune -120166-12-31 10:05 J -42168844.13 -42168844.08 -42168843.98 0.0089 0.0085
 Neptune -120164-01-02 05:46 J -42168476.44 -42168476.26 -42168476.03 0.0089 0.0055
 Neptune -120163-01-04 11:46 J -42168109.25 -42168109.01 -42168108.76 0.0089 0.0029
 Neptune -120162-01-07 07:27 J -42167741.45 -42167741.19 -42167740.93 0.0089 0.0002
 Neptune -120161-01-09 13:41 J -42167374.16 -42167373.93 -42167373.68 0.0089 0.0026
 Neptune -120160-01-11 06:01 J -42167006.44 -42167006.25 -42167006.03 0.0089 0.0058
 Neptune -120159-01-13 15:22 J -42166638.93 -42166638.86 -42166638.74 0.0089 0.0082
 Uranus -120153-07-29 04:05 J -42164250.51 -42164250.33 -42164250.15 0.0146 0.0099
 Uranus -120152-08-03 07:27 J -42163880.43 -42163880.19 -42163879.94 0.0147 0.0059
 Mars -120142-06-27 23:03 J -42160264.68 -42160264.54 -42160264.41 0.1751 0.1138
 Saturn -120138-06-29 22:05 J -42158801.79 -42158801.58 -42158801.35 0.0281 0.0133
 Jupiter -120127-01-29 23:46 J -42154934.73 -42154934.51 -42154934.29 0.0519 0.0198
 Saturn -120121-01-12 00:58 J -42152761.69 -42152761.46 -42152761.23 0.0283 0.0074
 Jupiter -120115-02-03 14:10 J -42150547.09 -42150546.91 -42150546.73 0.0520 0.0314
 Uranus -120113-02-05 09:08 J -42149815.14 -42149815.12 -42149815.05 0.0133 0.0131
 Uranus -120112-02-08 09:22 J -42149446.37 -42149446.11 -42149445.86 0.0132 0.0025
 Uranus -120111-02-12 14:25 J -42149077.07 -42149076.90 -42149076.72 0.0132 0.0091
 Jupiter -120098-07-22 04:34 J -42144169.52 -42144169.31 -42144169.09 0.0506 0.0148
 Mars -120088-01-03 09:08 J -42140716.30 -42140716.12 -42140715.94 0.1766 0.0573
 Jupiter -120086-07-27 00:29 J -42139781.67 -42139781.48 -42139781.29 0.0506 0.0299
 Neptune -120083-06-22 00:29 J -42138720.53 -42138720.48 -42138720.38 0.0089 0.0085

Neptune -120082-06-24 04:20 J -42138353.47 -42138353.32 -42138353.13 0.0089 0.0066
 Neptune -120081-06-25 19:41 J -42137985.91 -42137985.68 -42137985.42 0.0089 0.0032
 Neptune -120080-06-28 02:53 J -42137618.62 -42137618.38 -42137618.13 0.0089 0.0011
 Neptune -120079-06-30 13:56 J -42137251.17 -42137250.92 -42137250.66 0.0089 0.0024
 Saturn -120079-07-01 06:29 J -42137250.47 -42137250.23 -42137249.98 0.0281 0.0046
 Pluto -120078-05-16 00:15 J -42136931.74 -42136931.49 -42136931.23 0.0081 0.0004
 Neptune -120078-07-03 01:41 J -42136883.62 -42136883.43 -42136883.20 0.0089 0.0046
 Neptune -120077-07-04 09:37 J -42136516.21 -42136516.10 -42136515.97 0.0089 0.0079
 Uranus -120069-07-29 10:05 J -42133569.26 -42133569.08 -42133568.87 0.0146 0.0093
 Uranus -120068-08-03 23:46 J -42133198.71 -42133198.51 -42133198.27 0.0147 0.0074
 Saturn -120062-01-13 14:39 J -42131210.06 -42131209.89 -42131209.71 0.0284 0.0196
 Jupiter -120044-01-28 19:13 J -42124619.90 -42124619.70 -42124619.49 0.0519 0.0249
 Saturn -120033-01-08 12:58 J -42120623.16 -42120622.96 -42120622.75 0.0281 0.0150
 Jupiter -120032-02-02 15:51 J -42120232.05 -42120231.84 -42120231.64 0.0520 0.0196
 Uranus -120029-02-05 13:27 J -42119133.94 -42119133.94 -42119133.93 0.0133 0.0133
 Uranus -120028-02-08 23:46 J -42118764.76 -42118764.51 -42118764.26 0.0132 0.0015
 Uranus -120027-02-12 18:44 J -42118395.90 -42118395.72 -42118395.53 0.0132 0.0088
 Saturn -120020-07-02 20:10 J -42115698.90 -42115698.66 -42115698.40 0.0280 0.0037
 Jupiter -120015-07-21 03:37 J -42113854.54 -42113854.35 -42113854.15 0.0507 0.0245
 Jupiter -120003-07-26 00:29 J -42109466.70 -42109466.48 -42109466.25 0.0506 0.0150

120TH MILLENNIUM BCE

This is a list of transits of Moon in the 120th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-120000-01-01	15:22	J	-42108576.01	-42108575.86	-42108575.69	0.0089	0.0069
Neptune	-119999-01-03	22:20	J	-42108208.80	-42108208.57	-42108208.32	0.0089	0.0038
Neptune	-119998-01-06	18:01	J	-42107840.99	-42107840.75	-42107840.48	0.0089	0.0012
Neptune	-119997-01-08	23:32	J	-42107473.76	-42107473.52	-42107473.26	0.0089	0.0019
Neptune	-119996-01-10	18:44	J	-42107105.94	-42107105.72	-42107105.49	0.0089	0.0046
Neptune	-119995-01-13	00:44	J	-42106738.58	-42106738.47	-42106738.30	0.0089	0.0074
Uranus	-119985-07-30	01:27	J	-42102887.64	-42102887.44	-42102887.21	0.0146	0.0083
Uranus	-119984-08-04	05:32	J	-42102517.47	-42102517.27	-42102517.05	0.0147	0.0079
Saturn	-119974-01-10	06:29	J	-42099071.47	-42099071.23	-42099070.98	0.0282	0.0029
Jupiter	-119961-01-28	18:58	J	-42094304.87	-42094304.71	-42094304.55	0.0518	0.0378
Saturn	-119961-07-04	12:29	J	-42094147.19	-42094146.98	-42094146.77	0.0279	0.0147
Jupiter	-119949-02-02	16:20	J	-42089917.04	-42089916.82	-42089916.60	0.0519	0.0064
Uranus	-119945-02-06	04:20	J	-42088452.36	-42088452.32	-42088452.24	0.0133	0.0129
Uranus	-119944-02-09	05:32	J	-42088083.51	-42088083.27	-42088083.02	0.0132	0.0008
Uranus	-119943-02-13	09:37	J	-42087714.29	-42087714.10	-42087713.90	0.0132	0.0086
Mars	-119937-06-24	15:22	J	-42085390.98	-42085390.86	-42085390.74	0.1742	0.1331
Saturn	-119932-06-29	04:20	J	-42083560.49	-42083560.32	-42083560.13	0.0281	0.0184
Jupiter	-119932-07-20	07:27	J	-42083539.33	-42083539.19	-42083539.03	0.0507	0.0374
Pluto	-119921-11-20	04:20	J	-42079398.59	-42079398.32	-42079398.05	0.0063	0.0002
Jupiter	-119920-07-24	23:46	J	-42079151.75	-42079151.51	-42079151.27	0.0506	0.0110
Neptune	-119918-06-23	15:51	J	-42078452.94	-42078452.84	-42078452.70	0.0089	0.0077
Neptune	-119917-06-25	09:08	J	-42078085.34	-42078085.12	-42078084.88	0.0089	0.0040
Neptune	-119916-06-27	13:13	J	-42077718.18	-42077717.95	-42077717.70	0.0089	0.0022
Saturn	-119915-01-11	23:46	J	-42077519.74	-42077519.51	-42077519.27	0.0283	0.0070
Neptune	-119915-06-30	04:34	J	-42077350.57	-42077350.31	-42077350.05	0.0089	0.0014
Neptune	-119914-07-02	12:01	J	-42076983.21	-42076983.00	-42076982.75	0.0089	0.0034
Neptune	-119913-07-03	22:49	J	-42076615.70	-42076615.55	-42076615.37	0.0089	0.0069

Uranus -119901-07-30 10:34 J -42072206.26 -42072206.06 -42072205.83 0.0146 0.0073
 Uranus -119900-08-04 11:46 J -42071836.23 -42071836.01 -42071835.78 0.0147 0.0073
 Jupiter -119878-01-27 15:08 J -42063989.93 -42063989.87 -42063989.80 0.0518 0.0496
 Saturn -119873-06-30 21:37 J -42062008.84 -42062008.60 -42062008.35 0.0280 0.0051
 Jupiter -119866-02-01 13:13 J -42059602.18 -42059601.95 -42059601.72 0.0519 0.0004
 Uranus -119861-02-06 14:10 J -42057770.99 -42057770.91 -42057770.79 0.0133 0.0122
 Uranus -119860-02-09 12:15 J -42057402.25 -42057401.99 -42057401.74 0.0132 0.0009
 Uranus -119859-02-13 19:27 J -42057032.85 -42057032.69 -42057032.49 0.0132 0.0089
 Mars -119858-06-28 17:03 J -42056532.93 -42056532.79 -42056532.64 0.1746 0.1097
 Saturn -119856-01-13 15:08 J -42055968.06 -42055967.87 -42055967.69 0.0283 0.0176
 Jupiter -119854-02-06 03:08 J -42055214.49 -42055214.37 -42055214.24 0.0520 0.0439
 Jupiter -119849-07-19 05:17 J -42053224.41 -42053224.28 -42053224.16 0.0507 0.0424
 Jupiter -119837-07-23 16:20 J -42048837.06 -42048836.82 -42048836.58 0.0507 0.0006
 Neptune -119837-12-31 22:49 J -42048675.62 -42048675.55 -42048675.43 0.0089 0.0082
 Neptune -119835-01-03 09:08 J -42048308.33 -42048308.12 -42048307.87 0.0089 0.0047
 Neptune -119834-01-06 03:22 J -42047940.59 -42047940.36 -42047940.10 0.0089 0.0025
 Neptune -119833-01-08 10:20 J -42047573.33 -42047573.07 -42047572.81 0.0089 0.0009
 Neptune -119832-01-10 05:46 J -42047205.50 -42047205.26 -42047205.02 0.0089 0.0032
 Neptune -119831-01-12 10:34 J -42046838.20 -42046838.06 -42046837.86 0.0089 0.0066
 Pluto -119831-05-17 23:17 J -42046712.75 -42046712.53 -42046712.30 0.0081 0.0039
 Saturn -119827-01-08 02:53 J -42045381.58 -42045381.38 -42045381.18 0.0281 0.0176
 Jupiter -119825-07-28 06:44 J -42044449.36 -42044449.22 -42044449.07 0.0506 0.0390
 Uranus -119817-07-30 08:39 J -42041525.34 -42041525.14 -42041524.91 0.0146 0.0074
 Uranus -119816-08-04 21:08 J -42041154.84 -42041154.62 -42041154.37 0.0147 0.0064
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 Jupiter -119783-01-31 18:15 J -42029286.97 -42029286.74 -42029286.52 0.0519 0.0128
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 Mars -119085-06-26 20:53 J -41774195.80 -41774195.63 -41774195.45 0.1727 0.0485
 Saturn -119078-07-01 00:44 J -41771635.60 -41771635.47 -41771635.32 0.0285 0.0228
 Jupiter -119078-07-25 03:22 J -41771611.59 -41771611.36 -41771611.14 0.0507 0.0168
 Jupiter -119066-07-29 11:03 J -41767224.24 -41767224.04 -41767223.83 0.0506 0.0237
 Saturn -119061-01-13 07:27 J -41765595.43 -41765595.19 -41765594.93 0.0279 0.0057
 Uranus -119061-08-01 23:46 J -41765393.71 -41765393.51 -41765393.28 0.0146 0.0073
 Uranus -119060-08-07 12:29 J -41765023.21 -41765022.98 -41765022.76 0.0147 0.0070
 Saturn -119048-07-07 15:22 J -41760670.97 -41760670.86 -41760670.73 0.0282 0.0243
 Saturn -119032-01-07 06:01 J -41755008.26 -41755008.25 -41755008.22 0.0277 0.0276
 Jupiter -119024-01-31 19:27 J -41752061.88 -41752061.69 -41752061.49 0.0518 0.0282
 Uranus -119021-02-09 19:27 J -41750957.82 -41750957.69 -41750957.53 0.0133 0.0108
 Uranus -119020-02-13 02:53 J -41750588.64 -41750588.38 -41750588.12 0.0133 0.0002
 Uranus -119019-02-17 01:56 J -41750219.53 -41750219.42 -41750219.27 0.0132 0.0112
 Saturn -119019-07-02 16:34 J -41750084.04 -41750083.81 -41750083.58 0.0284 0.0111
 Neptune -119014-01-03 03:22 J -41748438.47 -41748438.36 -41748438.22 0.0089 0.0078
 Neptune -119013-01-05 22:49 J -41748070.77 -41748070.55 -41748070.32 0.0089 0.0045
 Neptune -119012-01-07 05:32 J -41747703.53 -41747703.27 -41747703.01 0.0089 0.0020
 Jupiter -119012-02-05 03:22 J -41747674.58 -41747674.36 -41747674.13 0.0519 0.0126
 Neptune -119011-01-10 01:56 J -41747335.68 -41747335.42 -41747335.16 0.0089 0.0014
 Neptune -119010-01-12 08:10 J -41746968.39 -41746968.16 -41746967.92 0.0089 0.0037
 Neptune -119009-01-15 01:56 J -41746600.56 -41746600.42 -41746600.23 0.0089 0.0071
 Mars -119006-06-30 04:34 J -41745338.44 -41745338.31 -41745338.19 0.1730 0.1301
 Saturn -119002-01-15 00:15 J -41744043.67 -41744043.49 -41744043.28 0.0279 0.0172

119TH MILLENNIUM BCE

This is a list of transits of Moon in the 119th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-118995-07-23 16:34 J		-41741297.00	-41741296.81	-41741296.61	0.0507	0.0277	
Jupiter	-118983-07-28 14:10 J		-41736909.14	-41736908.91	-41736908.69	0.0506	0.0128	
Uranus	-118977-08-02 10:20 J		-41734712.28	-41734712.07	-41734711.84	0.0146	0.0067	
Uranus	-118976-08-07 22:34 J		-41734341.77	-41734341.56	-41734341.35	0.0147	0.0085	
Saturn	-118973-01-10 00:01 J		-41733456.69	-41733456.50	-41733456.29	0.0278	0.0163	
Saturn	-118960-07-04 05:46 J		-41728532.51	-41728532.26	-41728532.01	0.0283	0.0010	
Mars	-118952-01-04 00:29 J		-41725791.59	-41725791.48	-41725791.37	0.1789	0.1501	
Jupiter	-118941-01-31 08:10 J		-41721747.31	-41721747.16	-41721747.01	0.0518	0.0399	
Uranus	-118937-02-10 05:03 J		-41720276.43	-41720276.29	-41720276.12	0.0133	0.0103	
Uranus	-118936-02-13 11:17 J		-41719907.29	-41719907.03	-41719906.77	0.0133	0.0006	
Uranus	-118935-02-17 12:15 J		-41719538.12	-41719537.99	-41719537.83	0.0132	0.0106	
Pluto	-118934-11-26 17:03 J		-41718890.96	-41718890.79	-41718890.61	0.0063	0.0047	
Pluto	-118933-11-27 01:41 J		-41718524.64	-41718524.43	-41718524.17	0.0063	0.0034	
Neptune	-118932-06-24 21:22 J		-41718314.72	-41718314.61	-41718314.48	0.0089	0.0078	
Neptune	-118931-06-27 10:34 J		-41717947.25	-41717947.06	-41717946.86	0.0089	0.0054	
Neptune	-118930-06-29 14:25 J		-41717580.13	-41717579.90	-41717579.63	0.0089	0.0024	
Jupiter	-118929-02-05 12:01 J		-41717359.23	-41717359.00	-41717358.77	0.0519	0.0033	
Neptune	-118929-07-01 07:13 J		-41717212.45	-41717212.20	-41717211.94	0.0089	0.0001	

Neptune -118928-07-03 10:05 J -41716845.31 -41716845.08 -41716844.84 0.0089 0.0032
 Neptune -118927-07-06 02:10 J -41716477.60 -41716477.41 -41716477.19 0.0089 0.0056
 Jupiter -118917-02-10 00:44 J -41712971.52 -41712971.47 -41712971.42 0.0520 0.0506
 Saturn -118914-01-11 11:46 J -41711905.26 -41711905.01 -41711904.75 0.0278 0.0058
 Jupiter -118912-07-22 22:49 J -41710981.70 -41710981.55 -41710981.40 0.0508 0.0378
 Saturn -118901-07-05 19:56 J -41706980.88 -41706980.67 -41706980.45 0.0283 0.0126
 Jupiter -118900-07-27 07:41 J -41706594.41 -41706594.18 -41706593.94 0.0507 0.0040
 Uranus -118893-08-02 22:05 J -41704030.80 -41704030.58 -41704030.35 0.0146 0.0062
 Uranus -118892-08-08 09:37 J -41703660.32 -41703660.10 -41703659.89 0.0147 0.0082
 Mars -118873-01-08 08:25 J -41696933.17 -41696933.15 -41696933.12 0.1785 0.1767
 Saturn -118872-06-30 22:05 J -41696393.72 -41696393.58 -41696393.43 0.0285 0.0227
 Jupiter -118858-01-30 17:32 J -41691431.83 -41691431.77 -41691431.70 0.0518 0.0495
 Saturn -118855-01-12 19:13 J -41690353.95 -41690353.70 -41690353.45 0.0279 0.0040
 Uranus -118853-02-10 16:34 J -41689594.95 -41689594.81 -41689594.63 0.0133 0.0101
 Uranus -118852-02-13 20:53 J -41689225.89 -41689225.63 -41689225.36 0.0132 0.0007
 Uranus -118851-02-17 23:03 J -41688856.63 -41688856.54 -41688856.42 0.0132 0.0118
 Neptune -118849-01-05 00:44 J -41688170.65 -41688170.47 -41688170.24 0.0089 0.0055
 Neptune -118848-01-06 21:51 J -41687802.83 -41687802.59 -41687802.34 0.0089 0.0034
 Neptune -118847-01-09 05:32 J -41687435.53 -41687435.27 -41687435.02 0.0089 0.0003
 Neptune -118846-01-11 23:17 J -41687067.78 -41687067.53 -41687067.26 0.0089 0.0025
 Jupiter -118846-02-04 05:46 J -41687044.50 -41687044.26 -41687044.03 0.0518 0.0073
 Neptune -118845-01-14 09:51 J -41686700.26 -41686700.09 -41686699.89 0.0089 0.0061
 Neptune -118844-01-15 22:20 J -41686332.65 -41686332.57 -41686332.45 0.0089 0.0082
 Pluto -118844-05-23 12:58 J -41686205.14 -41686204.96 -41686204.74 0.0081 0.0048
 Saturn -118842-07-08 12:29 J -41685429.10 -41685428.98 -41685428.84 0.0282 0.0235
 Jupiter -118834-02-09 00:44 J -41682656.61 -41682656.47 -41682656.33 0.0519 0.0405
 Jupiter -118829-07-21 18:58 J -41680666.80 -41680666.71 -41680666.61 0.0508 0.0458
 Jupiter -118817-07-26 12:58 J -41676279.19 -41676278.96 -41676278.73 0.0507 0.0055
 Saturn -118813-07-02 07:41 J -41674842.40 -41674842.18 -41674841.95 0.0285 0.0120
 Uranus -118809-08-03 07:41 J -41673349.40 -41673349.18 -41673348.94 0.0146 0.0056

Uranus -118808-08-08 18:29 J -41672978.93 -41672978.73 -41672978.53 0.0147 0.0095
 Jupiter -118805-07-31 00:15 J -41671891.62 -41671891.49 -41671891.34 0.0506 0.0415
 Mars -118801-06-28 03:22 J -41670463.54 -41670463.36 -41670463.18 0.1722 0.0034
 Saturn -118796-01-14 02:10 J -41668802.62 -41668802.41 -41668802.19 0.0279 0.0126
 Uranus -118769-02-11 03:51 J -41658913.50 -41658913.34 -41658913.16 0.0133 0.0093
 Uranus -118768-02-14 06:44 J -41658544.47 -41658544.22 -41658543.95 0.0132 0.0015
 Neptune -118768-06-24 13:13 J -41658413.96 -41658413.95 -41658413.88 0.0089 0.0088
 Saturn -118767-01-08 18:15 J -41658215.89 -41658215.74 -41658215.58 0.0277 0.0222
 Uranus -118767-02-18 10:34 J -41658175.15 -41658175.06 -41658174.92 0.0132 0.0115
 Neptune -118767-06-26 16:34 J -41658046.94 -41658046.81 -41658046.62 0.0089 0.0069
 Neptune -118766-06-29 09:22 J -41657679.34 -41657679.11 -41657678.86 0.0089 0.0032
 Neptune -118765-06-30 12:15 J -41657312.23 -41657311.99 -41657311.73 0.0089 0.0013
 Neptune -118764-07-03 03:51 J -41656944.59 -41656944.34 -41656944.08 0.0089 0.0024
 Jupiter -118763-02-03 11:32 J -41656729.23 -41656729.02 -41656728.80 0.0518 0.0161
 Neptune -118763-07-05 09:51 J -41656577.28 -41656577.09 -41656576.86 0.0089 0.0044
 Neptune -118762-07-07 21:22 J -41656209.71 -41656209.61 -41656209.47 0.0089 0.0079
 Saturn -118754-07-04 12:01 J -41653291.25 -41653291.00 -41653290.76 0.0285 0.0023
 Jupiter -118751-02-08 08:25 J -41652341.32 -41652341.15 -41652340.96 0.0520 0.0343
 Saturn -118737-01-16 09:08 J -41647251.28 -41647251.12 -41647250.95 0.0279 0.0201
 Jupiter -118734-07-26 13:41 J -41645964.16 -41645963.93 -41645963.69 0.0507 0.0128
 Uranus -118725-08-03 14:53 J -41642668.09 -41642667.88 -41642667.64 0.0146 0.0060
 Uranus -118724-08-09 00:15 J -41642297.69 -41642297.49 -41642297.27 0.0147 0.0088
 Mars -118722-07-01 03:51 J -41641606.40 -41641606.34 -41641606.28 0.1725 0.1607
 Jupiter -118722-07-31 06:29 J -41641576.38 -41641576.23 -41641576.06 0.0506 0.0360
 Saturn -118708-01-09 12:58 J -41636665.16 -41636664.96 -41636664.74 0.0277 0.0156
 Saturn -118695-07-05 14:53 J -41631740.10 -41631739.88 -41631739.64 0.0284 0.0060
 Pluto -118687-11-27 19:13 J -41628672.83 -41628672.70 -41628672.55 0.0063 0.0052
 Pluto -118686-11-29 06:58 J -41628306.48 -41628306.21 -41628305.94 0.0063 0.0016
 Neptune -118685-01-04 16:05 J -41628269.97 -41628269.83 -41628269.67 0.0089 0.0073
 Uranus -118685-02-11 14:39 J -41628232.05 -41628231.89 -41628231.70 0.0133 0.0093

Neptune -118684-01-06 00:29 J -41627902.70 -41627902.48 -41627902.24 0.0089 0.0040
 Uranus -118684-02-14 16:05 J -41627863.09 -41627862.83 -41627862.57 0.0132 0.0016
 Neptune -118683-01-08 17:03 J -41627535.04 -41627534.79 -41627534.51 0.0089 0.0015
 Uranus -118683-02-18 20:53 J -41627493.69 -41627493.63 -41627493.54 0.0132 0.0125
 Neptune -118682-01-11 05:32 J -41627167.50 -41627167.27 -41627167.01 0.0089 0.0019
 Neptune -118681-01-13 17:17 J -41626799.99 -41626799.78 -41626799.52 0.0089 0.0043
 Neptune -118680-01-15 10:20 J -41626432.18 -41626432.07 -41626431.92 0.0089 0.0076
 Jupiter -118680-02-02 21:08 J -41626413.84 -41626413.62 -41626413.40 0.0518 0.0218
 Saturn -118678-01-17 08:53 J -41625700.21 -41625700.13 -41625700.05 0.0279 0.0264
 Mars -118668-01-04 11:17 J -41622060.10 -41622060.03 -41622059.95 0.1795 0.1627
 Jupiter -118668-02-07 14:10 J -41622026.09 -41622025.91 -41622025.72 0.0519 0.0286
 Jupiter -118651-07-26 00:44 J -41615648.68 -41615648.47 -41615648.26 0.0507 0.0174
 Saturn -118649-01-11 09:51 J -41615114.31 -41615114.09 -41615113.86 0.0277 0.0096
 Uranus -118641-08-03 19:13 J -41611986.91 -41611986.70 -41611986.46 0.0146 0.0058
 Uranus -118640-08-09 03:08 J -41611616.56 -41611616.37 -41611616.15 0.0147 0.0091
 Jupiter -118639-07-30 17:46 J -41611260.95 -41611260.76 -41611260.56 0.0506 0.0298
 Saturn -118636-07-06 17:46 J -41610188.96 -41610188.76 -41610188.54 0.0284 0.0133
 Saturn -118607-06-30 20:10 J -41599602.76 -41599602.66 -41599602.55 0.0287 0.0257
 Neptune -118603-06-26 12:01 J -41598146.12 -41598146.00 -41598145.83 0.0089 0.0073
 Neptune -118602-06-28 14:53 J -41597779.07 -41597778.88 -41597778.66 0.0089 0.0050
 Uranus -118601-02-12 00:29 J -41597550.66 -41597550.48 -41597550.29 0.0133 0.0086
 Neptune -118601-06-30 05:46 J -41597411.51 -41597411.26 -41597411.00 0.0089 0.0018
 Uranus -118600-02-15 01:27 J -41597181.69 -41597181.44 -41597181.18 0.0132 0.0020
 Neptune -118600-07-02 11:46 J -41597044.25 -41597044.01 -41597043.76 0.0089 0.0006
 Uranus -118599-02-19 07:41 J -41596812.27 -41596812.18 -41596812.08 0.0132 0.0120
 Neptune -118599-07-04 22:34 J -41596676.79 -41596676.56 -41596676.32 0.0089 0.0038
 Neptune -118598-07-07 09:51 J -41596309.24 -41596309.09 -41596308.89 0.0089 0.0063
 Jupiter -118597-02-03 02:53 J -41596098.57 -41596098.38 -41596098.19 0.0518 0.0282
 Pluto -118597-05-24 15:22 J -41595986.94 -41595986.86 -41595986.74 0.0082 0.0074
 Pluto -118596-05-26 11:46 J -41595620.03 -41595620.01 -41595619.92 0.0081 0.0079

Mars -118596-06-26 02:53 J -41595589.43 -41595589.38 -41595589.32 0.1714 0.1632
 Saturn -118590-01-12 09:08 J -41593563.36 -41593563.12 -41593562.88 0.0277 0.0041
 Mars -118589-01-08 01:27 J -41593202.55 -41593202.44 -41593202.32 0.1791 0.1417
 Jupiter -118585-02-08 05:17 J -41591710.49 -41591710.28 -41591710.07 0.0519 0.0241
 Saturn -118577-07-07 15:08 J -41588638.05 -41588637.87 -41588637.69 0.0284 0.0194
 Jupiter -118568-07-25 14:25 J -41585333.11 -41585332.90 -41585332.68 0.0507 0.0216
 Uranus -118557-08-04 01:27 J -41581305.65 -41581305.44 -41581305.21 0.0146 0.0062
 Jupiter -118556-07-29 21:51 J -41580945.78 -41580945.59 -41580945.38 0.0506 0.0254
 Uranus -118556-08-09 08:39 J -41580935.34 -41580935.14 -41580934.91 0.0147 0.0084
 Saturn -118548-07-01 12:44 J -41578052.14 -41578051.97 -41578051.80 0.0287 0.0198
 Saturn -118531-01-13 06:29 J -41572012.48 -41572012.23 -41572011.98 0.0277 0.0015
 Neptune -118521-01-03 18:15 J -41568369.77 -41568369.74 -41568369.68 0.0089 0.0087
 Neptune -118520-01-05 12:15 J -41568002.20 -41568001.99 -41568001.76 0.0089 0.0051
 Neptune -118519-01-08 00:15 J -41567634.72 -41567634.49 -41567634.24 0.0089 0.0029
 Neptune -118518-01-10 12:44 J -41567267.24 -41567266.97 -41567266.70 0.0089 0.0007
 Saturn -118518-07-09 04:20 J -41567087.43 -41567087.32 -41567087.20 0.0285 0.0249
 Neptune -118517-01-13 04:48 J -41566899.54 -41566899.30 -41566899.06 0.0089 0.0030
 Uranus -118517-02-12 08:39 J -41566869.31 -41566869.14 -41566868.94 0.0133 0.0086
 Mars -118517-06-28 19:12 J -41566731.90 -41566731.70 -41566731.50 0.1717 0.0074
 Neptune -118516-01-14 12:58 J -41566532.13 -41566531.96 -41566531.77 0.0089 0.0065
 Uranus -118516-02-15 09:51 J -41566500.35 -41566500.09 -41566499.83 0.0132 0.0020
 Neptune -118515-01-17 07:56 J -41566164.18 -41566164.17 -41566164.10 0.0089 0.0088
 Uranus -118515-02-19 15:36 J -41566130.86 -41566130.85 -41566130.81 0.0132 0.0131
 Jupiter -118514-02-02 20:10 J -41565782.84 -41565782.66 -41565782.47 0.0519 0.0321
 Jupiter -118502-02-07 11:17 J -41561395.24 -41561395.03 -41561394.81 0.0520 0.0205
 Saturn -118489-07-02 08:39 J -41556501.34 -41556501.14 -41556500.94 0.0287 0.0143
 Jupiter -118485-07-24 18:29 J -41555017.93 -41555017.73 -41555017.53 0.0507 0.0257
 Jupiter -118473-07-29 18:44 J -41550629.92 -41550629.72 -41550629.50 0.0506 0.0217
 Uranus -118473-08-04 11:46 J -41550624.23 -41550624.01 -41550623.77 0.0146 0.0055
 Saturn -118472-01-13 22:34 J -41550461.80 -41550461.56 -41550461.31 0.0277 0.0070

Uranus -118472-08-09 18:58 J -41550253.90 -41550253.71 -41550253.51 0.0147 0.0096
 Neptune -118439-06-25 16:05 J -41538245.88 -41538245.83 -41538245.73 0.0088 0.0085
 Pluto -118439-11-30 08:10 J -41538088.44 -41538088.16 -41538087.88 0.0063 0.0004
 Neptune -118438-06-28 07:56 J -41537878.35 -41537878.17 -41537877.99 0.0089 0.0063
 Neptune -118437-06-29 13:12 J -41537511.17 -41537510.95 -41537510.71 0.0089 0.0029
 Neptune -118436-07-02 00:15 J -41537143.75 -41537143.49 -41537143.22 0.0089 0.0007
 Neptune -118435-07-04 10:20 J -41536776.29 -41536776.07 -41536775.82 0.0089 0.0028
 Neptune -118434-07-06 16:34 J -41536409.02 -41536408.81 -41536408.59 0.0089 0.0048
 Uranus -118433-02-12 20:10 J -41536187.84 -41536187.66 -41536187.45 0.0133 0.0080
 Neptune -118433-07-08 08:10 J -41536041.25 -41536041.16 -41536041.08 0.0089 0.0083
 Uranus -118432-02-15 20:24 J -41535818.90 -41535818.65 -41535818.39 0.0132 0.0028
 Jupiter -118431-02-02 01:27 J -41535467.61 -41535467.44 -41535467.27 0.0518 0.0359
 Uranus -118431-02-20 03:36 J -41535449.40 -41535449.35 -41535449.26 0.0132 0.0127
 Saturn -118430-07-04 04:48 J -41534950.53 -41534950.30 -41534950.07 0.0287 0.0084
 Jupiter -118419-02-07 02:24 J -41531079.62 -41531079.40 -41531079.18 0.0519 0.0151
 Saturn -118413-01-15 15:51 J -41528911.05 -41528910.84 -41528910.61 0.0277 0.0128
 Jupiter -118402-07-25 14:39 J -41524702.08 -41524701.89 -41524701.70 0.0507 0.0294
 Jupiter -118390-07-29 23:46 J -41520314.74 -41520314.51 -41520314.28 0.0506 0.0162
 Uranus -118389-08-05 01:41 J -41519942.66 -41519942.43 -41519942.20 0.0146 0.0048
 Uranus -118388-08-10 06:44 J -41519572.41 -41519572.22 -41519572.01 0.0147 0.0097
 Saturn -118384-01-09 10:48 J -41518324.19 -41518324.05 -41518323.88 0.0274 0.0212
 Saturn -118371-07-04 21:36 J -41513399.85 -41513399.60 -41513399.35 0.0287 0.0021
 Neptune -118356-01-04 17:17 J -41508101.92 -41508101.78 -41508101.62 0.0089 0.0070
 Neptune -118355-01-07 04:34 J -41507734.54 -41507734.31 -41507734.04 0.0089 0.0036
 Neptune -118354-01-09 23:03 J -41507366.79 -41507366.54 -41507366.28 0.0089 0.0012
 Saturn -118354-01-16 18:29 J -41507359.89 -41507359.73 -41507359.56 0.0277 0.0199
 Neptune -118353-01-12 06:29 J -41506999.48 -41506999.23 -41506998.96 0.0089 0.0023
 Neptune -118352-01-14 02:39 J -41506631.60 -41506631.39 -41506631.16 0.0089 0.0045
 Neptune -118351-01-16 08:39 J -41506264.23 -41506264.14 -41506264.02 0.0089 0.0081
 Uranus -118349-02-13 08:39 J -41505506.34 -41505506.14 -41505505.93 0.0133 0.0074

Pluto -118349-05-27 10:48 J -41505402.28 -41505402.05 -41505401.81 0.0081 0.0031
 Jupiter -118348-02-01 14:24 J -41505152.03 -41505151.90 -41505151.77 0.0518 0.0417
 Uranus -118348-02-16 07:41 J -41505137.42 -41505137.18 -41505136.92 0.0132 0.0031
 Jupiter -118336-02-06 04:34 J -41500764.55 -41500764.31 -41500764.07 0.0520 0.0077
 Saturn -118325-01-11 13:41 J -41496773.15 -41496772.93 -41496772.70 0.0274 0.0137
 Jupiter -118319-07-24 15:36 J -41494387.01 -41494386.85 -41494386.67 0.0507 0.0352
 Mars -118312-06-27 05:17 J -41491857.39 -41491857.28 -41491857.16 0.1710 0.1252
 Saturn -118312-07-05 16:34 J -41491849.05 -41491848.81 -41491848.57 0.0287 0.0051
 Jupiter -118307-07-29 10:05 J -41489999.30 -41489999.08 -41489998.86 0.0506 0.0093
 Mars -118305-01-08 14:10 J -41489471.03 -41489470.91 -41489470.79 0.1797 0.1386
 Uranus -118305-08-05 15:36 J -41489261.08 -41489260.85 -41489260.60 0.0146 0.0036
 Uranus -118304-08-10 19:41 J -41488890.85 -41488890.68 -41488890.51 0.0147 0.0112
 Jupiter -118295-08-03 01:12 J -41485611.51 -41485611.45 -41485611.39 0.0505 0.0488
 Neptune -118274-06-27 14:39 J -41477978.03 -41477977.89 -41477977.73 0.0088 0.0070
 Neptune -118273-06-28 23:32 J -41477610.73 -41477610.52 -41477610.29 0.0088 0.0047
 Neptune -118272-07-01 12:29 J -41477243.22 -41477242.98 -41477242.73 0.0089 0.0015
 Neptune -118271-07-03 17:03 J -41476876.05 -41476875.79 -41476875.54 0.0089 0.0009
 Neptune -118270-07-06 09:08 J -41476508.35 -41476508.12 -41476507.90 0.0089 0.0042
 Neptune -118269-07-07 11:32 J -41476141.17 -41476141.02 -41476140.83 0.0089 0.0066
 Saturn -118266-01-12 16:20 J -41475222.07 -41475221.82 -41475221.57 0.0275 0.0058
 Jupiter -118265-02-01 12:29 J -41474837.04 -41474836.98 -41474836.91 0.0518 0.0498
 Uranus -118265-02-13 23:17 J -41474824.74 -41474824.53 -41474824.30 0.0133 0.0064
 Uranus -118264-02-16 21:22 J -41474455.86 -41474455.61 -41474455.37 0.0132 0.0041
 Jupiter -118253-02-06 12:29 J -41470449.21 -41470448.98 -41470448.76 0.0519 0.0010
 Saturn -118253-07-06 22:20 J -41470297.77 -41470297.57 -41470297.35 0.0287 0.0135
 Jupiter -118241-02-11 08:10 J -41466061.28 -41466061.16 -41466061.04 0.0520 0.0445
 Jupiter -118236-07-24 02:10 J -41464071.53 -41464071.41 -41464071.28 0.0508 0.0424
 Mars -118233-06-29 06:58 J -41463000.38 -41463000.21 -41463000.03 0.1712 0.0348
 Saturn -118224-07-01 14:53 J -41459711.02 -41459710.88 -41459710.74 0.0288 0.0238
 Jupiter -118224-07-28 15:36 J -41459684.09 -41459683.85 -41459683.60 0.0506 0.0027

Uranus -118221-08-06 04:34 J -41458579.54 -41458579.31 -41458579.06 0.0146 0.0034
 Uranus -118220-08-11 05:32 J -41458209.42 -41458209.27 -41458209.10 0.0147 0.0115
 Jupiter -118212-08-02 04:48 J -41455296.41 -41455296.30 -41455296.17 0.0505 0.0425
 Saturn -118207-01-14 03:08 J -41453670.61 -41453670.37 -41453670.13 0.0275 0.0035
 Saturn -118194-07-09 12:29 J -41448746.12 -41448745.98 -41448745.84 0.0286 0.0232
 Neptune -118192-01-03 17:17 J -41448201.80 -41448201.78 -41448201.69 0.0089 0.0087
 Pluto -118192-12-01 03:22 J -41447870.57 -41447870.36 -41447870.10 0.0063 0.0035
 Neptune -118191-01-06 14:53 J -41447834.09 -41447833.88 -41447833.65 0.0089 0.0048
 Pluto -118191-12-02 17:46 J -41447503.95 -41447503.76 -41447503.53 0.0063 0.0037
 Neptune -118190-01-08 21:36 J -41447466.84 -41447466.60 -41447466.34 0.0089 0.0028
 Neptune -118189-01-11 17:46 J -41447099.02 -41447098.76 -41447098.48 0.0089 0.0011
 Neptune -118188-01-13 01:56 J -41446731.64 -41446731.42 -41446731.17 0.0089 0.0032
 Neptune -118187-01-15 18:29 J -41446363.87 -41446363.73 -41446363.53 0.0089 0.0069
 Uranus -118181-02-14 13:12 J -41444143.17 -41444142.95 -41444142.72 0.0133 0.0061
 Uranus -118180-02-17 10:20 J -41443774.30 -41443774.07 -41443773.83 0.0132 0.0048
 Jupiter -118170-02-05 10:48 J -41440134.29 -41440134.05 -41440133.81 0.0519 0.0092
 Saturn -118165-07-02 22:34 J -41438159.77 -41438159.56 -41438159.33 0.0288 0.0130
 Jupiter -118158-02-10 00:58 J -41435746.62 -41435746.46 -41435746.28 0.0520 0.0340
 Jupiter -118153-07-23 03:22 J -41433756.41 -41433756.36 -41433756.30 0.0508 0.0495
 Saturn -118148-01-15 23:17 J -41432118.73 -41432118.53 -41432118.32 0.0276 0.0140
 Jupiter -118141-07-27 14:53 J -41429369.10 -41429368.88 -41429368.65 0.0506 0.0068
 Uranus -118137-08-06 13:41 J -41427898.17 -41427897.93 -41427897.68 0.0146 0.0024
 Uranus -118136-08-11 12:15 J -41427528.13 -41427527.99 -41427527.82 0.0147 0.0116
 Jupiter -118129-08-01 06:29 J -41424981.41 -41424981.23 -41424981.04 0.0506 0.0324
 Saturn -118119-01-10 14:10 J -41421532.08 -41421531.91 -41421531.70 0.0274 0.0184
 Neptune -118110-06-26 22:05 J -41418077.66 -41418077.58 -41418077.45 0.0088 0.0081
 Neptune -118109-06-28 12:44 J -41417710.12 -41417709.97 -41417709.77 0.0088 0.0063
 Neptune -118108-06-30 15:36 J -41417343.08 -41417342.85 -41417342.60 0.0088 0.0025
 Neptune -118107-07-03 07:41 J -41416975.43 -41416975.18 -41416974.92 0.0088 0.0007
 Neptune -118106-07-05 11:32 J -41416608.25 -41416608.02 -41416607.78 0.0089 0.0031

Saturn -118106-07-05 15:08 J -41416608.11 -41416607.87 -41416607.64 0.0287 0.0015 *
 Neptune -118105-07-07 01:12 J -41416240.65 -41416240.45 -41416240.22 0.0089 0.0050
 Neptune -118104-07-09 09:36 J -41415873.13 -41415873.10 -41415873.04 0.0089 0.0087
 Pluto -118102-05-29 02:39 J -41415184.63 -41415184.39 -41415184.15 0.0081 0.0026
 Uranus -118097-02-15 02:53 J -41413461.61 -41413461.38 -41413461.13 0.0133 0.0047
 Uranus -118096-02-18 00:15 J -41413092.71 -41413092.49 -41413092.25 0.0132 0.0052
 Saturn -118089-01-18 18:15 J -41410566.83 -41410566.74 -41410566.61 0.0277 0.0249
 Jupiter -118087-02-04 05:17 J -41409819.48 -41409819.28 -41409819.07 0.0519 0.0208
 Jupiter -118075-02-09 06:15 J -41405431.44 -41405431.24 -41405431.02 0.0520 0.0245
 Saturn -118060-01-12 06:00 J -41399980.48 -41399980.25 -41399980.01 0.0275 0.0076
 Jupiter -118058-07-27 15:22 J -41399054.09 -41399053.86 -41399053.63 0.0507 0.0166
 Uranus -118053-08-06 21:08 J -41397216.86 -41397216.62 -41397216.37 0.0146 0.0035
 Uranus -118052-08-11 18:44 J -41396846.85 -41396846.72 -41396846.56 0.0147 0.0120
 Saturn -118047-07-07 13:41 J -41395056.14 -41395055.93 -41395055.71 0.0286 0.0108
 Jupiter -118046-08-01 02:39 J -41394666.59 -41394666.39 -41394666.18 0.0506 0.0237
 Mars -118028-06-28 09:08 J -41388125.28 -41388125.12 -41388124.97 0.1706 0.0994
 Neptune -118027-01-05 12:15 J -41387934.13 -41387933.99 -41387933.79 0.0089 0.0067
 Neptune -118026-01-08 07:27 J -41387566.43 -41387566.19 -41387565.94 0.0089 0.0037
 Neptune -118025-01-10 18:58 J -41387198.97 -41387198.71 -41387198.46 0.0089 0.0008
 Neptune -118024-01-12 07:56 J -41386831.43 -41386831.17 -41386830.90 0.0089 0.0021
 Neptune -118023-01-14 23:46 J -41386463.71 -41386463.51 -41386463.30 0.0089 0.0050
 Neptune -118022-01-17 08:10 J -41386096.25 -41386096.16 -41386096.02 0.0089 0.0080
 Mars -118021-01-08 01:12 J -41385740.65 -41385740.45 -41385740.25 0.1803 0.0691
 Saturn -118018-07-02 03:36 J -41384469.46 -41384469.35 -41384469.21 0.0289 0.0246
 Uranus -118013-02-15 13:56 J -41382780.15 -41382779.92 -41382779.67 0.0133 0.0050
 Uranus -118012-02-18 12:15 J -41382411.20 -41382410.99 -41382410.76 0.0132 0.0063
 Jupiter -118004-02-03 07:41 J -41379504.38 -41379504.18 -41379503.99 0.0518 0.0303
 Saturn -118001-01-15 01:27 J -41378428.68 -41378428.44 -41378428.20 0.0275 0.0032

118TH MILLENNIUM BCE

This is a list of transits of Moon in the 118th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-117992-02-07 21:22 J		-41375116.83	-41375116.61	-41375116.39	0.0519	0.0131	
Saturn	-117988-07-09 10:05 J		-41373504.22	-41373504.08	-41373503.93	0.0286	0.0228	
Jupiter	-117975-07-26 13:41 J		-41368739.12	-41368738.93	-41368738.73	0.0508	0.0252	
Uranus	-117969-08-07 05:46 J		-41366535.51	-41366535.26	-41366535.00	0.0146	0.0019	
Uranus	-117968-08-12 02:53 J		-41366165.52	-41366165.38	-41366165.21	0.0147	0.0116	
Jupiter	-117963-07-31 05:46 J		-41364351.49	-41364351.26	-41364351.03	0.0506	0.0130	
Saturn	-117959-07-03 20:24 J		-41362917.86	-41362917.65	-41362917.43	0.0288	0.0123	
Mars	-117949-06-30 16:48 J		-41359267.95	-41359267.80	-41359267.64	0.1708	0.0877	
Neptune	-117945-06-27 15:51 J		-41357809.97	-41357809.84	-41357809.67	0.0088	0.0072	
Neptune	-117944-06-30 06:44 J		-41357442.44	-41357442.22	-41357441.99	0.0088	0.0043	
Pluto	-117944-12-03 10:05 J		-41357286.34	-41357286.08	-41357285.82	0.0063	0.0001	
Neptune	-117943-07-02 11:46 J		-41357075.24	-41357075.01	-41357074.76	0.0089	0.0017	
Saturn	-117942-01-16 17:46 J		-41356876.97	-41356876.76	-41356876.54	0.0276	0.0133	
Neptune	-117942-07-04 22:20 J		-41356707.82	-41356707.57	-41356707.30	0.0089	0.0014	
Neptune	-117941-07-06 08:39 J		-41356340.34	-41356340.14	-41356339.91	0.0089	0.0041	
Neptune	-117940-07-08 14:24 J		-41355973.03	-41355972.90	-41355972.72	0.0089	0.0071	
Uranus	-117929-02-16 02:10 J		-41352098.66	-41352098.41	-41352098.15	0.0133	0.0034	
Uranus	-117928-02-19 01:41 J		-41351729.64	-41351729.43	-41351729.20	0.0132	0.0063	

Jupiter -117921-02-02 23:17 J -41349189.66 -41349189.53 -41349189.40 0.0517 0.0422
 Saturn -117913-01-11 03:22 J -41346290.52 -41346290.36 -41346290.17 0.0274 0.0195
 Jupiter -117909-02-08 01:41 J -41344801.66 -41344801.43 -41344801.19 0.0519 0.0023
 Saturn -117900-07-05 14:10 J -41341366.14 -41341365.91 -41341365.67 0.0288 0.0014
 Jupiter -117897-02-12 16:20 J -41340413.91 -41340413.82 -41340413.71 0.0520 0.0468
 Jupiter -117892-07-25 17:17 J -41338423.95 -41338423.78 -41338423.61 0.0507 0.0352
 Uranus -117885-08-07 19:27 J -41335853.95 -41335853.69 -41335853.44 0.0146 0.0024
 Uranus -117884-08-12 17:17 J -41335483.87 -41335483.78 -41335483.66 0.0147 0.0133
 Saturn -117883-01-18 00:15 J -41335325.63 -41335325.49 -41335325.33 0.0276 0.0223
 Jupiter -117880-07-29 23:46 J -41334036.74 -41334036.51 -41334036.28 0.0507 0.0040
 Jupiter -117868-08-03 22:48 J -41329648.63 -41329648.55 -41329648.46 0.0506 0.0471
 Neptune -117863-01-04 16:05 J -41328033.86 -41328033.83 -41328033.75 0.0089 0.0087
 Neptune -117862-01-07 08:24 J -41327666.34 -41327666.15 -41327665.92 0.0089 0.0050
 Neptune -117861-01-09 18:58 J -41327298.95 -41327298.71 -41327298.44 0.0089 0.0028
 Neptune -117860-01-11 14:39 J -41326931.14 -41326930.89 -41326930.63 0.0089 0.0010
 Neptune -117859-01-13 21:22 J -41326563.84 -41326563.61 -41326563.35 0.0089 0.0032
 Neptune -117858-01-16 17:32 J -41326195.90 -41326195.77 -41326195.58 0.0089 0.0070
 Saturn -117854-01-12 11:46 J -41324739.22 -41324739.01 -41324738.78 0.0274 0.0110
 Pluto -117854-05-31 22:34 J -41324599.76 -41324599.56 -41324599.33 0.0081 0.0040
 Uranus -117846-02-12 06:15 J -41321786.27 -41321786.24 -41321786.19 0.0133 0.0131
 Uranus -117845-02-16 14:10 J -41321417.15 -41321416.91 -41321416.65 0.0133 0.0037
 Uranus -117844-02-19 16:05 J -41321048.02 -41321047.83 -41321047.62 0.0133 0.0079
 Saturn -117841-07-07 03:08 J -41319814.60 -41319814.37 -41319814.14 0.0288 0.0085
 Jupiter -117838-02-02 10:20 J -41318874.14 -41318874.07 -41318874.00 0.0518 0.0494
 Jupiter -117826-02-07 00:44 J -41314486.70 -41314486.47 -41314486.23 0.0519 0.0056
 Jupiter -117814-02-12 03:36 J -41310098.49 -41310098.35 -41310098.19 0.0519 0.0391
 Jupiter -117809-07-24 16:05 J -41308108.95 -41308108.83 -41308108.71 0.0508 0.0427
 Uranus -117801-08-08 09:22 J -41305172.37 -41305172.11 -41305171.85 0.0146 0.0002
 Uranus -117800-08-13 08:10 J -41304802.23 -41304802.16 -41304802.04 0.0147 0.0135
 Jupiter -117797-07-29 14:53 J -41303721.11 -41303720.88 -41303720.65 0.0507 0.0026

Saturn -117795-01-13 17:46 J -41303188.00 -41303187.76 -41303187.51 0.0274 0.0038
 Jupiter -117785-08-02 19:41 J -41299333.83 -41299333.68 -41299333.53 0.0506 0.0387
 Saturn -117782-07-09 05:17 J -41298263.47 -41298263.28 -41298263.07 0.0287 0.0167
 Neptune -117781-06-27 03:51 J -41297909.42 -41297909.34 -41297909.21 0.0088 0.0081
 Neptune -117780-06-29 12:00 J -41297542.16 -41297542.00 -41297541.81 0.0088 0.0061
 Neptune -117779-07-01 19:41 J -41297174.92 -41297174.68 -41297174.42 0.0088 0.0025
 Neptune -117778-07-04 09:08 J -41296807.37 -41296807.12 -41296806.87 0.0089 0.0005
 Neptune -117777-07-05 12:15 J -41296440.23 -41296439.99 -41296439.75 0.0089 0.0031
 Neptune -117776-07-08 04:20 J -41296072.52 -41296072.32 -41296072.10 0.0089 0.0051
 Neptune -117775-07-10 06:58 J -41295705.22 -41295705.21 -41295705.15 0.0089 0.0088
 Uranus -117761-02-17 05:03 J -41290735.55 -41290735.29 -41290735.02 0.0133 0.0015
 Uranus -117760-02-20 08:39 J -41290366.32 -41290366.14 -41290365.93 0.0132 0.0080
 Saturn -117753-07-02 09:22 J -41287677.25 -41287677.11 -41287676.95 0.0290 0.0220
 Mars -117744-06-28 21:08 J -41284393.77 -41284393.62 -41284393.46 0.1701 0.0911
 Jupiter -117743-02-06 13:12 J -41284171.18 -41284170.95 -41284170.73 0.0518 0.0136
 Mars -117737-01-08 03:22 J -41282009.54 -41282009.36 -41282009.17 0.1809 0.0165
 Saturn -117736-01-14 15:08 J -41281637.12 -41281636.87 -41281636.61 0.0274 0.0028
 Jupiter -117731-02-11 03:36 J -41279783.53 -41279783.35 -41279783.16 0.0519 0.0315
 Jupiter -117726-07-25 06:58 J -41277793.26 -41277793.21 -41277793.15 0.0508 0.0493
 Saturn -117723-07-10 00:00 J -41276712.63 -41276712.50 -41276712.34 0.0287 0.0232
 Uranus -117718-08-04 18:58 J -41274860.80 -41274860.71 -41274860.58 0.0146 0.0130
 Uranus -117717-08-09 00:58 J -41274490.73 -41274490.46 -41274490.20 0.0146 0.0001
 Jupiter -117714-07-29 14:24 J -41273406.13 -41273405.90 -41273405.67 0.0507 0.0098
 Jupiter -117702-08-03 10:20 J -41269018.24 -41269018.07 -41269017.90 0.0506 0.0336
 Neptune -117698-01-06 04:34 J -41267766.48 -41267766.31 -41267766.12 0.0089 0.0065
 Neptune -117697-01-09 01:56 J -41267398.63 -41267398.42 -41267398.17 0.0089 0.0043
 Pluto -117697-12-03 22:48 J -41267068.67 -41267068.55 -41267068.35 0.0063 0.0050
 Neptune -117696-01-10 09:36 J -41267031.36 -41267031.10 -41267030.84 0.0089 0.0007
 Pluto -117696-12-05 07:56 J -41266702.41 -41266702.17 -41266701.90 0.0063 0.0024
 Neptune -117695-01-13 05:32 J -41266663.52 -41266663.27 -41266662.99 0.0089 0.0017

Neptune -117694-01-15 14:53 J -41266296.07 -41266295.88 -41266295.66 0.0089 0.0052
 Saturn -117694-07-04 11:03 J -41266126.24 -41266126.04 -41266125.84 0.0290 0.0154
 Neptune -117693-01-18 06:29 J -41265928.33 -41265928.23 -41265928.06 0.0089 0.0077
 Uranus -117678-02-13 15:51 J -41260422.95 -41260422.84 -41260422.68 0.0133 0.0111
 Saturn -117677-01-16 05:03 J -41260086.53 -41260086.29 -41260086.05 0.0274 0.0089
 Uranus -117677-02-17 19:56 J -41260053.92 -41260053.67 -41260053.41 0.0133 0.0017
 Uranus -117676-02-21 01:56 J -41259684.57 -41259684.42 -41259684.25 0.0132 0.0100
 Mars -117665-07-01 05:03 J -41255536.43 -41255536.29 -41255536.14 0.1704 0.1108
 Jupiter -117660-02-05 16:48 J -41253856.02 -41253855.80 -41253855.58 0.0519 0.0193
 Saturn -117648-01-09 21:08 J -41249499.69 -41249499.62 -41249499.51 0.0271 0.0253
 Jupiter -117648-02-10 20:53 J -41249467.81 -41249467.63 -41249467.43 0.0520 0.0273
 Saturn -117635-07-05 03:22 J -41244575.59 -41244575.36 -41244575.12 0.0290 0.0102
 Uranus -117634-08-05 09:08 J -41244179.20 -41244179.12 -41244179.02 0.0146 0.0134
 Uranus -117633-08-09 12:00 J -41243809.26 -41243809.00 -41243808.73 0.0146 0.0022
 Jupiter -117631-07-29 07:56 J -41243090.38 -41243090.17 -41243089.95 0.0507 0.0151
 Jupiter -117619-08-02 19:27 J -41238702.88 -41238702.69 -41238702.49 0.0506 0.0293
 Saturn -117618-01-16 22:48 J -41238535.74 -41238535.55 -41238535.33 0.0274 0.0147
 Neptune -117616-06-28 16:20 J -41237641.95 -41237641.82 -41237641.68 0.0088 0.0075
 Neptune -117615-07-01 06:58 J -41237274.41 -41237274.21 -41237273.97 0.0088 0.0041
 Neptune -117614-07-03 09:36 J -41236907.35 -41236907.10 -41236906.86 0.0089 0.0019
 Neptune -117613-07-05 00:58 J -41236539.70 -41236539.46 -41236539.20 0.0089 0.0017
 Neptune -117612-07-07 05:03 J -41236172.51 -41236172.29 -41236172.06 0.0089 0.0038
 Neptune -117611-07-09 18:00 J -41235804.89 -41235804.75 -41235804.59 0.0089 0.0072
 Pluto -117607-06-01 04:48 J -41234382.49 -41234382.30 -41234382.08 0.0081 0.0047
 Uranus -117594-02-14 09:22 J -41229741.23 -41229741.11 -41229740.97 0.0133 0.0113
 Uranus -117593-02-18 11:03 J -41229372.30 -41229372.04 -41229371.78 0.0133 0.0007
 Uranus -117592-02-21 18:15 J -41229002.88 -41229002.74 -41229002.55 0.0132 0.0100
 Saturn -117589-01-11 14:39 J -41227949.06 -41227948.89 -41227948.69 0.0271 0.0193
 Jupiter -117577-02-06 11:17 J -41223540.22 -41223540.03 -41223539.82 0.0518 0.0239
 Saturn -117576-07-05 15:36 J -41223025.09 -41223024.85 -41223024.61 0.0290 0.0055

Jupiter -117565-02-11 04:05 J -41219152.55 -41219152.33 -41219152.11 0.0519 0.0215
 Saturn -117559-01-17 23:03 J -41216984.69 -41216984.54 -41216984.37 0.0274 0.0209
 Uranus -117550-08-05 21:22 J -41213497.74 -41213497.61 -41213497.46 0.0146 0.0119
 Uranus -117549-08-09 22:34 J -41213127.83 -41213127.56 -41213127.30 0.0146 0.0013
 Jupiter -117548-07-28 16:05 J -41212775.05 -41212774.83 -41212774.61 0.0507 0.0198
 Mars -117539-06-28 04:20 J -41209518.38 -41209518.32 -41209518.26 0.1695 0.1603
 Jupiter -117536-08-02 09:36 J -41208387.29 -41208387.10 -41208386.90 0.0506 0.0254
 Neptune -117534-01-05 11:17 J -41207866.04 -41207866.03 -41207865.96 0.0089 0.0088
 Neptune -117533-01-07 20:53 J -41207498.81 -41207498.63 -41207498.41 0.0089 0.0055
 Neptune -117532-01-09 14:10 J -41207131.15 -41207130.91 -41207130.63 0.0089 0.0028
 Neptune -117531-01-12 03:36 J -41206763.60 -41206763.35 -41206763.10 0.0089 0.0006
 Saturn -117530-01-12 05:17 J -41206398.50 -41206398.28 -41206398.05 0.0271 0.0129
 Neptune -117530-01-14 15:36 J -41206396.09 -41206395.85 -41206395.58 0.0089 0.0032
 Neptune -117529-01-17 09:22 J -41206028.27 -41206028.11 -41206027.93 0.0089 0.0065
 Saturn -117517-07-06 09:22 J -41201474.34 -41201474.11 -41201473.88 0.0290 0.0009
 Uranus -117510-02-15 00:58 J -41199059.62 -41199059.46 -41199059.26 0.0133 0.0093
 Uranus -117509-02-19 01:41 J -41198690.69 -41198690.43 -41198690.17 0.0133 0.0002
 Uranus -117508-02-22 10:34 J -41198321.14 -41198321.06 -41198320.93 0.0132 0.0121
 Saturn -117500-01-18 20:24 J -41195433.68 -41195433.65 -41195433.61 0.0274 0.0270
 Jupiter -117494-02-05 16:20 J -41193225.02 -41193224.82 -41193224.62 0.0518 0.0299
 Jupiter -117482-02-10 12:58 J -41188837.17 -41188836.96 -41188836.74 0.0520 0.0159
 Saturn -117471-01-13 04:48 J -41184847.53 -41184847.30 -41184847.06 0.0271 0.0063
 Uranus -117466-08-06 06:15 J -41182816.36 -41182816.24 -41182816.11 0.0146 0.0125
 Jupiter -117465-07-28 05:46 J -41182459.45 -41182459.26 -41182459.06 0.0507 0.0249
 Uranus -117465-08-10 04:34 J -41182446.56 -41182446.31 -41182446.05 0.0146 0.0028
 Mars -117460-06-30 09:08 J -41180661.29 -41180661.12 -41180660.95 0.1697 0.0473
 Saturn -117458-07-08 09:08 J -41179923.35 -41179923.12 -41179922.89 0.0290 0.0044
 Mars -117453-01-07 23:46 J -41178278.73 -41178278.51 -41178278.29 0.1815 0.0393
 Jupiter -117453-08-01 19:56 J -41178071.89 -41178071.67 -41178071.45 0.0506 0.0202
 Neptune -117452-06-28 05:46 J -41177741.32 -41177741.26 -41177741.17 0.0088 0.0084

Neptune -117451-06-30 08:10 J -41177374.33 -41177374.16 -41177373.97 0.0088 0.0060
 Neptune -117450-07-02 22:05 J -41177006.82 -41177006.58 -41177006.32 0.0089 0.0028
 Neptune -117449-07-04 03:51 J -41176639.58 -41176639.34 -41176639.09 0.0089 0.0004
 Pluto -117449-12-05 16:34 J -41176485.04 -41176484.81 -41176484.56 0.0063 0.0029
 Neptune -117448-07-06 12:58 J -41176272.19 -41176271.96 -41176271.70 0.0089 0.0028
 Pluto -117448-12-07 12:58 J -41176118.15 -41176117.96 -41176117.72 0.0063 0.0039
 Neptune -117447-07-09 00:15 J -41175904.67 -41175904.49 -41175904.27 0.0089 0.0053
 Neptune -117446-07-11 05:03 J -41175537.34 -41175537.29 -41175537.18 0.0089 0.0085
 Uranus -117426-02-15 14:53 J -41168378.05 -41168377.88 -41168377.71 0.0133 0.0097
 Uranus -117425-02-19 13:56 J -41168009.17 -41168008.92 -41168008.67 0.0133 0.0023
 Uranus -117424-02-23 00:15 J -41167639.59 -41167639.49 -41167639.34 0.0132 0.0115
 Saturn -117412-01-14 12:00 J -41163296.25 -41163296.00 -41163295.76 0.0272 0.0012
 Jupiter -117411-02-05 00:58 J -41162909.61 -41162909.46 -41162909.30 0.0519 0.0370
 Jupiter -117399-02-10 01:27 J -41158521.68 -41158521.44 -41158521.20 0.0519 0.0110
 Saturn -117399-07-09 06:44 J -41158372.45 -41158372.22 -41158371.99 0.0290 0.0105
 Jupiter -117382-07-28 14:53 J -41152144.07 -41152143.88 -41152143.69 0.0507 0.0307
 Uranus -117382-08-06 20:24 J -41152134.79 -41152134.65 -41152134.47 0.0146 0.0111
 Mars -117381-07-02 07:41 J -41151804.27 -41151804.18 -41151804.09 0.1699 0.1445
 Uranus -117381-08-10 17:46 J -41151765.01 -41151764.76 -41151764.50 0.0146 0.0023
 Saturn -117370-07-03 09:36 J -41147786.15 -41147786.10 -41147786.03 0.0292 0.0281
 Jupiter -117370-08-02 03:36 J -41147756.56 -41147756.35 -41147756.13 0.0506 0.0154
 Neptune -117369-01-06 22:05 J -41147598.72 -41147598.58 -41147598.37 0.0089 0.0068
 Neptune -117368-01-08 16:05 J -41147231.04 -41147230.83 -41147230.61 0.0089 0.0047
 Neptune -117367-01-11 00:58 J -41146863.72 -41146863.46 -41146863.18 0.0089 0.0009
 Neptune -117366-01-13 21:22 J -41146495.86 -41146495.61 -41146495.35 0.0089 0.0013
 Neptune -117365-01-16 03:51 J -41146128.53 -41146128.34 -41146128.10 0.0089 0.0052
 Neptune -117364-01-18 00:44 J -41145760.61 -41145760.47 -41145760.30 0.0089 0.0072
 Pluto -117359-06-03 04:20 J -41143798.55 -41143798.32 -41143798.07 0.0081 0.0012
 Saturn -117353-01-16 18:58 J -41141744.94 -41141744.71 -41141744.47 0.0272 0.0094
 Uranus -117342-02-16 04:34 J -41137696.51 -41137696.31 -41137696.10 0.0133 0.0078

Uranus -117341-02-20 03:36 J -41137327.61 -41137327.35 -41137327.10 0.0133 0.0017
 Saturn -117340-07-10 03:36 J -41136821.54 -41136821.35 -41136821.15 0.0290 0.0177
 Jupiter -117328-02-04 06:15 J -41132594.35 -41132594.24 -41132594.11 0.0518 0.0445
 Saturn -117324-01-10 06:15 J -41131158.36 -41131158.24 -41131158.09 0.0271 0.0225
 Jupiter -117316-02-08 23:03 J -41128206.77 -41128206.54 -41128206.31 0.0519 0.0024
 Saturn -117311-07-04 19:27 J -41126234.86 -41126234.69 -41126234.51 0.0291 0.0198
 Jupiter -117299-07-27 21:22 J -41121828.76 -41121828.61 -41121828.45 0.0507 0.0367
 Uranus -117298-08-07 11:32 J -41121453.19 -41121453.02 -41121452.84 0.0146 0.0104
 Uranus -117297-08-11 07:27 J -41121083.43 -41121083.19 -41121082.94 0.0146 0.0045
 Saturn -117294-01-18 00:15 J -41120193.67 -41120193.49 -41120193.29 0.0272 0.0182
 Neptune -117287-06-29 17:46 J -41117473.87 -41117473.76 -41117473.63 0.0088 0.0078
 Jupiter -117287-08-01 12:15 J -41117441.22 -41117440.99 -41117440.75 0.0506 0.0083
 Neptune -117286-07-02 02:10 J -41117106.61 -41117106.41 -41117106.18 0.0088 0.0042
 Neptune -117285-07-03 09:08 J -41116739.37 -41116739.12 -41116738.86 0.0089 0.0022
 Neptune -117284-07-05 22:34 J -41116371.80 -41116371.56 -41116371.31 0.0089 0.0016
 Neptune -117283-07-08 01:12 J -41116004.67 -41116004.45 -41116004.20 0.0089 0.0035
 Neptune -117282-07-10 17:17 J -41115636.91 -41115636.78 -41115636.62 0.0089 0.0072
 Saturn -117281-07-11 10:48 J -41115270.14 -41115270.05 -41115269.96 0.0289 0.0268
 Saturn -117265-01-12 21:36 J -41109606.81 -41109606.60 -41109606.39 0.0271 0.0133
 Uranus -117258-02-16 18:58 J -41107014.90 -41107014.71 -41107014.49 0.0133 0.0079
 Uranus -117257-02-20 18:00 J -41106645.99 -41106645.75 -41106645.51 0.0133 0.0040
 Uranus -117256-02-24 05:46 J -41106276.29 -41106276.26 -41106276.20 0.0133 0.0131
 Mars -117255-06-28 16:05 J -41105786.94 -41105786.83 -41105786.72 0.1690 0.1359
 Saturn -117252-07-06 05:46 J -41104683.49 -41104683.26 -41104683.03 0.0291 0.0100
 Jupiter -117233-02-09 02:53 J -41097891.62 -41097891.38 -41097891.15 0.0519 0.0074
 Jupiter -117221-02-13 18:00 J -41093503.87 -41093503.75 -41093503.64 0.0520 0.0448
 Jupiter -117216-07-27 00:29 J -41091513.57 -41091513.48 -41091513.37 0.0507 0.0461
 Uranus -117214-08-08 05:32 J -41090771.46 -41090771.27 -41090771.05 0.0146 0.0086
 Uranus -117213-08-12 01:27 J -41090401.67 -41090401.44 -41090401.19 0.0146 0.0049
 Saturn -117206-01-14 14:24 J -41088055.14 -41088054.90 -41088054.65 0.0272 0.0034

Neptune -117205-01-06 02:24 J -41087698.41 -41087698.40 -41087698.34 0.0089 0.0088
 Neptune -117204-01-07 10:05 J -41087331.25 -41087331.08 -41087330.85 0.0089 0.0060
 Jupiter -117204-07-31 06:58 J -41087126.43 -41087126.21 -41087125.98 0.0507 0.0011
 Neptune -117203-01-10 08:10 J -41086963.40 -41086963.16 -41086962.90 0.0089 0.0028
 Neptune -117202-01-12 15:36 J -41086596.10 -41086595.85 -41086595.58 0.0089 0.0002
 Neptune -117201-01-15 11:32 J -41086228.26 -41086228.02 -41086227.75 0.0089 0.0031
 Pluto -117201-12-07 19:56 J -41085900.91 -41085900.67 -41085900.40 0.0063 0.0020
 Neptune -117200-01-16 21:22 J -41085860.79 -41085860.61 -41085860.42 0.0089 0.0060
 Pluto -117200-12-09 03:22 J -41085534.47 -41085534.36 -41085534.20 0.0064 0.0055
 Saturn -117193-07-07 16:34 J -41083132.06 -41083131.81 -41083131.57 0.0290 0.0013
 Jupiter -117192-08-05 04:48 J -41082738.37 -41082738.30 -41082738.21 0.0506 0.0472
 Mars -117176-07-01 02:10 J -41076929.60 -41076929.41 -41076929.21 0.1693 0.0182
 Uranus -117174-02-17 11:17 J -41076333.25 -41076333.03 -41076332.78 0.0133 0.0058
 Uranus -117173-02-21 10:48 J -41075964.28 -41075964.05 -41075963.80 0.0133 0.0038
 Mars -117169-01-07 04:48 J -41074548.43 -41074548.30 -41074548.16 0.1821 0.1257
 Jupiter -117150-02-07 18:58 J -41067576.93 -41067576.71 -41067576.49 0.0518 0.0174
 Saturn -117147-01-16 04:05 J -41066503.57 -41066503.33 -41066503.07 0.0272 0.0071
 Jupiter -117138-02-12 21:36 J -41063188.77 -41063188.60 -41063188.42 0.0519 0.0340
 Saturn -117134-07-10 07:41 J -41061580.39 -41061580.18 -41061579.96 0.0289 0.0129
 Uranus -117130-08-08 20:53 J -41060089.84 -41060089.63 -41060089.41 0.0146 0.0078
 Uranus -117129-08-12 16:34 J -41059720.02 -41059719.81 -41059719.58 0.0146 0.0071
 Neptune -117122-07-01 04:34 J -41057206.47 -41057206.31 -41057206.10 0.0089 0.0061
 Neptune -117121-07-02 19:27 J -41056838.90 -41056838.69 -41056838.44 0.0089 0.0034
 Jupiter -117121-07-30 16:48 J -41056811.02 -41056810.80 -41056810.57 0.0507 0.0079
 Neptune -117120-07-04 22:05 J -41056471.83 -41056471.58 -41056471.33 0.0089 0.0005
 Neptune -117119-07-07 13:41 J -41056104.16 -41056103.93 -41056103.67 0.0089 0.0024
 Saturn -117118-01-10 23:03 J -41055916.65 -41055916.54 -41055916.41 0.0270 0.0236
 Neptune -117118-07-09 16:48 J -41055736.97 -41055736.80 -41055736.57 0.0089 0.0053
 Neptune -117117-07-11 06:44 J -41055369.31 -41055369.22 -41055369.10 0.0089 0.0081
 Pluto -117111-06-05 08:10 J -41053214.41 -41053214.16 -41053213.90 0.0081 0.0010

Jupiter -117109-08-03 19:27 J -41052423.85 -41052423.69 -41052423.53 0.0506 0.0364
 Saturn -117105-07-04 06:15 J -41050993.38 -41050993.24 -41050993.08 0.0292 0.0226
 Uranus -117090-02-18 02:53 J -41045651.60 -41045651.38 -41045651.13 0.0133 0.0056
 Uranus -117089-02-22 02:24 J -41045282.61 -41045282.40 -41045282.16 0.0133 0.0061
 Saturn -117088-01-17 14:39 J -41044952.08 -41044951.89 -41044951.69 0.0273 0.0174
 Saturn -117075-07-12 04:48 J -41040028.41 -41040028.30 -41040028.18 0.0289 0.0252
 Jupiter -117067-02-06 19:27 J -41037261.88 -41037261.69 -41037261.50 0.0518 0.0295
 Saturn -117059-01-12 18:00 J -41034364.96 -41034364.75 -41034364.53 0.0271 0.0133
 Jupiter -117055-02-11 09:08 J -41032874.33 -41032874.12 -41032873.90 0.0519 0.0218
 Saturn -117046-07-06 23:46 J -41029441.74 -41029441.51 -41029441.28 0.0291 0.0101
 Uranus -117046-08-09 11:17 J -41029408.25 -41029408.03 -41029407.79 0.0146 0.0065
 Uranus -117045-08-13 06:58 J -41029038.42 -41029038.21 -41029037.97 0.0146 0.0070
 Neptune -117040-01-06 18:00 J -41027430.88 -41027430.75 -41027430.56 0.0089 0.0071
 Neptune -117039-01-09 02:53 J -41027063.58 -41027063.38 -41027063.15 0.0089 0.0050
 Neptune -117038-01-11 21:22 J -41026695.88 -41026695.61 -41026695.34 0.0089 0.0011
 Jupiter -117038-07-30 05:46 J -41026496.47 -41026496.26 -41026496.04 0.0507 0.0189
 Neptune -117037-01-14 09:22 J -41026328.36 -41026328.11 -41026327.85 0.0089 0.0011
 Neptune -117036-01-15 22:34 J -41025960.77 -41025960.56 -41025960.31 0.0089 0.0049
 Neptune -117035-01-18 15:36 J -41025592.99 -41025592.85 -41025592.68 0.0089 0.0070
 Jupiter -117026-08-03 23:46 J -41022108.70 -41022108.51 -41022108.32 0.0506 0.0267
 Uranus -117006-02-18 18:58 J -41014969.95 -41014969.71 -41014969.45 0.0133 0.0037
 Uranus -117005-02-22 19:27 J -41014600.91 -41014600.69 -41014600.46 0.0133 0.0058

117TH MILLENNIUM BCE

This is a list of transits of Moon in the 117th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-117000-01-14 05:46 J	-41012813.51	-41012813.26	-41012813.00	0.0271	0.0037		
Saturn	-116987-07-08 12:44 J	-41007890.21	-41007889.97	-41007889.72	0.0291	0.0015		
Jupiter	-116984-02-05 13:41 J	-41006947.09	-41006946.93	-41006946.77	0.0518	0.0388		
Jupiter	-116972-02-10 17:32 J	-41002558.99	-41002558.77	-41002558.55	0.0519	0.0135		
Mars	-116971-06-30 00:58 J	-41002054.60	-41002054.46	-41002054.32	0.1687	0.0934		
Uranus	-116962-08-09 19:41 J	-40998726.90	-40998726.68	-40998726.43	0.0145	0.0063		
Uranus	-116961-08-13 16:05 J	-40998357.02	-40998356.83	-40998356.60	0.0146	0.0083		
Neptune	-116958-06-30 17:03 J	-40997305.86	-40997305.79	-40997305.67	0.0089	0.0082		
Neptune	-116957-07-01 19:41 J	-40996938.90	-40996938.68	-40996938.47	0.0089	0.0044		
Neptune	-116956-07-04 10:05 J	-40996571.32	-40996571.08	-40996570.82	0.0089	0.0025		
Neptune	-116955-07-06 14:39 J	-40996204.12	-40996203.89	-40996203.64	0.0089	0.0013		
Jupiter	-116955-07-29 14:10 J	-40996181.10	-40996180.91	-40996180.71	0.0508	0.0268		
Neptune	-116954-07-09 01:27 J	-40995836.66	-40995836.44	-40995836.18	0.0089	0.0033		
Neptune	-116953-07-10 11:17 J	-40995469.15	-40995469.03	-40995468.85	0.0089	0.0070		
Pluto	-116953-12-09 05:32 J	-40995317.50	-40995317.27	-40995317.00	0.0063	0.0022		
Pluto	-116952-12-10 22:20 J	-40994950.63	-40994950.57	-40994950.44	0.0064	0.0060		
Jupiter	-116943-08-02 23:46 J	-40991793.73	-40991793.51	-40991793.28	0.0507	0.0187		
Saturn	-116941-01-16 09:08 J	-40991262.37	-40991262.12	-40991261.86	0.0272	0.0051		
Saturn	-116928-07-10 00:58 J	-40986338.68	-40986338.46	-40986338.25	0.0290	0.0121		
Uranus	-116922-02-19 06:58 J	-40984288.45	-40984288.21	-40984287.95	0.0134	0.0038		
Uranus	-116921-02-23 08:39 J	-40983919.32	-40983919.14	-40983918.92	0.0133	0.0078		
Saturn	-116912-01-10 04:20 J	-40980675.34	-40980675.32	-40980675.28	0.0269	0.0267		
Jupiter	-116901-02-05 23:17 J	-40976631.62	-40976631.53	-40976631.43	0.0517	0.0468		
Saturn	-116899-07-04 15:22 J	-40975751.96	-40975751.86	-40975751.74	0.0293	0.0258		
Mars	-116892-07-01 22:34 J	-40973197.74	-40973197.56	-40973197.38	0.1689	0.0103		

Jupiter -116889-02-10 13:41 J -40972244.18 -40972243.93 -40972243.69 0.0518 0.0035
 Mars -116885-01-07 12:15 J -40970817.12 -40970816.99 -40970816.86 0.1826 0.1402
 Saturn -116882-01-17 11:46 J -40969711.23 -40969711.01 -40969710.79 0.0272 0.0129
 Uranus -116878-08-10 05:32 J -40968045.50 -40968045.27 -40968045.02 0.0145 0.0059
 Jupiter -116877-02-15 11:46 J -40967856.07 -40967856.01 -40967855.95 0.0520 0.0497
 Uranus -116877-08-14 02:53 J -40967675.58 -40967675.38 -40967675.16 0.0146 0.0078
 Neptune -116876-01-05 15:51 J -40967530.84 -40967530.84 -40967530.80 0.0089 0.0089
 Neptune -116875-01-08 07:41 J -40967163.36 -40967163.18 -40967162.97 0.0089 0.0063
 Neptune -116874-01-10 23:46 J -40966795.75 -40966795.51 -40966795.26 0.0089 0.0028
 Neptune -116873-01-13 09:51 J -40966428.36 -40966428.09 -40966427.82 0.0089 0.0004
 Neptune -116872-01-15 05:17 J -40966060.52 -40966060.28 -40966060.03 0.0089 0.0031
 Jupiter -116872-07-28 12:58 J -40965866.13 -40965865.96 -40965865.78 0.0508 0.0349
 Neptune -116871-01-17 12:44 J -40965693.18 -40965692.97 -40965692.77 0.0089 0.0056
 Saturn -116869-07-11 13:12 J -40964787.10 -40964786.95 -40964786.79 0.0290 0.0214
 Pluto -116863-06-07 05:03 J -40962630.52 -40962630.29 -40962630.07 0.0081 0.0027
 Jupiter -116860-08-02 05:32 J -40961478.49 -40961478.27 -40961478.05 0.0506 0.0104
 Saturn -116853-01-12 09:07 J -40959124.29 -40959124.12 -40959123.94 0.0269 0.0192
 Jupiter -116848-08-06 18:00 J -40957090.78 -40957090.75 -40957090.71 0.0506 0.0499
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 Uranus -116838-02-19 18:29 J -40953606.98 -40953606.73 -40953606.47 0.0134 0.0025
 Uranus -116837-02-23 22:05 J -40953237.77 -40953237.58 -40953237.36 0.0133 0.0072
 Saturn -116823-01-18 15:51 J -40948160.00 -40948159.84 -40948159.66 0.0272 0.0195
 Jupiter -116806-02-09 23:03 J -40941928.76 -40941928.54 -40941928.31 0.0519 0.0030
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 Uranus -116794-08-10 16:19 J -40937364.06 -40937363.82 -40937363.57 0.0145 0.0048
 Neptune -116793-07-01 06:29 J -40937038.39 -40937038.23 -40937038.02 0.0089 0.0062
 Uranus -116793-08-14 15:51 J -40936994.02 -40936993.84 -40936993.64 0.0146 0.0091
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Neptune -116790-07-08 10:05 J -40935936.32 -40935936.08 -40935935.84 0.0089 0.0019
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 Jupiter -116789-07-28 00:29 J -40935550.60 -40935550.48 -40935550.34 0.0508 0.0409
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 Pluto -116705-12-10 21:07 J -40904733.87 -40904733.62 -40904733.35 0.0063 0.0022
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 Mars -116687-07-01 04:19 J -40898322.50 -40898322.32 -40898322.14 0.1684 0.0558
 Jupiter -116682-08-06 18:43 J -40896459.87 -40896459.72 -40896459.57 0.0505 0.0391
 Saturn -116676-01-14 20:39 J -40894471.88 -40894471.64 -40894471.40 0.0269 0.0022

Uranus -116671-02-16 11:46 J -40892613.11 -40892613.01 -40892612.89 0.0134 0.0120
 Uranus -116670-02-20 16:05 J -40892244.09 -40892243.83 -40892243.57 0.0134 0.0016
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 Saturn -116663-07-09 06:29 J -40889548.47 -40889548.23 -40889547.98 0.0293 0.0019
 Jupiter -116640-02-08 17:31 J -40881297.99 -40881297.77 -40881297.55 0.0518 0.0134
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 Neptune -116624-07-11 07:27 J -40875301.35 -40875301.19 -40875301.02 0.0089 0.0066
 Jupiter -116623-07-28 01:27 J -40874919.50 -40874919.44 -40874919.39 0.0508 0.0490
 Saturn -116617-01-16 19:12 J -40872920.95 -40872920.70 -40872920.45 0.0269 0.0028
 Pluto -116615-06-08 14:53 J -40872047.11 -40872046.88 -40872046.62 0.0081 0.0022
 Jupiter -116611-08-01 16:05 J -40870532.07 -40870531.83 -40870531.59 0.0507 0.0053
 Mars -116608-07-03 11:31 J -40869465.19 -40869465.02 -40869464.85 0.1686 0.0722
 Saturn -116604-07-09 17:17 J -40867998.01 -40867997.78 -40867997.54 0.0293 0.0076
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 Uranus -116586-02-21 04:19 J -40861562.58 -40861562.32 -40861562.06 0.0134 0.0006
 Uranus -116585-02-25 15:51 J -40861193.00 -40861192.84 -40861192.66 0.0133 0.0099
 Saturn -116558-01-17 12:29 J -40851370.22 -40851369.98 -40851369.72 0.0269 0.0078
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 Neptune -116546-01-09 06:15 J -40846995.40 -40846995.24 -40846995.04 0.0089 0.0066
 Neptune -116545-01-11 16:34 J -40846628.04 -40846627.81 -40846627.55 0.0089 0.0027
 Jupiter -116545-02-14 01:12 J -40846594.65 -40846594.45 -40846594.25 0.0520 0.0271

Saturn -116545-07-10 09:07 J -40846447.33 -40846447.12 -40846446.91 0.0293 0.0132
 Neptune -116544-01-13 09:36 J -40846260.37 -40846260.10 -40846259.82 0.0089 0.0006
 Neptune -116543-01-15 23:46 J -40845892.72 -40845892.51 -40845892.25 0.0089 0.0034
 Neptune -116542-01-18 11:46 J -40845525.21 -40845525.01 -40845524.78 0.0089 0.0055
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 Jupiter -116528-07-31 23:03 J -40840216.76 -40840216.54 -40840216.32 0.0507 0.0104
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 Saturn -116516-07-04 18:00 J -40835860.84 -40835860.75 -40835860.64 0.0295 0.0267
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 Uranus -116502-02-21 17:31 J -40830881.03 -40830880.77 -40830880.51 0.0134 0.0004
 Uranus -116501-02-26 06:15 J -40830511.38 -40830511.24 -40830511.08 0.0133 0.0105
 Saturn -116499-01-18 07:55 J -40829819.38 -40829819.17 -40829818.95 0.0269 0.0133
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 Jupiter -116474-02-08 09:36 J -40820667.30 -40820667.10 -40820666.89 0.0518 0.0248
 Saturn -116470-01-13 08:24 J -40819232.35 -40819232.15 -40819231.96 0.0268 0.0170
 Neptune -116464-07-02 10:05 J -40816870.26 -40816870.08 -40816869.89 0.0089 0.0060
 Neptune -116463-07-04 12:15 J -40816503.20 -40816502.99 -40816502.76 0.0089 0.0041
 Jupiter -116462-02-13 15:07 J -40816279.09 -40816278.87 -40816278.65 0.0519 0.0202
 Neptune -116462-07-07 01:27 J -40816135.70 -40816135.44 -40816135.18 0.0089 0.0004
 Neptune -116461-07-08 07:41 J -40815768.42 -40815768.18 -40815767.94 0.0089 0.0017
 Neptune -116460-07-10 16:19 J -40815401.01 -40815400.82 -40815400.60 0.0089 0.0054
 Neptune -116459-07-13 04:19 J -40815033.44 -40815033.32 -40815033.17 0.0089 0.0074
 Uranus -116458-08-12 22:05 J -40814637.83 -40814637.58 -40814637.32 0.0145 0.0005
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 Pluto -116457-12-12 09:22 J -40814150.30 -40814150.11 -40814149.86 0.0063 0.0035
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Jupiter -116445-07-31 17:46 J -40809900.98 -40809900.76 -40809900.53 0.0507 0.0148
 Saturn -116440-01-19 13:55 J -40808268.07 -40808267.92 -40808267.75 0.0270 0.0201
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 Saturn -116427-07-13 12:15 J -40803345.08 -40803344.99 -40803344.89 0.0292 0.0269
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 Uranus -116418-02-22 05:31 J -40800199.52 -40800199.27 -40800199.01 0.0134 0.0010
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 Saturn -116411-01-14 09:36 J -40797681.34 -40797681.10 -40797680.86 0.0268 0.0102
 Mars -116403-07-01 23:17 J -40794590.70 -40794590.53 -40794590.36 0.1680 0.0455
 Saturn -116398-07-07 13:55 J -40792759.13 -40792758.92 -40792758.70 0.0294 0.0113
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 Neptune -116382-01-08 08:39 J -40787095.23 -40787095.14 -40787095.00 0.0089 0.0079
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 Neptune -116378-01-17 21:51 J -40785624.80 -40785624.59 -40785624.34 0.0089 0.0045
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 Uranus -116374-08-13 05:46 J -40783956.51 -40783956.26 -40783956.00 0.0145 0.0018
 Uranus -116373-08-17 14:24 J -40783585.98 -40783585.90 -40783585.78 0.0146 0.0134
 Pluto -116367-06-10 08:10 J -40781463.41 -40781463.16 -40781462.90 0.0081 0.0004
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 Saturn -116352-01-15 14:53 J -40776130.13 -40776129.88 -40776129.63 0.0269 0.0023
 Jupiter -116350-08-05 09:22 J -40775198.33 -40775198.11 -40775197.89 0.0506 0.0162
 Saturn -116339-07-09 02:53 J -40771207.61 -40771207.38 -40771207.15 0.0293 0.0018
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 Mars -116324-07-04 00:29 J -40765733.62 -40765733.48 -40765733.34 0.1682 0.1113

Jupiter -116308-02-06 12:29 J -40760037.11 -40760036.98 -40760036.84 0.0518 0.0420
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 Neptune -116299-07-04 01:12 J -40756602.64 -40756602.45 -40756602.22 0.0089 0.0051
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 Saturn -116293-01-18 06:15 J -40754578.47 -40754578.24 -40754578.00 0.0269 0.0069
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 Jupiter -116284-02-16 07:41 J -40751261.28 -40751261.18 -40751261.07 0.0520 0.0464
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 Neptune -116215-01-14 13:12 J -40726092.22 -40726091.95 -40726091.68 0.0089 0.0003
 Neptune -116214-01-16 22:05 J -40725724.80 -40725724.58 -40725724.32 0.0089 0.0035
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Jupiter -116213-02-11 02:53 J -40725334.61 -40725334.38 -40725334.15 0.0518 0.0093
 Pluto -116209-12-13 07:55 J -40723567.17 -40723567.17 -40723567.11 0.0063 0.0063
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 Saturn -116205-01-14 19:41 J -40722439.91 -40722439.68 -40722439.45 0.0268 0.0122
 Uranus -116205-08-18 08:53 J -40722223.16 -40722223.13 -40722223.07 0.0145 0.0143
 Jupiter -116201-02-16 06:15 J -40720946.40 -40720946.24 -40720946.07 0.0520 0.0351
 Mars -116198-07-01 06:00 J -40719715.37 -40719715.25 -40719715.12 0.1675 0.1288
 Jupiter -116196-07-29 17:17 J -40718955.91 -40718955.78 -40718955.63 0.0508 0.0401
 Saturn -116192-07-06 22:48 J -40717517.75 -40717517.55 -40717517.36 0.0295 0.0154
 Jupiter -116184-08-03 11:31 J -40714568.25 -40714568.02 -40714567.79 0.0507 0.0012
 Saturn -116175-01-21 15:36 J -40711474.89 -40711474.85 -40711474.79 0.0270 0.0265
 Jupiter -116172-08-07 16:34 J -40710180.94 -40710180.81 -40710180.65 0.0506 0.0401
 Uranus -116167-02-19 05:17 J -40708524.47 -40708524.28 -40708524.06 0.0134 0.0085
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 Saturn -116146-01-16 11:03 J -40700888.28 -40700888.04 -40700887.79 0.0269 0.0024
 Neptune -116135-07-03 15:22 J -40696702.03 -40696701.86 -40696701.67 0.0089 0.0060
 Neptune -116134-07-05 17:31 J -40696334.99 -40696334.77 -40696334.54 0.0089 0.0038
 Neptune -116133-07-07 08:53 J -40695967.38 -40695967.13 -40695966.87 0.0089 0.0003
 Saturn -116133-07-08 21:22 J -40695965.85 -40695965.61 -40695965.37 0.0294 0.0030
 Neptune -116132-07-09 11:17 J -40695600.26 -40695600.03 -40695599.78 0.0089 0.0020
 Neptune -116131-07-12 00:58 J -40695232.66 -40695232.46 -40695232.25 0.0089 0.0055
 Jupiter -116130-02-10 09:51 J -40695019.30 -40695019.09 -40695018.88 0.0518 0.0189
 Neptune -116130-07-14 06:58 J -40694865.32 -40694865.21 -40694865.09 0.0089 0.0077
 Uranus -116123-08-09 19:27 J -40692281.79 -40692281.69 -40692281.56 0.0144 0.0130
 Uranus -116122-08-14 18:00 J -40691911.99 -40691911.75 -40691911.50 0.0145 0.0014
 Uranus -116121-08-18 21:22 J -40691541.68 -40691541.61 -40691541.51 0.0145 0.0137
 Pluto -116119-06-11 07:55 J -40690880.35 -40690880.17 -40690879.98 0.0081 0.0050

Mars -116119-07-03 12:58 J -40690858.15 -40690857.96 -40690857.78 0.1677 0.0059
 Jupiter -116118-02-15 03:22 J -40690631.57 -40690631.36 -40690631.15 0.0519 0.0251
 Jupiter -116113-07-28 23:17 J -40688640.57 -40688640.53 -40688640.49 0.0508 0.0500
 Jupiter -116101-08-02 05:46 J -40684253.49 -40684253.26 -40684253.03 0.0508 0.0102
 Jupiter -116089-08-06 23:03 J -40679865.70 -40679865.54 -40679865.36 0.0506 0.0322
 Saturn -116087-01-18 03:51 J -40679336.57 -40679336.34 -40679336.10 0.0269 0.0069
 Uranus -116083-02-19 13:55 J -40677843.09 -40677842.92 -40677842.71 0.0134 0.0093
 Uranus -116082-02-23 23:46 J -40677473.74 -40677473.51 -40677473.25 0.0134 0.0028
 Uranus -116081-02-28 06:00 J -40677104.35 -40677104.25 -40677104.11 0.0134 0.0120
 Saturn -116074-07-11 12:29 J -40674414.21 -40674413.98 -40674413.74 0.0293 0.0087
 Saturn -116058-01-12 18:58 J -40668749.83 -40668749.71 -40668749.56 0.0267 0.0228
 Neptune -116053-01-09 08:10 J -40666927.27 -40666927.16 -40666927.02 0.0089 0.0078
 Neptune -116052-01-11 01:55 J -40666559.64 -40666559.42 -40666559.15 0.0089 0.0039
 Neptune -116051-01-13 16:34 J -40666192.06 -40666191.81 -40666191.56 0.0089 0.0016
 Neptune -116050-01-16 05:46 J -40665824.51 -40665824.26 -40665823.98 0.0089 0.0023
 Neptune -116049-01-18 23:46 J -40665456.71 -40665456.51 -40665456.26 0.0089 0.0045
 Neptune -116048-01-20 08:24 J -40665089.21 -40665089.15 -40665089.02 0.0089 0.0083
 Jupiter -116047-02-09 02:39 J -40664704.59 -40664704.39 -40664704.19 0.0518 0.0288
 Saturn -116045-07-04 21:22 J -40663827.65 -40663827.61 -40663827.55 0.0295 0.0288
 Mars -116040-07-05 13:12 J -40662000.97 -40662000.95 -40662000.94 0.1679 0.1670
 Uranus -116039-08-10 06:29 J -40661600.37 -40661600.23 -40661600.07 0.0144 0.0118
 Uranus -116038-08-15 07:55 J -40661230.41 -40661230.17 -40661229.93 0.0145 0.0010
 Jupiter -116035-02-14 00:58 J -40660316.67 -40660316.46 -40660316.24 0.0519 0.0137
 Saturn -116028-01-19 13:55 J -40657785.12 -40657784.92 -40657784.70 0.0270 0.0154
 Jupiter -116018-08-02 11:31 J -40653938.22 -40653938.02 -40653937.81 0.0507 0.0198
 Saturn -116015-07-12 22:34 J -40652862.73 -40652862.56 -40652862.37 0.0293 0.0192
 Jupiter -116006-08-06 20:39 J -40649550.85 -40649550.64 -40649550.42 0.0506 0.0221

116TH MILLENNIUM

BCE

This is a list of transits of Moon in the 116th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-115999-01-14 01:12 J		-40647198.64	-40647198.45	-40647198.23	0.0267	0.0150	
Uranus	-115999-02-19 23:17 J		-40647161.72	-40647161.53	-40647161.29	0.0134	0.0078	
Uranus	-115998-02-24 12:29 J		-40646792.22	-40646791.98	-40646791.74	0.0134	0.0020	
Saturn	-115986-07-07 12:58 J		-40642276.13	-40642275.96	-40642275.77	0.0295	0.0184	
Neptune	-115971-07-02 21:22 J		-40636801.75	-40636801.61	-40636801.45	0.0089	0.0071	
Neptune	-115970-07-05 11:17 J		-40636434.23	-40636434.03	-40636433.81	0.0089	0.0051	
Saturn	-115969-01-21 14:53 J		-40636234.00	-40636233.88	-40636233.74	0.0270	0.0232	
Neptune	-115969-07-06 15:36 J		-40636067.08	-40636066.85	-40636066.60	0.0089	0.0015	
Neptune	-115968-07-09 01:55 J		-40635699.68	-40635699.42	-40635699.16	0.0089	0.0006	
Neptune	-115967-07-11 11:31 J		-40635332.22	-40635332.02	-40635331.80	0.0089	0.0043	
Neptune	-115966-07-13 16:48 J		-40634964.96	-40634964.80	-40634964.60	0.0089	0.0064	
Jupiter	-115964-02-08 06:58 J		-40634389.36	-40634389.21	-40634389.06	0.0517	0.0388	
Pluto	-115960-12-16 03:36 J		-40632617.58	-40632617.35	-40632617.08	0.0063	0.0022	
Pluto	-115959-12-17 11:17 J		-40632251.15	-40632251.03	-40632250.83	0.0064	0.0052	
Saturn	-115956-07-14 09:22 J		-40631311.15	-40631311.11	-40631311.05	0.0293	0.0286	
Uranus	-115955-08-10 17:17 J		-40630918.92	-40630918.78	-40630918.60	0.0144	0.0112	
Mars	-115954-01-08 23:17 J		-40630767.75	-40630767.53	-40630767.31	0.1838	0.0470	
Uranus	-115954-08-15 20:53 J		-40630548.86	-40630548.63	-40630548.38	0.0145	0.0026	
Jupiter	-115952-02-13 04:05 J		-40630001.57	-40630001.33	-40630001.09	0.0519	0.0055	
Saturn	-115940-01-15 09:51 J		-40625647.32	-40625647.09	-40625646.85	0.0267	0.0077	

Jupiter -115935-08-01 11:46 J -40623623.20 -40623623.01 -40623622.80 0.0508 0.0274
 Saturn -115927-07-08 18:29 J -40620724.96 -40620724.73 -40620724.50 0.0295 0.0096
 Jupiter -115923-08-06 02:10 J -40619235.62 -40619235.41 -40619235.19 0.0507 0.0151
 Uranus -115915-02-20 09:22 J -40616480.30 -40616480.11 -40616479.88 0.0134 0.0080
 Uranus -115914-02-24 23:46 J -40616110.74 -40616110.51 -40616110.26 0.0134 0.0036
 Mars -115914-07-02 03:22 J -40615983.51 -40615983.36 -40615983.21 0.1672 0.0862
 Uranus -115913-02-29 01:12 J -40615741.51 -40615741.45 -40615741.37 0.0133 0.0128
 Neptune -115889-01-08 16:19 J -40607026.86 -40607026.82 -40607026.76 0.0089 0.0087
 Neptune -115888-01-10 10:48 J -40606659.25 -40606659.05 -40606658.85 0.0089 0.0055
 Neptune -115887-01-12 20:10 J -40606291.91 -40606291.66 -40606291.39 0.0089 0.0027
 Neptune -115886-01-15 17:46 J -40605924.02 -40605923.76 -40605923.50 0.0089 0.0005
 Neptune -115885-01-18 00:43 J -40605556.69 -40605556.47 -40605556.21 0.0089 0.0036
 Neptune -115884-01-19 22:34 J -40605188.73 -40605188.56 -40605188.37 0.0089 0.0066
 Saturn -115881-01-17 13:12 J -40604096.21 -40604095.95 -40604095.70 0.0267 0.0011
 Jupiter -115881-02-08 11:03 J -40604074.15 -40604074.04 -40604073.92 0.0518 0.0455
 Uranus -115871-08-11 00:29 J -40600237.64 -40600237.48 -40600237.32 0.0144 0.0113
 Pluto -115870-06-14 11:46 J -40599930.22 -40599930.01 -40599929.76 0.0081 0.0031
 Uranus -115870-08-16 06:00 J -40599867.50 -40599867.25 -40599867.01 0.0145 0.0021
 Jupiter -115869-02-13 11:17 J -40599686.26 -40599686.03 -40599685.81 0.0519 0.0010
 Saturn -115868-07-09 15:22 J -40599174.10 -40599173.86 -40599173.62 0.0295 0.0027
 Jupiter -115857-02-18 10:34 J -40595298.13 -40595298.06 -40595297.96 0.0519 0.0486
 Jupiter -115852-07-31 23:31 J -40593307.68 -40593307.52 -40593307.35 0.0508 0.0337
 Jupiter -115840-08-05 12:58 J -40588920.19 -40588919.96 -40588919.72 0.0507 0.0091
 Mars -115835-07-04 04:34 J -40587126.50 -40587126.31 -40587126.13 0.1673 0.0123
 Uranus -115831-02-20 18:43 J -40585798.92 -40585798.72 -40585798.49 0.0134 0.0072
 Uranus -115830-02-25 10:34 J -40585429.30 -40585429.06 -40585428.81 0.0134 0.0029
 Saturn -115822-01-18 06:00 J -40582545.50 -40582545.25 -40582544.99 0.0267 0.0054
 Saturn -115809-07-10 13:27 J -40577623.17 -40577622.94 -40577622.71 0.0295 0.0034
 Neptune -115807-07-02 14:53 J -40576900.89 -40576900.88 -40576900.83 0.0089 0.0088
 Neptune -115806-07-04 22:05 J -40576533.73 -40576533.58 -40576533.38 0.0089 0.0060

Neptune -115805-07-06 04:34 J -40576166.54 -40576166.31 -40576166.05 0.0089 0.0031
 Neptune -115804-07-08 17:17 J -40575799.02 -40575798.78 -40575798.53 0.0089 0.0001
 Neptune -115803-07-10 19:55 J -40575431.90 -40575431.67 -40575431.42 0.0089 0.0028
 Neptune -115802-07-13 11:31 J -40575064.21 -40575064.02 -40575063.82 0.0089 0.0056
 Neptune -115801-07-14 13:27 J -40574697.01 -40574696.94 -40574696.86 0.0089 0.0084
 Saturn -115793-01-13 01:12 J -40571958.53 -40571958.45 -40571958.36 0.0266 0.0247
 Uranus -115787-08-11 05:31 J -40569556.42 -40569556.27 -40569556.08 0.0144 0.0107
 Jupiter -115786-02-12 20:39 J -40569370.88 -40569370.64 -40569370.40 0.0518 0.0073
 Uranus -115786-08-16 11:46 J -40569186.26 -40569186.01 -40569185.76 0.0145 0.0022
 Jupiter -115774-02-17 14:10 J -40564983.03 -40564982.91 -40564982.78 0.0520 0.0428
 Jupiter -115769-07-31 12:29 J -40562992.14 -40562991.98 -40562991.83 0.0508 0.0384
 Saturn -115763-01-19 00:15 J -40560994.71 -40560994.49 -40560994.26 0.0267 0.0114
 Jupiter -115757-08-04 20:39 J -40558604.87 -40558604.64 -40558604.42 0.0507 0.0044
 Saturn -115750-07-12 12:00 J -40556072.22 -40556072.00 -40556071.77 0.0295 0.0081
 Uranus -115747-02-21 01:41 J -40555117.62 -40555117.43 -40555117.20 0.0135 0.0073
 Uranus -115746-02-25 17:17 J -40554748.01 -40554747.78 -40554747.52 0.0134 0.0038
 Uranus -115745-02-29 17:17 J -40554378.79 -40554378.78 -40554378.73 0.0134 0.0133
 Saturn -115734-01-13 22:48 J -40550407.72 -40550407.55 -40550407.36 0.0266 0.0189
 Neptune -115724-01-09 12:29 J -40546759.10 -40546758.98 -40546758.80 0.0089 0.0073
 Neptune -115723-01-12 11:03 J -40546391.27 -40546391.04 -40546390.77 0.0089 0.0034
 Neptune -115722-01-14 19:55 J -40546023.92 -40546023.67 -40546023.41 0.0089 0.0011
 Neptune -115721-01-17 15:22 J -40545656.11 -40545655.86 -40545655.59 0.0089 0.0028
 Neptune -115720-01-19 02:39 J -40545288.58 -40545288.39 -40545288.16 0.0089 0.0050
 Neptune -115719-01-21 17:17 J -40544920.79 -40544920.78 -40544920.72 0.0089 0.0088
 Pluto -115711-12-18 14:10 J -40541668.18 -40541667.91 -40541667.63 0.0063 0.0011
 Saturn -115704-01-20 01:27 J -40539443.61 -40539443.44 -40539443.24 0.0267 0.0174
 Jupiter -115703-02-12 02:53 J -40539055.60 -40539055.38 -40539055.15 0.0519 0.0127
 Uranus -115703-08-11 12:00 J -40538875.13 -40538875.00 -40538874.85 0.0144 0.0117
 Uranus -115702-08-16 17:46 J -40538505.01 -40538504.76 -40538504.51 0.0145 0.0022
 Jupiter -115691-02-17 09:36 J -40534667.25 -40534667.10 -40534666.94 0.0520 0.0395

Saturn -115691-07-13 05:03 J -40534521.50 -40534521.29 -40534521.06 0.0295 0.0128
 Jupiter -115686-07-31 20:39 J -40532676.74 -40532676.64 -40532676.52 0.0508 0.0439
 Saturn -115675-01-14 14:39 J -40528857.11 -40528856.89 -40528856.65 0.0266 0.0129
 Jupiter -115674-08-05 15:22 J -40528289.10 -40528288.86 -40528288.63 0.0507 0.0007
 Mars -115670-01-08 02:24 J -40527037.55 -40527037.40 -40527037.25 0.1843 0.1105
 Uranus -115663-02-21 07:55 J -40524436.36 -40524436.17 -40524435.94 0.0135 0.0075
 Uranus -115662-02-25 23:03 J -40524066.78 -40524066.54 -40524066.28 0.0134 0.0032
 Saturn -115662-07-07 00:43 J -40523935.54 -40523935.47 -40523935.37 0.0297 0.0275
 Jupiter -115662-08-09 21:36 J -40523901.66 -40523901.60 -40523901.52 0.0506 0.0478
 Saturn -115645-01-22 01:27 J -40517892.56 -40517892.44 -40517892.31 0.0267 0.0233
 Neptune -115642-07-04 08:53 J -40516633.29 -40516633.13 -40516632.95 0.0089 0.0066
 Neptune -115641-07-05 23:03 J -40516265.74 -40516265.54 -40516265.32 0.0089 0.0047
 Neptune -115640-07-08 00:58 J -40515898.70 -40515898.46 -40515898.21 0.0089 0.0009
 Neptune -115639-07-10 16:05 J -40515531.08 -40515530.83 -40515530.58 0.0089 0.0010
 Neptune -115638-07-12 18:58 J -40515163.89 -40515163.71 -40515163.48 0.0089 0.0049
 Neptune -115637-07-14 06:43 J -40514796.36 -40514796.22 -40514796.04 0.0089 0.0069
 Saturn -115632-07-13 16:34 J -40512971.00 -40512970.81 -40512970.61 0.0295 0.0172
 Mars -115630-07-03 18:29 J -40512250.91 -40512250.73 -40512250.55 0.1669 0.0258
 Pluto -115622-06-14 21:36 J -40509347.77 -40509347.60 -40509347.39 0.0081 0.0050
 Jupiter -115620-02-11 18:15 J -40508739.96 -40508739.74 -40508739.51 0.0518 0.0177
 Uranus -115619-08-11 21:51 J -40508193.74 -40508193.59 -40508193.40 0.0144 0.0102
 Uranus -115618-08-17 02:10 J -40507823.66 -40507823.41 -40507823.15 0.0145 0.0021
 Saturn -115616-01-15 10:34 J -40507306.30 -40507306.06 -40507305.82 0.0266 0.0069
 Jupiter -115608-02-16 10:19 J -40504352.24 -40504352.07 -40504351.89 0.0519 0.0334
 Saturn -115603-07-07 23:46 J -40502384.65 -40502384.51 -40502384.35 0.0297 0.0224
 Jupiter -115603-07-31 15:51 J -40502360.91 -40502360.84 -40502360.75 0.0508 0.0477
 Mars -115591-01-11 08:39 J -40498179.26 -40498179.14 -40498179.03 0.1841 0.1522
 Jupiter -115591-08-04 22:48 J -40497973.78 -40497973.55 -40497973.32 0.0507 0.0033
 Uranus -115579-02-21 15:36 J -40493755.04 -40493754.85 -40493754.62 0.0135 0.0070
 Jupiter -115579-08-09 17:03 J -40493585.90 -40493585.79 -40493585.67 0.0506 0.0436

Uranus -115578-02-26 04:34 J -40493385.56 -40493385.31 -40493385.05 0.0134 0.0034
 Saturn -115573-07-14 11:03 J -40491420.18 -40491420.04 -40491419.89 0.0295 0.0228
 Neptune -115560-01-09 02:10 J -40486858.47 -40486858.41 -40486858.31 0.0089 0.0085
 Neptune -115559-01-11 14:24 J -40486491.12 -40486490.90 -40486490.68 0.0089 0.0047
 Neptune -115558-01-14 06:58 J -40486123.47 -40486123.21 -40486122.94 0.0089 0.0023
 Neptune -115557-01-16 23:03 J -40485755.78 -40485755.54 -40485755.28 0.0089 0.0015
 Saturn -115557-01-17 14:53 J -40485755.13 -40485754.88 -40485754.64 0.0266 0.0006
 Neptune -115556-01-18 10:34 J -40485388.29 -40485388.06 -40485387.80 0.0089 0.0039
 Neptune -115555-01-21 06:00 J -40485020.36 -40485020.25 -40485020.10 0.0089 0.0076
 Mars -115551-07-05 18:15 J -40483393.90 -40483393.74 -40483393.58 0.1671 0.0679
 Saturn -115544-07-08 19:12 J -40480833.90 -40480833.70 -40480833.49 0.0296 0.0164
 Jupiter -115537-02-11 14:24 J -40478425.10 -40478424.90 -40478424.70 0.0518 0.0260
 Uranus -115535-08-12 09:36 J -40477512.24 -40477512.10 -40477511.93 0.0144 0.0110
 Uranus -115534-08-17 12:00 J -40477142.25 -40477142.00 -40477141.74 0.0145 0.0032
 Jupiter -115525-02-16 22:19 J -40474036.76 -40474036.57 -40474036.37 0.0520 0.0271
 Jupiter -115508-08-04 13:55 J -40467658.14 -40467657.92 -40467657.69 0.0507 0.0093
 Saturn -115498-01-18 20:53 J -40464203.88 -40464203.63 -40464203.39 0.0266 0.0067
 Jupiter -115496-08-08 18:15 J -40463270.90 -40463270.74 -40463270.59 0.0506 0.0373
 Uranus -115495-02-22 01:12 J -40463073.64 -40463073.45 -40463073.23 0.0135 0.0075
 Uranus -115494-02-26 12:00 J -40462704.25 -40462704.00 -40462703.74 0.0134 0.0037
 Saturn -115485-07-09 15:22 J -40459283.09 -40459282.86 -40459282.62 0.0296 0.0089
 Neptune -115478-07-04 05:31 J -40456732.35 -40456732.27 -40456732.14 0.0089 0.0080
 Neptune -115477-07-05 07:41 J -40456365.37 -40456365.18 -40456364.99 0.0089 0.0056
 Neptune -115476-07-07 20:39 J -40455997.89 -40455997.64 -40455997.39 0.0089 0.0022
 Neptune -115475-07-10 02:10 J -40455630.65 -40455630.41 -40455630.17 0.0089 0.0002
 Neptune -115474-07-12 10:48 J -40455263.27 -40455263.05 -40455262.80 0.0089 0.0036
 Neptune -115473-07-13 21:51 J -40454895.76 -40454895.59 -40454895.39 0.0089 0.0059
 Saturn -115469-01-13 12:00 J -40453617.12 -40453617.00 -40453616.85 0.0265 0.0222
 Pluto -115463-12-19 06:58 J -40451085.39 -40451085.21 -40451085.00 0.0063 0.0041
 Pluto -115462-12-20 17:31 J -40450718.97 -40450718.77 -40450718.52 0.0064 0.0036

Jupiter -115454-02-11 04:48 J -40448109.48 -40448109.30 -40448109.11 0.0518 0.0320
 Uranus -115451-08-12 21:07 J -40446830.79 -40446830.62 -40446830.41 0.0144 0.0091
 Uranus -115450-08-17 21:22 J -40446460.86 -40446460.61 -40446460.35 0.0145 0.0028
 Jupiter -115442-02-15 20:39 J -40443721.86 -40443721.64 -40443721.42 0.0519 0.0195
 Saturn -115439-01-20 00:00 J -40442652.71 -40442652.50 -40442652.26 0.0267 0.0143
 Saturn -115426-07-11 22:34 J -40437731.79 -40437731.56 -40437731.32 0.0296 0.0004
 Jupiter -115425-08-03 14:24 J -40437343.12 -40437342.90 -40437342.68 0.0507 0.0155
 Jupiter -115413-08-08 09:51 J -40432955.26 -40432955.09 -40432954.92 0.0506 0.0324
 Uranus -115411-02-22 11:17 J -40432392.24 -40432392.03 -40432391.80 0.0135 0.0063
 Saturn -115410-01-14 23:03 J -40432065.74 -40432065.54 -40432065.32 0.0265 0.0140
 Uranus -115410-02-26 18:58 J -40432022.95 -40432022.71 -40432022.44 0.0134 0.0035
 Neptune -115395-01-10 21:36 J -40426590.77 -40426590.60 -40426590.38 0.0089 0.0064
 Neptune -115394-01-13 18:00 J -40426222.99 -40426222.75 -40426222.50 0.0089 0.0030
 Neptune -115393-01-16 03:07 J -40425855.63 -40425855.37 -40425855.09 0.0089 0.0003
 Neptune -115392-01-18 01:12 J -40425487.69 -40425487.45 -40425487.19 0.0089 0.0032
 Neptune -115391-01-20 08:39 J -40425120.33 -40425120.14 -40425119.93 0.0089 0.0058
 Mars -115386-01-07 16:34 J -40423306.88 -40423306.81 -40423306.74 0.1848 0.1744
 Saturn -115380-01-21 06:29 J -40421101.35 -40421101.23 -40421101.09 0.0267 0.0229
 Pluto -115373-06-16 18:00 J -40418398.00 -40418397.75 -40418397.51 0.0081 0.0000
 Jupiter -115371-02-09 20:39 J -40417794.77 -40417794.64 -40417794.50 0.0517 0.0418
 Saturn -115367-07-13 14:39 J -40416180.10 -40416179.89 -40416179.67 0.0295 0.0107
 Uranus -115367-08-13 08:24 J -40416149.31 -40416149.15 -40416148.97 0.0144 0.0102
 Uranus -115366-08-18 05:46 J -40415779.50 -40415779.26 -40415779.00 0.0145 0.0043
 Jupiter -115359-02-14 21:22 J -40413406.84 -40413406.61 -40413406.39 0.0519 0.0082
 Saturn -115351-01-16 14:24 J -40410514.14 -40410513.90 -40410513.65 0.0266 0.0050
 Mars -115346-07-04 10:34 J -40408519.25 -40408519.06 -40408518.87 0.1666 0.0085
 Jupiter -115342-08-03 23:46 J -40407027.71 -40407027.51 -40407027.31 0.0508 0.0238
 Saturn -115338-07-07 19:12 J -40405593.80 -40405593.70 -40405593.57 0.0297 0.0264
 Jupiter -115330-08-08 04:19 J -40402640.53 -40402640.32 -40402640.10 0.0506 0.0225
 Uranus -115327-02-22 22:34 J -40401710.76 -40401710.56 -40401710.34 0.0135 0.0071

Uranus -115326-02-27 04:19 J -40401341.57 -40401341.32 -40401341.08 0.0134 0.0046
 Neptune -115313-07-05 01:55 J -40396464.58 -40396464.42 -40396464.21 0.0089 0.0062
 Neptune -115312-07-07 10:05 J -40396097.29 -40396097.08 -40396096.86 0.0089 0.0039
 Neptune -115311-07-09 15:22 J -40395730.11 -40395729.86 -40395729.60 0.0089 0.0006
 Neptune -115310-07-12 04:19 J -40395362.55 -40395362.32 -40395362.08 0.0089 0.0019
 Neptune -115309-07-13 06:43 J -40394995.42 -40394995.22 -40394995.01 0.0089 0.0053
 Saturn -115308-07-15 08:24 J -40394628.30 -40394628.15 -40394627.99 0.0295 0.0222
 Neptune -115308-07-15 21:51 J -40394627.69 -40394627.59 -40394627.44 0.0089 0.0077
 Mars -115307-01-11 08:39 J -40394448.31 -40394448.14 -40394447.97 0.1845 0.1014
 Saturn -115292-01-18 02:39 J -40388962.64 -40388962.39 -40388962.12 0.0266 0.0045
 Uranus -115283-08-13 15:36 J -40385468.04 -40385467.85 -40385467.65 0.0144 0.0088
 Uranus -115282-08-18 10:19 J -40385098.32 -40385098.07 -40385097.81 0.0145 0.0028
 Saturn -115279-07-09 13:27 J -40384042.13 -40384041.94 -40384041.73 0.0297 0.0143
 Jupiter -115276-02-13 16:19 J -40383092.06 -40383091.82 -40383091.58 0.0519 0.0016
 Mars -115267-07-06 18:00 J -40379661.89 -40379661.75 -40379661.60 0.1668 0.1120
 Jupiter -115264-02-18 18:29 J -40378703.79 -40378703.73 -40378703.66 0.0520 0.0496
 Saturn -115263-01-12 21:36 J -40378375.70 -40378375.60 -40378375.49 0.0265 0.0238
 Jupiter -115259-08-02 16:19 J -40376712.99 -40376712.82 -40376712.64 0.0508 0.0339
 Jupiter -115247-08-07 09:07 J -40372325.33 -40372325.12 -40372324.91 0.0507 0.0140
 Uranus -115243-02-23 07:12 J -40371029.42 -40371029.20 -40371028.96 0.0135 0.0057
 Uranus -115242-02-27 10:48 J -40370660.29 -40370660.05 -40370659.79 0.0134 0.0037
 Saturn -115233-01-20 11:46 J -40367411.23 -40367411.01 -40367410.79 0.0267 0.0139
 Neptune -115231-01-10 12:15 J -40366690.09 -40366689.99 -40366689.86 0.0089 0.0080
 Neptune -115230-01-12 20:39 J -40366322.86 -40366322.64 -40366322.39 0.0089 0.0040
 Neptune -115229-01-15 19:12 J -40365954.96 -40365954.70 -40365954.43 0.0089 0.0018
 Neptune -115228-01-17 04:19 J -40365587.56 -40365587.32 -40365587.06 0.0089 0.0023
 Neptune -115227-01-19 23:17 J -40365219.75 -40365219.53 -40365219.28 0.0089 0.0045
 Neptune -115226-01-22 12:00 J -40364852.07 -40364852.00 -40364851.92 0.0089 0.0084
 Saturn -115220-07-11 13:41 J -40362490.16 -40362489.93 -40362489.70 0.0296 0.0015
 Pluto -115214-12-21 17:46 J -40360136.03 -40360135.76 -40360135.50 0.0063 0.0015

Pluto -115213-12-22 00:43 J -40359769.55 -40359769.47 -40359769.32 0.0064 0.0057
 Saturn -115204-01-14 16:05 J -40356824.03 -40356823.83 -40356823.61 0.0265 0.0144
 Uranus -115199-08-13 21:36 J -40354786.76 -40354786.60 -40354786.42 0.0144 0.0104
 Uranus -115198-08-18 13:55 J -40354417.16 -40354416.92 -40354416.66 0.0145 0.0040
 Jupiter -115193-02-13 17:46 J -40352776.98 -40352776.76 -40352776.54 0.0518 0.0123
 Jupiter -115181-02-18 09:36 J -40348389.27 -40348389.10 -40348388.92 0.0519 0.0366
 Jupiter -115176-08-02 00:00 J -40346397.62 -40346397.50 -40346397.38 0.0509 0.0422
 Saturn -115174-01-22 00:43 J -40345859.58 -40345859.47 -40345859.34 0.0267 0.0233
 Jupiter -115164-08-06 06:29 J -40342010.47 -40342010.23 -40342009.99 0.0507 0.0037
 Saturn -115161-07-13 11:46 J -40340938.22 -40340938.01 -40340937.78 0.0296 0.0108
 Uranus -115159-02-23 15:07 J -40340348.09 -40340347.87 -40340347.66 0.0135 0.0070
 Uranus -115158-02-27 17:03 J -40339979.01 -40339978.79 -40339978.54 0.0134 0.0051
 Jupiter -115152-08-10 16:48 J -40337622.89 -40337622.80 -40337622.70 0.0506 0.0459
 Neptune -115149-07-04 18:43 J -40336563.84 -40336563.72 -40336563.56 0.0089 0.0072
 Neptune -115148-07-06 21:36 J -40336196.78 -40336196.60 -40336196.37 0.0089 0.0052
 Neptune -115147-07-09 12:15 J -40335829.23 -40335828.99 -40335828.74 0.0089 0.0014
 Neptune -115146-07-11 13:41 J -40335462.17 -40335461.93 -40335461.68 0.0089 0.0006
 Saturn -115145-01-17 04:19 J -40335272.57 -40335272.32 -40335272.06 0.0266 0.0053
 Neptune -115145-07-13 04:05 J -40335094.55 -40335094.33 -40335094.10 0.0089 0.0043
 Neptune -115144-07-15 07:12 J -40334727.35 -40334727.20 -40334727.02 0.0089 0.0064
 Mars -115141-07-03 02:38 J -40333643.52 -40333643.39 -40333643.25 0.1662 0.1084
 Saturn -115132-07-07 14:53 J -40330351.97 -40330351.88 -40330351.77 0.0297 0.0267
 Pluto -115124-06-19 04:48 J -40327448.51 -40327448.30 -40327448.07 0.0081 0.0040
 Uranus -115115-08-14 03:50 J -40324105.52 -40324105.34 -40324105.13 0.0144 0.0093
 Uranus -115114-08-18 19:26 J -40323735.94 -40323735.69 -40323735.44 0.0144 0.0024
 Jupiter -115110-02-12 09:22 J -40322462.32 -40322462.11 -40322461.89 0.0517 0.0240
 Saturn -115102-07-16 02:53 J -40319386.53 -40319386.38 -40319386.21 0.0295 0.0224
 Jupiter -115098-02-17 10:48 J -40318074.24 -40318074.05 -40318073.86 0.0519 0.0275
 Saturn -115086-01-18 09:07 J -40313721.38 -40313721.12 -40313720.86 0.0266 0.0028
 Jupiter -115081-08-05 07:41 J -40311695.40 -40311695.18 -40311694.96 0.0508 0.0054

Uranus -115075-02-23 20:24 J -40309666.89 -40309666.65 -40309666.42 0.0135 0.0056
 Uranus -115074-02-27 22:48 J -40309297.78 -40309297.55 -40309297.29 0.0134 0.0036
 Saturn -115073-07-09 07:12 J -40308800.39 -40308800.20 -40308800.01 0.0297 0.0156
 Jupiter -115069-08-09 21:36 J -40307307.76 -40307307.60 -40307307.43 0.0507 0.0372
 Neptune -115066-01-12 09:50 J -40306422.28 -40306422.09 -40306421.85 0.0089 0.0055
 Neptune -115065-01-14 23:17 J -40306054.77 -40306054.53 -40306054.28 0.0089 0.0027
 Neptune -115064-01-16 15:07 J -40305687.14 -40305686.87 -40305686.59 0.0089 0.0007
 Neptune -115063-01-19 08:10 J -40305319.38 -40305319.16 -40305318.91 0.0089 0.0036
 Neptune -115062-01-21 18:43 J -40304951.86 -40304951.72 -40304951.52 0.0089 0.0069
 Mars -115062-07-05 23:17 J -40304786.70 -40304786.53 -40304786.36 0.1664 0.0333
 Saturn -115057-01-13 11:17 J -40303134.09 -40303134.03 -40303133.93 0.0265 0.0249
 Uranus -115031-08-14 13:12 J -40293424.13 -40293423.95 -40293423.76 0.0144 0.0099
 Uranus -115030-08-19 04:05 J -40293054.56 -40293054.33 -40293054.08 0.0144 0.0042
 Saturn -115027-01-19 13:26 J -40292170.16 -40292169.94 -40292169.70 0.0266 0.0102
 Jupiter -115027-02-11 16:05 J -40292147.01 -40292146.83 -40292146.65 0.0518 0.0318
 Mars -115023-01-09 20:24 J -40290718.87 -40290718.65 -40290718.43 0.1850 0.0044
 Jupiter -115015-02-16 16:05 J -40287759.05 -40287758.83 -40287758.60 0.0519 0.0194
 Saturn -115014-07-11 20:24 J -40287248.87 -40287248.65 -40287248.41 0.0297 0.0057

115TH MILLENNIUM BCE

This is a list of transits of Moon in the 115th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								

TIME

Saturn -114998-01-14 17:17 J -40281582.96 -40281582.78 -40281582.58 0.0265 0.0177
Jupiter -114998-08-05 15:36 J -40281380.08 -40281379.85 -40281379.62 0.0508 0.0123
Uranus -114991-02-24 03:36 J -40278985.57 -40278985.35 -40278985.12 0.0135 0.0068
Uranus -114990-02-28 07:26 J -40278616.42 -40278616.19 -40278615.96 0.0134 0.0052
Jupiter -114986-08-09 23:02 J -40276992.71 -40276992.54 -40276992.35 0.0507 0.0297
Neptune -114985-07-04 04:19 J -40276663.35 -40276663.32 -40276663.25 0.0088 0.0087
Neptune -114984-07-06 18:43 J -40276295.89 -40276295.72 -40276295.51 0.0088 0.0059
Mars -114983-07-07 18:14 J -40275929.80 -40275929.74 -40275929.68 0.1665 0.1558
Neptune -114983-07-08 20:38 J -40275928.85 -40275928.64 -40275928.39 0.0089 0.0031
Neptune -114982-07-11 09:36 J -40275561.35 -40275561.10 -40275560.84 0.0089 0.0001
Neptune -114981-07-12 15:36 J -40275194.07 -40275193.85 -40275193.61 0.0089 0.0029
Neptune -114980-07-14 23:46 J -40274826.71 -40274826.51 -40274826.31 0.0089 0.0057
Neptune -114979-07-17 10:19 J -40274459.09 -40274459.07 -40274458.99 0.0089 0.0087
Saturn -114968-01-20 19:55 J -40270618.85 -40270618.67 -40270618.47 0.0266 0.0165
Pluto -114965-12-22 21:50 J -40269186.85 -40269186.59 -40269186.30 0.0063 0.0014
Saturn -114955-07-12 21:50 J -40265697.83 -40265697.59 -40265697.34 0.0297 0.0027
Uranus -114947-08-14 22:19 J -40262742.76 -40262742.57 -40262742.35 0.0144 0.0088
Uranus -114946-08-19 14:38 J -40262373.12 -40262372.89 -40262372.64 0.0144 0.0034
Jupiter -114944-02-10 18:58 J -40261831.86 -40261831.71 -40261831.55 0.0517 0.0393
Saturn -114939-01-15 13:26 J -40260032.18 -40260031.94 -40260031.70 0.0265 0.0118
Jupiter -114932-02-15 16:05 J -40257444.05 -40257443.83 -40257443.60 0.0518 0.0114
Jupiter -114915-08-04 21:50 J -40251064.80 -40251064.59 -40251064.38 0.0508 0.0181
Saturn -114909-01-22 22:05 J -40249067.72 -40249067.58 -40249067.44 0.0266 0.0220
Uranus -114907-02-24 10:34 J -40248304.29 -40248304.06 -40248303.80 0.0135 0.0054
Uranus -114906-02-28 16:34 J -40247935.03 -40247934.81 -40247934.56 0.0134 0.0042
Jupiter -114903-08-09 13:26 J -40246677.15 -40246676.94 -40246676.73 0.0507 0.0236
Neptune -114902-01-11 18:00 J -40246521.87 -40246521.75 -40246521.57 0.0089 0.0073
Neptune -114901-01-14 06:00 J -40246154.49 -40246154.25 -40246153.99 0.0089 0.0035
Neptune -114900-01-16 03:22 J -40245786.62 -40245786.36 -40245786.10 0.0089 0.0010

Neptune -114899-01-18 11:46 J -40245419.25 -40245419.01 -40245418.74 0.0089 0.0029
 Neptune -114898-01-21 10:05 J -40245051.28 -40245051.08 -40245050.85 0.0089 0.0052
 Saturn -114896-07-13 15:07 J -40244147.10 -40244146.87 -40244146.64 0.0297 0.0099
 Saturn -114880-01-16 08:10 J -40238481.40 -40238481.16 -40238480.91 0.0265 0.0065
 Pluto -114876-06-19 21:07 J -40236865.83 -40236865.62 -40236865.40 0.0081 0.0037
 Saturn -114867-07-07 23:17 J -40233560.55 -40233560.53 -40233560.49 0.0299 0.0295
 Uranus -114863-08-15 08:24 J -40232061.35 -40232061.15 -40232060.94 0.0144 0.0086
 Uranus -114862-08-20 02:24 J -40231691.63 -40231691.40 -40231691.17 0.0145 0.0049
 Jupiter -114861-02-10 23:46 J -40231516.61 -40231516.51 -40231516.41 0.0517 0.0461
 Mars -114857-07-03 22:05 J -40229911.75 -40229911.58 -40229911.40 0.1660 0.0658
 Jupiter -114849-02-16 06:29 J -40227128.47 -40227128.23 -40227127.99 0.0519 0.0061
 Jupiter -114837-02-21 00:29 J -40222740.51 -40222740.48 -40222740.43 0.0520 0.0510
 Saturn -114837-07-14 11:17 J -40222596.22 -40222596.03 -40222595.83 0.0297 0.0158
 Jupiter -114832-08-04 12:43 J -40220749.18 -40220748.97 -40220748.76 0.0508 0.0230
 Uranus -114823-02-24 20:10 J -40217622.89 -40217622.66 -40217622.41 0.0135 0.0059
 Uranus -114822-03-01 04:05 J -40217253.55 -40217253.33 -40217253.10 0.0134 0.0058
 Saturn -114821-01-18 07:55 J -40216930.41 -40216930.17 -40216929.92 0.0264 0.0020
 Neptune -114820-07-06 05:31 J -40216395.42 -40216395.27 -40216395.10 0.0088 0.0066
 Jupiter -114820-08-08 18:43 J -40216361.93 -40216361.72 -40216361.50 0.0507 0.0185
 Neptune -114819-07-08 14:53 J -40216028.10 -40216027.88 -40216027.65 0.0088 0.0045
 Neptune -114818-07-10 23:31 J -40215660.76 -40215660.52 -40215660.28 0.0089 0.0008
 Neptune -114817-07-12 04:05 J -40215293.58 -40215293.33 -40215293.07 0.0089 0.0013
 Neptune -114816-07-14 17:31 J -40214925.96 -40214925.77 -40214925.55 0.0089 0.0050
 Neptune -114815-07-16 19:26 J -40214558.83 -40214558.69 -40214558.52 0.0089 0.0070
 Saturn -114808-07-08 14:38 J -40212010.02 -40212009.89 -40212009.73 0.0298 0.0239
 Uranus -114779-08-15 15:36 J -40201380.06 -40201379.85 -40201379.63 0.0144 0.0083
 Jupiter -114778-02-10 15:50 J -40201200.91 -40201200.84 -40201200.76 0.0517 0.0489
 Mars -114778-07-07 04:48 J -40201054.47 -40201054.30 -40201054.12 0.1661 0.0644
 Saturn -114778-07-16 08:38 J -40201045.29 -40201045.14 -40201044.97 0.0297 0.0211
 Uranus -114778-08-20 12:00 J -40201010.22 -40201010.00 -40201009.76 0.0145 0.0044

Jupiter -114766-02-15 09:36 J -40196813.33 -40196813.10 -40196812.87 0.0518 0.0007
 Saturn -114762-01-19 07:12 J -40195379.45 -40195379.20 -40195378.95 0.0264 0.0027
 Jupiter -114754-02-20 17:17 J -40192424.89 -40192424.78 -40192424.67 0.0519 0.0452
 Saturn -114749-07-09 02:24 J -40190459.57 -40190459.40 -40190459.20 0.0298 0.0188
 Jupiter -114749-08-03 20:53 J -40190433.82 -40190433.63 -40190433.44 0.0508 0.0270
 Mars -114739-01-09 15:22 J -40186988.06 -40186987.86 -40186987.67 0.1854 0.0315
 Uranus -114739-02-25 04:48 J -40186941.54 -40186941.30 -40186941.04 0.0135 0.0048
 Neptune -114738-01-10 21:36 J -40186621.65 -40186621.60 -40186621.51 0.0089 0.0086
 Uranus -114738-03-01 15:36 J -40186572.07 -40186571.85 -40186571.61 0.0134 0.0050
 Neptune -114737-01-13 20:53 J -40186253.86 -40186253.63 -40186253.40 0.0089 0.0046
 Jupiter -114737-08-08 17:17 J -40186046.00 -40186045.78 -40186045.56 0.0507 0.0148
 Neptune -114736-01-15 05:02 J -40185886.53 -40185886.29 -40185886.03 0.0089 0.0024
 Neptune -114735-01-18 02:53 J -40185518.64 -40185518.38 -40185518.10 0.0089 0.0015
 Neptune -114734-01-20 12:29 J -40185151.19 -40185150.98 -40185150.73 0.0089 0.0040
 Saturn -114733-01-13 18:29 J -40184792.78 -40184792.73 -40184792.68 0.0263 0.0257
 Neptune -114733-01-23 06:58 J -40184783.34 -40184783.21 -40184783.08 0.0089 0.0077
 Saturn -114719-07-17 00:43 J -40179494.58 -40179494.47 -40179494.35 0.0297 0.0258
 Pluto -114717-12-23 21:07 J -40178603.81 -40178603.62 -40178603.38 0.0063 0.0038
 Pluto -114716-12-25 04:48 J -40178237.52 -40178237.30 -40178237.09 0.0064 0.0038
 Saturn -114703-01-20 00:29 J -40173828.73 -40173828.48 -40173828.22 0.0264 0.0073
 Uranus -114695-08-15 19:55 J -40170698.88 -40170698.67 -40170698.45 0.0144 0.0080
 Uranus -114694-08-20 19:12 J -40170328.93 -40170328.70 -40170328.47 0.0145 0.0047
 Saturn -114690-07-10 21:50 J -40168908.79 -40168908.59 -40168908.39 0.0298 0.0138
 Jupiter -114683-02-14 22:19 J -40166497.80 -40166497.57 -40166497.33 0.0518 0.0062
 Saturn -114674-01-14 20:24 J -40163241.79 -40163241.65 -40163241.49 0.0263 0.0208
 Jupiter -114671-02-19 16:48 J -40162109.95 -40162109.80 -40162109.64 0.0520 0.0391
 Jupiter -114666-08-04 16:34 J -40160117.99 -40160117.81 -40160117.62 0.0508 0.0309
 Neptune -114656-07-05 20:24 J -40156494.75 -40156494.65 -40156494.52 0.0088 0.0079
 Uranus -114655-02-25 12:43 J -40156260.21 -40156259.97 -40156259.72 0.0135 0.0048
 Neptune -114655-07-08 08:10 J -40156127.34 -40156127.16 -40156126.97 0.0088 0.0056

Uranus -114654-03-02 01:26 J -40155890.64 -40155890.44 -40155890.21 0.0134 0.0063
 Neptune -114654-07-10 10:19 J -40155760.31 -40155760.07 -40155759.81 0.0088 0.0021
 Jupiter -114654-08-08 20:38 J -40155730.87 -40155730.64 -40155730.41 0.0507 0.0090
 Neptune -114653-07-12 00:58 J -40155392.71 -40155392.46 -40155392.21 0.0088 0.0003
 Mars -114652-07-03 12:29 J -40155036.08 -40155035.98 -40155035.88 0.1657 0.1354
 Neptune -114652-07-14 02:10 J -40155025.62 -40155025.41 -40155025.17 0.0089 0.0037
 Neptune -114651-07-16 16:05 J -40154658.00 -40154657.83 -40154657.63 0.0089 0.0061
 Saturn -114644-01-20 19:12 J -40152277.92 -40152277.70 -40152277.47 0.0265 0.0124
 Jupiter -114642-08-13 13:26 J -40151342.98 -40151342.94 -40151342.87 0.0506 0.0490
 Saturn -114631-07-11 22:05 J -40147357.80 -40147357.58 -40147357.35 0.0298 0.0081
 Pluto -114627-06-22 14:10 J -40145916.15 -40145915.91 -40145915.65 0.0081 0.0010
 Saturn -114615-01-16 00:43 J -40141690.67 -40141690.47 -40141690.25 0.0263 0.0152
 Uranus -114611-08-15 23:46 J -40140017.70 -40140017.51 -40140017.30 0.0144 0.0090
 Uranus -114610-08-21 01:26 J -40139647.67 -40139647.44 -40139647.20 0.0145 0.0044
 Jupiter -114600-02-14 00:43 J -40136182.70 -40136182.47 -40136182.23 0.0518 0.0113
 Jupiter -114588-02-19 07:55 J -40131794.34 -40131794.17 -40131793.99 0.0519 0.0332
 Saturn -114585-01-23 00:29 J -40130726.65 -40130726.48 -40130726.31 0.0265 0.0186
 Jupiter -114583-08-03 18:29 J -40129802.88 -40129802.73 -40129802.56 0.0509 0.0370
 Neptune -114573-01-12 21:36 J -40126353.75 -40126353.60 -40126353.39 0.0089 0.0065
 Mars -114573-07-05 07:55 J -40126179.34 -40126179.17 -40126179.00 0.1658 0.0075
 Neptune -114572-01-14 17:31 J -40125986.01 -40125985.77 -40125985.50 0.0089 0.0031
 Saturn -114572-07-12 20:38 J -40125806.88 -40125806.64 -40125806.39 0.0298 0.0016
 Neptune -114571-01-17 07:41 J -40125618.43 -40125618.18 -40125617.92 0.0089 0.0002
 Uranus -114571-02-25 19:12 J -40125578.95 -40125578.70 -40125578.46 0.0135 0.0046
 Jupiter -114571-08-08 14:10 J -40125415.13 -40125414.91 -40125414.68 0.0507 0.0040
 Neptune -114570-01-19 21:50 J -40125250.83 -40125250.59 -40125250.31 0.0089 0.0032
 Uranus -114570-03-02 10:19 J -40125209.29 -40125209.07 -40125208.83 0.0134 0.0056
 Neptune -114569-01-22 15:50 J -40124883.01 -40124882.84 -40124882.63 0.0089 0.0060
 Jupiter -114559-08-12 23:02 J -40121027.66 -40121027.54 -40121027.43 0.0506 0.0443
 Saturn -114556-01-17 00:58 J -40120139.70 -40120139.46 -40120139.20 0.0263 0.0087

Uranus -114527-08-16 05:31 J -40109336.48 -40109336.27 -40109336.05 0.0144 0.0078
 Saturn -114526-01-24 10:05 J -40109175.14 -40109175.08 -40109175.01 0.0265 0.0255
 Uranus -114526-08-21 08:53 J -40108966.36 -40108966.13 -40108965.89 0.0144 0.0042
 Jupiter -114517-02-14 11:31 J -40105867.24 -40105867.02 -40105866.81 0.0518 0.0192
 Saturn -114513-07-13 21:07 J -40104255.85 -40104255.62 -40104255.38 0.0298 0.0062
 Jupiter -114505-02-19 00:14 J -40101479.71 -40101479.49 -40101479.27 0.0519 0.0230
 Jupiter -114500-08-03 12:00 J -40099487.11 -40099487.00 -40099486.86 0.0509 0.0421
 Saturn -114497-01-19 03:50 J -40098588.60 -40098588.34 -40098588.08 0.0264 0.0015
 Mars -114494-07-08 03:36 J -40097322.50 -40097322.35 -40097322.20 0.1659 0.0854
 Neptune -114491-07-07 16:05 J -40096227.01 -40096226.83 -40096226.66 0.0088 0.0062
 Neptune -114490-07-10 06:00 J -40095859.46 -40095859.25 -40095859.01 0.0088 0.0039
 Neptune -114489-07-11 08:53 J -40095492.38 -40095492.13 -40095491.89 0.0088 0.0005
 Neptune -114488-07-13 20:38 J -40095124.89 -40095124.64 -40095124.38 0.0088 0.0019
 Jupiter -114488-08-07 16:19 J -40095100.06 -40095099.82 -40095099.59 0.0507 0.0034
 Uranus -114487-02-26 01:12 J -40094897.69 -40094897.45 -40094897.20 0.0135 0.0042
 Neptune -114487-07-16 03:07 J -40094757.54 -40094757.37 -40094757.15 0.0088 0.0054
 Uranus -114486-03-02 18:00 J -40094527.96 -40094527.75 -40094527.51 0.0134 0.0062
 Neptune -114486-07-18 09:50 J -40094390.19 -40094390.09 -40094389.95 0.0089 0.0078
 Jupiter -114476-08-12 05:02 J -40090712.44 -40090712.29 -40090712.13 0.0506 0.0367
 Pluto -114468-12-26 06:43 J -40087654.49 -40087654.22 -40087653.93 0.0064 0.0004
 Mars -114455-01-08 02:10 J -40083258.48 -40083258.41 -40083258.33 0.1857 0.1759
 Saturn -114454-07-16 06:00 J -40082704.44 -40082704.25 -40082704.04 0.0297 0.0154
 Uranus -114443-08-16 15:22 J -40078655.05 -40078654.86 -40078654.65 0.0144 0.0087
 Uranus -114442-08-21 19:55 J -40078284.90 -40078284.67 -40078284.43 0.0144 0.0052
 Saturn -114438-01-20 16:05 J -40077037.07 -40077036.83 -40077036.59 0.0264 0.0067
 Jupiter -114434-02-13 00:00 J -40075552.69 -40075552.50 -40075552.30 0.0517 0.0298
 Saturn -114425-07-09 18:43 J -40072117.88 -40072117.72 -40072117.55 0.0299 0.0214
 Jupiter -114422-02-18 07:55 J -40071164.39 -40071164.17 -40071163.96 0.0519 0.0153
 Neptune -114409-01-12 05:02 J -40066453.38 -40066453.29 -40066453.15 0.0089 0.0081
 Saturn -114409-01-15 17:31 J -40066449.94 -40066449.77 -40066449.61 0.0263 0.0203

Neptune -114408-01-14 00:43 J -40066085.68 -40066085.47 -40066085.23 0.0089 0.0042
 Neptune -114407-01-16 11:02 J -40065718.29 -40065718.04 -40065717.76 0.0089 0.0019
 Neptune -114406-01-19 09:22 J -40065350.35 -40065350.11 -40065349.84 0.0089 0.0022
 Neptune -114405-01-21 17:31 J -40064982.99 -40064982.77 -40064982.53 0.0089 0.0044
 Jupiter -114405-08-06 21:36 J -40064784.82 -40064784.60 -40064784.38 0.0508 0.0117
 Neptune -114404-01-23 16:05 J -40064614.91 -40064614.83 -40064614.75 0.0089 0.0084
 Uranus -114403-02-26 10:19 J -40064216.30 -40064216.07 -40064215.83 0.0135 0.0046
 Uranus -114402-03-03 03:22 J -40063846.58 -40063846.36 -40063846.13 0.0134 0.0064
 Saturn -114395-07-18 00:43 J -40061152.58 -40061152.47 -40061152.35 0.0297 0.0255
 Jupiter -114393-08-11 07:26 J -40060397.38 -40060397.19 -40060396.99 0.0507 0.0287
 Saturn -114379-01-22 08:24 J -40055485.34 -40055485.15 -40055484.94 0.0265 0.0156
 Pluto -114379-06-23 06:43 J -40055333.38 -40055333.22 -40055333.02 0.0081 0.0054
 Pluto -114378-06-25 05:02 J -40054966.32 -40054966.29 -40054966.18 0.0080 0.0078
 Mars -114376-01-12 09:36 J -40054399.23 -40054399.10 -40054398.98 0.1855 0.1536
 Mars -114368-07-04 10:05 J -40051304.21 -40051304.08 -40051303.94 0.1654 0.1179
 Saturn -114366-07-12 06:43 J -40050566.45 -40050566.22 -40050565.99 0.0298 0.0106
 Uranus -114359-08-17 02:10 J -40047973.61 -40047973.41 -40047973.18 0.0144 0.0067
 Uranus -114358-08-22 06:43 J -40047603.46 -40047603.22 -40047602.98 0.0144 0.0047
 Jupiter -114351-02-12 07:41 J -40045237.33 -40045237.18 -40045237.02 0.0517 0.0388
 Saturn -114350-01-17 00:58 J -40044898.69 -40044898.46 -40044898.23 0.0264 0.0119
 Jupiter -114339-02-17 00:58 J -40040849.71 -40040849.46 -40040849.22 0.0518 0.0051
 Jupiter -114327-02-21 20:53 J -40036461.70 -40036461.63 -40036461.55 0.0519 0.0489
 Neptune -114327-07-07 10:48 J -40036326.18 -40036326.05 -40036325.89 0.0088 0.0073
 Neptune -114326-07-09 16:19 J -40035958.99 -40035958.82 -40035958.61 0.0088 0.0054
 Neptune -114325-07-10 23:02 J -40035591.78 -40035591.54 -40035591.28 0.0088 0.0016
 Neptune -114324-07-13 10:48 J -40035224.29 -40035224.05 -40035223.81 0.0088 0.0005
 Neptune -114323-07-15 12:58 J -40034857.16 -40034856.96 -40034856.72 0.0088 0.0044
 Neptune -114322-07-18 04:05 J -40034489.50 -40034489.33 -40034489.15 0.0088 0.0063
 Jupiter -114322-08-06 21:50 J -40034469.81 -40034469.59 -40034469.37 0.0509 0.0195
 Saturn -114320-01-23 20:10 J -40033933.75 -40033933.66 -40033933.56 0.0265 0.0246

Uranus -114319-02-26 22:05 J -40033534.83 -40033534.58 -40033534.34 0.0135 0.0031
 Uranus -114318-03-03 13:12 J -40033165.18 -40033164.95 -40033164.72 0.0134 0.0064
 Jupiter -114310-08-11 08:24 J -40030082.35 -40030082.15 -40030081.94 0.0507 0.0192
 Saturn -114307-07-14 01:41 J -40029014.66 -40029014.43 -40029014.19 0.0298 0.0012
 Saturn -114291-01-18 15:07 J -40023347.11 -40023346.87 -40023346.62 0.0264 0.0029
 Mars -114289-07-06 14:53 J -40022447.06 -40022446.88 -40022446.69 0.1655 0.0463
 Uranus -114275-08-17 15:36 J -40017292.04 -40017291.85 -40017291.63 0.0144 0.0076
 Uranus -114274-08-22 17:46 J -40016921.98 -40016921.76 -40016921.52 0.0144 0.0066
 Jupiter -114268-02-10 17:17 J -40014922.80 -40014922.78 -40014922.75 0.0516 0.0513
 Jupiter -114256-02-15 21:22 J -40010534.83 -40010534.61 -40010534.38 0.0517 0.0068
 Saturn -114248-07-16 02:24 J -40007462.61 -40007462.40 -40007462.19 0.0297 0.0129
 Neptune -114244-01-13 00:58 J -40006185.66 -40006185.46 -40006185.25 0.0089 0.0056
 Jupiter -114244-02-20 21:22 J -40006146.77 -40006146.61 -40006146.44 0.0519 0.0388
 Neptune -114243-01-15 23:02 J -40005817.78 -40005817.54 -40005817.27 0.0089 0.0032
 Neptune -114242-01-18 09:50 J -40005450.35 -40005450.09 -40005449.83 0.0089 0.0007
 Neptune -114241-01-21 04:19 J -40005082.57 -40005082.32 -40005082.06 0.0089 0.0031
 Neptune -114240-01-22 17:46 J -40004714.90 -40004714.76 -40004714.58 0.0089 0.0069
 Jupiter -114239-08-05 23:46 J -40004154.69 -40004154.51 -40004154.33 0.0509 0.0294
 Uranus -114236-02-23 01:41 J -40003222.47 -40003222.43 -40003222.33 0.0135 0.0130
 Uranus -114235-02-27 11:46 J -40002853.24 -40002853.01 -40002852.76 0.0135 0.0038
 Uranus -114234-03-04 00:14 J -40002483.70 -40002483.49 -40002483.27 0.0134 0.0078
 Saturn -114232-01-20 07:41 J -40001795.41 -40001795.18 -40001794.93 0.0264 0.0059
 Jupiter -114227-08-10 06:58 J -39999767.45 -39999767.21 -39999766.98 0.0508 0.0095
 Pluto -114220-12-27 05:46 J -39997071.39 -39997071.26 -39997071.11 0.0063 0.0054
 Saturn -114219-07-10 07:41 J -39996876.31 -39996876.18 -39996876.02 0.0299 0.0239
 Pluto -114219-12-28 12:58 J -39996705.20 -39996704.96 -39996704.71 0.0064 0.0026
 Mars -114210-07-09 19:55 J -39993589.77 -39993589.67 -39993589.57 0.1657 0.1384
 Saturn -114203-01-15 04:34 J -39991208.47 -39991208.31 -39991208.14 0.0264 0.0205
 Uranus -114191-08-18 01:41 J -39986610.64 -39986610.43 -39986610.20 0.0144 0.0059
 Uranus -114190-08-23 02:10 J -39986240.65 -39986240.41 -39986240.17 0.0145 0.0054

Saturn -114189-07-17 22:19 J -39985910.70 -39985910.57 -39985910.43 0.0297 0.0242
 Saturn -114173-01-22 18:43 J -39980243.92 -39980243.72 -39980243.49 0.0264 0.0140
 Jupiter -114173-02-15 21:07 J -39980219.85 -39980219.62 -39980219.38 0.0518 0.0168
 Mars -114163-07-04 01:41 J -39976428.49 -39976428.43 -39976428.37 0.1652 0.1549
 Neptune -114162-07-09 04:05 J -39976058.49 -39976058.33 -39976058.12 0.0088 0.0062
 Jupiter -114161-02-20 17:31 J -39975831.95 -39975831.77 -39975831.58 0.0519 0.0295
 Neptune -114161-07-10 16:19 J -39975691.03 -39975690.82 -39975690.58 0.0088 0.0032
 Saturn -114160-07-11 22:19 J -39975324.78 -39975324.57 -39975324.35 0.0299 0.0126
 Neptune -114160-07-12 18:00 J -39975324.00 -39975323.75 -39975323.49 0.0088 0.0005
 Neptune -114159-07-15 08:24 J -39974956.38 -39974956.15 -39974955.90 0.0088 0.0025
 Neptune -114158-07-17 09:36 J -39974589.27 -39974589.10 -39974588.89 0.0088 0.0055
 Neptune -114157-07-18 23:31 J -39974221.60 -39974221.52 -39974221.44 0.0088 0.0084
 Jupiter -114156-08-05 00:00 J -39973839.64 -39973839.50 -39973839.35 0.0509 0.0397
 Uranus -114151-02-27 23:17 J -39972171.77 -39972171.53 -39972171.28 0.0135 0.0019
 Uranus -114150-03-04 12:29 J -39971802.18 -39971801.98 -39971801.75 0.0134 0.0076
 Saturn -114144-01-16 12:00 J -39969657.21 -39969657.00 -39969656.76 0.0264 0.0128
 Jupiter -114144-08-09 07:55 J -39969452.39 -39969452.17 -39969451.94 0.0508 0.0008
 Jupiter -114132-08-13 23:46 J -39965064.58 -39965064.51 -39965064.42 0.0507 0.0472
 Pluto -114130-06-26 04:19 J -39964383.57 -39964383.32 -39964383.07 0.0080 0.0001
 Saturn -114114-01-24 00:29 J -39958692.63 -39958692.48 -39958692.32 0.0264 0.0214
 Uranus -114107-08-18 08:53 J -39955929.34 -39955929.13 -39955928.92 0.0144 0.0072
 Uranus -114106-08-23 11:02 J -39955559.26 -39955559.04 -39955558.80 0.0145 0.0067
 Saturn -114101-07-13 11:02 J -39953773.27 -39953773.04 -39953772.81 0.0299 0.0018
 Mars -114092-01-10 16:05 J -39950670.04 -39950669.83 -39950669.62 0.1859 0.0221
 Jupiter -114090-02-14 16:19 J -39949905.01 -39949904.82 -39949904.62 0.0517 0.0286
 Saturn -114085-01-18 20:24 J -39948105.89 -39948105.65 -39948105.41 0.0264 0.0054
 Mars -114084-07-05 16:19 J -39947571.98 -39947571.82 -39947571.66 0.1653 0.0657
 Neptune -114080-01-12 11:31 J -39946285.11 -39946285.02 -39946284.87 0.0089 0.0080
 Neptune -114079-01-14 21:07 J -39945917.85 -39945917.62 -39945917.38 0.0089 0.0039
 Neptune -114078-01-17 19:26 J -39945549.94 -39945549.69 -39945549.41 0.0089 0.0017

Jupiter -114078-02-19 23:31 J -39945516.73 -39945516.52 -39945516.30 0.0518 0.0216
 Neptune -114077-01-20 06:00 J -39945182.48 -39945182.25 -39945181.98 0.0089 0.0025
 Neptune -114076-01-22 00:58 J -39944814.69 -39944814.46 -39944814.22 0.0089 0.0047
 Neptune -114075-01-24 14:24 J -39944446.91 -39944446.90 -39944446.84 0.0089 0.0088
 Jupiter -114073-08-04 00:29 J -39943524.51 -39943524.48 -39943524.43 0.0509 0.0500
 Uranus -114068-02-24 03:07 J -39941859.46 -39941859.37 -39941859.23 0.0135 0.0121
 Uranus -114067-02-28 09:50 J -39941490.33 -39941490.09 -39941489.84 0.0135 0.0023
 Uranus -114066-03-05 01:26 J -39941120.63 -39941120.44 -39941120.22 0.0134 0.0083
 Jupiter -114061-08-08 19:26 J -39939136.91 -39939136.69 -39939136.47 0.0508 0.0048
 Jupiter -114049-08-12 23:02 J -39934749.66 -39934749.54 -39934749.39 0.0507 0.0414
 Saturn -114042-07-15 19:12 J -39932221.91 -39932221.70 -39932221.47 0.0299 0.0073
 Saturn -114026-01-20 02:38 J -39926554.64 -39926554.39 -39926554.15 0.0264 0.0014
 Uranus -114023-08-18 13:41 J -39925248.14 -39925247.93 -39925247.69 0.0144 0.0060
 Uranus -114022-08-23 18:00 J -39924877.97 -39924877.75 -39924877.51 0.0145 0.0060
 Jupiter -114007-02-14 02:24 J -39919589.55 -39919589.40 -39919589.22 0.0517 0.0363
 Mars -114005-07-07 18:43 J -39918714.90 -39918714.72 -39918714.55 0.1653 0.0698

114TH MILLENNIUM BCE

This is a list of transits of Moon in the 114th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Neptune -113998-07-08 17:17 J -39916157.89 -39916157.78 -39916157.62 0.0088 0.0074

Saturn -113997-01-14 21:07 J -39915967.67 -39915967.62 -39915967.55 0.0262 0.0255
 Neptune -113997-07-10 01:41 J -39915790.65 -39915790.43 -39915790.21 0.0088 0.0047
 Neptune -113996-07-12 11:31 J -39915423.25 -39915423.02 -39915422.78 0.0088 0.0015
 Jupiter -113995-02-19 00:00 J -39915201.73 -39915201.50 -39915201.27 0.0519 0.0172
 Neptune -113995-07-14 14:38 J -39915056.14 -39915055.89 -39915055.63 0.0088 0.0011
 Neptune -113994-07-17 04:05 J -39914688.53 -39914688.33 -39914688.10 0.0088 0.0044
 Neptune -113993-07-18 05:02 J -39914321.42 -39914321.29 -39914321.11 0.0088 0.0069
 Uranus -113984-02-24 13:26 J -39911178.02 -39911177.94 -39911177.81 0.0135 0.0124
 Uranus -113983-02-28 18:43 J -39910808.97 -39910808.72 -39910808.46 0.0135 0.0018
 Saturn -113983-07-16 22:34 J -39910670.75 -39910670.56 -39910670.35 0.0299 0.0147
 Uranus -113982-03-05 12:14 J -39910439.17 -39910438.99 -39910438.80 0.0134 0.0093
 Jupiter -113978-08-08 23:17 J -39908821.76 -39908821.53 -39908821.29 0.0508 0.0089
 Pluto -113971-12-29 16:05 J -39906122.07 -39906121.83 -39906121.56 0.0064 0.0014
 Pluto -113970-12-31 01:12 J -39905755.56 -39905755.45 -39905755.27 0.0064 0.0054
 Saturn -113967-01-21 04:34 J -39905003.54 -39905003.31 -39905003.06 0.0263 0.0075
 Jupiter -113966-08-13 09:50 J -39904434.25 -39904434.09 -39904433.94 0.0507 0.0361
 Saturn -113954-07-10 20:10 J -39900084.80 -39900084.66 -39900084.50 0.0300 0.0236
 Uranus -113939-08-19 00:00 J -39894566.71 -39894566.50 -39894566.26 0.0144 0.0063
 Saturn -113938-01-15 17:46 J -39894416.92 -39894416.76 -39894416.58 0.0262 0.0196
 Uranus -113938-08-24 04:05 J -39894196.55 -39894196.33 -39894196.10 0.0144 0.0063
 Jupiter -113924-02-13 09:07 J -39889274.28 -39889274.12 -39889273.96 0.0517 0.0389
 Saturn -113924-07-17 20:38 J -39889119.80 -39889119.64 -39889119.46 0.0299 0.0210
 Neptune -113916-01-11 07:12 J -39886385.22 -39886385.20 -39886385.14 0.0089 0.0088
 Neptune -113915-01-14 06:14 J -39886017.41 -39886017.24 -39886017.04 0.0089 0.0063
 Neptune -113914-01-16 15:07 J -39885650.12 -39885649.87 -39885649.60 0.0089 0.0023
 Neptune -113913-01-19 14:24 J -39885282.17 -39885281.90 -39885281.63 0.0089 0.0001
 Neptune -113912-01-20 23:46 J -39884914.74 -39884914.51 -39884914.28 0.0089 0.0040
 Jupiter -113912-02-18 06:58 J -39884886.43 -39884886.21 -39884885.99 0.0518 0.0131
 Neptune -113911-01-23 20:24 J -39884546.82 -39884546.65 -39884546.43 0.0089 0.0063
 Saturn -113908-01-22 02:38 J -39883452.61 -39883452.39 -39883452.17 0.0263 0.0132

Uranus -113900-02-24 23:46 J -39880496.61 -39880496.51 -39880496.37 0.0135 0.0120
 Uranus -113899-03-01 05:02 J -39880127.55 -39880127.29 -39880127.03 0.0135 0.0007
 Uranus -113898-03-05 21:50 J -39879757.76 -39879757.59 -39879757.38 0.0134 0.0087
 Saturn -113895-07-11 13:55 J -39878534.10 -39878533.92 -39878533.73 0.0300 0.0182
 Jupiter -113895-08-08 09:07 J -39878506.34 -39878506.12 -39878505.90 0.0508 0.0117
 Jupiter -113883-08-13 04:34 J -39874118.49 -39874118.31 -39874118.12 0.0507 0.0303
 Pluto -113882-06-26 22:34 J -39873800.69 -39873800.56 -39873800.42 0.0081 0.0068
 Pluto -113881-06-28 00:14 J -39873433.54 -39873433.49 -39873433.39 0.0080 0.0076
 Saturn -113879-01-16 14:53 J -39872866.09 -39872865.88 -39872865.66 0.0262 0.0140
 Mars -113879-07-05 07:26 J -39872696.26 -39872696.19 -39872696.11 0.1651 0.1461
 Saturn -113865-07-18 11:31 J -39867569.13 -39867569.02 -39867568.89 0.0299 0.0259
 Uranus -113855-08-19 12:00 J -39863885.22 -39863885.00 -39863884.76 0.0144 0.0057
 Uranus -113854-08-24 15:22 J -39863515.07 -39863514.86 -39863514.65 0.0145 0.0078
 Saturn -113849-01-23 20:24 J -39861901.84 -39861901.65 -39861901.46 0.0263 0.0183
 Jupiter -113841-02-13 13:41 J -39858959.06 -39858958.93 -39858958.80 0.0516 0.0421
 Saturn -113836-07-12 09:36 J -39856983.30 -39856983.10 -39856982.89 0.0300 0.0131
 Neptune -113833-07-09 11:17 J -39855890.19 -39855890.03 -39855889.82 0.0088 0.0057
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 Jupiter -113829-02-18 18:29 J -39854570.96 -39854570.73 -39854570.49 0.0518 0.0057
 Neptune -113829-07-17 22:48 J -39854420.71 -39854420.55 -39854420.36 0.0088 0.0061
 Neptune -113828-07-20 00:00 J -39854053.55 -39854053.50 -39854053.38 0.0088 0.0084
 Saturn -113820-01-17 14:24 J -39851315.13 -39851314.90 -39851314.67 0.0262 0.0087
 Jupiter -113817-02-23 15:07 J -39850182.92 -39850182.87 -39850182.81 0.0520 0.0504
 Uranus -113816-02-25 12:00 J -39849815.15 -39849815.00 -39849814.83 0.0135 0.0105
 Uranus -113815-03-01 18:29 J -39849445.99 -39849445.73 -39849445.47 0.0135 0.0011
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Mars -113800-07-06 22:48 J -39843839.73 -39843839.55 -39843839.38 0.1651 0.0077
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 Saturn -113790-01-24 13:26 J -39840351.06 -39840350.94 -39840350.82 0.0263 0.0234
 Saturn -113777-07-13 05:02 J -39835432.51 -39835432.29 -39835432.07 0.0300 0.0082
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 Uranus -113770-08-25 04:05 J -39832833.54 -39832833.33 -39832833.12 0.0145 0.0074
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 Saturn -113718-07-15 01:26 J -39813881.68 -39813881.44 -39813881.21 0.0299 0.0027
 Jupiter -113717-08-11 23:17 J -39813487.74 -39813487.53 -39813487.32 0.0507 0.0174
 Saturn -113702-01-20 15:22 J -39808213.12 -39808212.86 -39808212.61 0.0262 0.0027
 Uranus -113687-08-20 18:29 J -39802521.98 -39802521.73 -39802521.49 0.0144 0.0045
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 Saturn -113673-01-15 02:24 J -39797626.48 -39797626.40 -39797626.29 0.0261 0.0242
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Neptune -113668-07-11 04:48 J -39795622.50 -39795622.30 -39795622.07 0.0088 0.0041
 Neptune -113667-07-13 17:02 J -39795255.04 -39795254.79 -39795254.53 0.0088 0.0019
 Neptune -113666-07-15 21:36 J -39794887.82 -39794887.60 -39794887.35 0.0088 0.0018
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 Jupiter -113651-02-22 08:38 J -39789552.29 -39789552.14 -39789551.97 0.0519 0.0381
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 Uranus -113646-03-07 12:00 J -39787713.10 -39787713.00 -39787712.86 0.0134 0.0116
 Jupiter -113646-08-07 23:17 J -39787559.71 -39787559.53 -39787559.35 0.0509 0.0302
 Saturn -113643-01-21 15:07 J -39786662.11 -39786661.87 -39786661.61 0.0262 0.0092
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 Pluto -113633-06-28 19:55 J -39782850.92 -39782850.67 -39782850.41 0.0080 0.0002
 Saturn -113614-01-16 05:17 J -39776075.46 -39776075.28 -39776075.09 0.0262 0.0177
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 Saturn -113600-07-16 22:19 J -39770779.79 -39770779.57 -39770779.34 0.0299 0.0109
 Mars -113595-07-06 12:14 J -39768964.14 -39768963.99 -39768963.83 0.1649 0.0717
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 Neptune -113582-01-24 08:24 J -39764379.29 -39764379.15 -39764378.96 0.0089 0.0069
 Jupiter -113580-02-16 12:00 J -39763625.21 -39763625.00 -39763624.78 0.0517 0.0197
 Saturn -113571-07-11 01:12 J -39760193.55 -39760193.45 -39760193.36 0.0300 0.0271
 Jupiter -113568-02-21 09:07 J -39759237.30 -39759237.12 -39759236.93 0.0519 0.0332
 Uranus -113564-02-27 05:17 J -39757770.48 -39757770.28 -39757770.09 0.0135 0.0086

Uranus -113563-03-03 18:58 J -39757400.97 -39757400.71 -39757400.45 0.0135 0.0022
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 Uranus -113562-03-08 01:55 J -39757031.47 -39757031.42 -39757031.34 0.0134 0.0129
 Saturn -113555-01-17 14:53 J -39754524.10 -39754523.88 -39754523.65 0.0262 0.0106
 Jupiter -113551-08-11 15:07 J -39752857.11 -39752856.87 -39752856.64 0.0508 0.0068
 Saturn -113541-07-18 02:38 J -39749228.55 -39749228.39 -39749228.20 0.0299 0.0202
 Saturn -113525-01-24 21:22 J -39743559.71 -39743559.61 -39743559.48 0.0263 0.0236
 Uranus -113519-08-21 15:50 J -39741159.08 -39741158.84 -39741158.57 0.0144 0.0036
 Uranus -113518-08-26 12:29 J -39740789.14 -39740788.98 -39740788.79 0.0145 0.0100
 Mars -113516-07-08 07:12 J -39740107.37 -39740107.20 -39740107.03 0.1650 0.0337
 Saturn -113512-07-12 15:36 J -39738642.04 -39738641.85 -39738641.65 0.0300 0.0166
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 Neptune -113503-07-13 00:14 J -39735354.72 -39735354.49 -39735354.26 0.0088 0.0028
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 Jupiter -113497-02-16 08:10 J -39733310.36 -39733310.16 -39733309.95 0.0517 0.0279
 Saturn -113496-01-19 03:36 J -39732972.60 -39732972.35 -39732972.09 0.0262 0.0028
 Jupiter -113485-02-21 13:55 J -39728922.13 -39728921.92 -39728921.72 0.0518 0.0234
 Uranus -113480-02-27 21:07 J -39727088.83 -39727088.62 -39727088.40 0.0135 0.0069
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 Uranus -113478-03-08 18:14 J -39726349.76 -39726349.74 -39726349.68 0.0134 0.0133
 Pluto -113473-01-02 00:58 J -39724589.69 -39724589.46 -39724589.21 0.0064 0.0032
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Saturn -113437-01-21 10:34 J -39711421.31 -39711421.06 -39711420.80 0.0263 0.0050
 Mars -113437-07-10 04:19 J -39711250.43 -39711250.32 -39711250.21 0.1650 0.1305
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 Jupiter -113414-02-15 08:10 J -39702995.30 -39702995.16 -39702995.01 0.0516 0.0398
 Saturn -113408-01-15 16:48 J -39700833.95 -39700833.80 -39700833.63 0.0262 0.0197
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 Saturn -113394-07-16 19:12 J -39695538.93 -39695538.70 -39695538.47 0.0299 0.0060
 Mars -113390-07-05 15:07 J -39694088.92 -39694088.87 -39694088.82 0.1647 0.1583
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 Jupiter -113385-08-09 21:22 J -39692226.83 -39692226.61 -39692226.38 0.0509 0.0112
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 Saturn -113378-01-22 19:55 J -39689869.87 -39689869.67 -39689869.44 0.0263 0.0130
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Neptune -113337-07-15 21:07 J -39674719.86 -39674719.62 -39674719.38 0.0088 0.0017
 Neptune -113336-07-18 10:34 J -39674352.29 -39674352.06 -39674351.82 0.0088 0.0037
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 Saturn -113306-07-13 02:53 J -39663400.56 -39663400.38 -39663400.18 0.0300 0.0186
 Jupiter -113302-08-10 02:24 J -39661911.60 -39661911.40 -39661911.19 0.0510 0.0209
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 Mars -113232-07-09 22:05 J -39636374.73 -39636374.58 -39636374.43 0.1648 0.1029
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 Uranus -113228-03-01 14:10 J -39635044.13 -39635043.91 -39635043.66 0.0136 0.0059
 Uranus -113227-03-05 19:26 J -39634674.90 -39634674.69 -39634674.45 0.0135 0.0060

Pluto -113224-01-03 06:58 J -39633640.47 -39633640.21 -39633639.94 0.0064 0.0004
 Jupiter -113224-02-23 00:43 J -39633589.61 -39633589.47 -39633589.33 0.0518 0.0406
 Jupiter -113219-08-09 00:00 J -39631596.69 -39631596.50 -39631596.31 0.0510 0.0301
 Jupiter -113207-08-13 12:58 J -39627209.16 -39627208.96 -39627208.75 0.0508 0.0173
 Saturn -113202-01-16 03:50 J -39625592.45 -39625592.34 -39625592.19 0.0261 0.0225
 Saturn -113188-07-16 08:10 J -39620297.39 -39620297.16 -39620296.94 0.0300 0.0021
 Uranus -113184-08-19 06:43 J -39618802.37 -39618802.22 -39618802.07 0.0143 0.0115
 Uranus -113183-08-23 19:55 J -39618432.91 -39618432.67 -39618432.42 0.0144 0.0003
 Uranus -113182-08-28 22:48 J -39618062.63 -39618062.55 -39618062.45 0.0144 0.0135
 Neptune -113175-07-11 19:41 J -39615553.84 -39615553.68 -39615553.47 0.0088 0.0061
 Neptune -113174-07-13 22:19 J -39615186.77 -39615186.57 -39615186.33 0.0088 0.0037
 Neptune -113173-07-15 08:38 J -39614819.40 -39614819.14 -39614818.89 0.0088 0.0002
 Saturn -113172-01-22 08:24 J -39614628.36 -39614628.15 -39614627.91 0.0263 0.0104
 Neptune -113172-07-17 15:50 J -39614452.06 -39614451.84 -39614451.60 0.0088 0.0023
 Neptune -113171-07-19 21:07 J -39614084.81 -39614084.62 -39614084.42 0.0088 0.0058
 Neptune -113170-07-22 10:05 J -39613717.18 -39613717.08 -39613716.98 0.0088 0.0081
 Mars -113161-01-13 01:55 J -39610620.57 -39610620.42 -39610620.26 0.1866 0.1277
 Jupiter -113153-02-18 01:55 J -39607662.63 -39607662.42 -39607662.21 0.0517 0.0208
 Uranus -113144-03-02 06:14 J -39604362.49 -39604362.24 -39604361.98 0.0136 0.0035
 Saturn -113143-01-17 06:29 J -39604041.43 -39604041.23 -39604041.01 0.0261 0.0158
 Uranus -113143-03-06 12:29 J -39603993.20 -39603992.98 -39603992.74 0.0135 0.0056
 Jupiter -113141-02-23 01:12 J -39603274.64 -39603274.45 -39603274.26 0.0518 0.0326
 Pluto -113136-07-02 11:31 J -39601318.27 -39601318.02 -39601317.77 0.0080 0.0011
 Jupiter -113136-08-08 07:41 J -39601281.33 -39601281.18 -39601281.03 0.0510 0.0373
 Saturn -113129-07-17 19:55 J -39598745.88 -39598745.67 -39598745.45 0.0300 0.0107
 Jupiter -113124-08-12 17:46 J -39596893.99 -39596893.76 -39596893.53 0.0509 0.0097
 Saturn -113113-01-24 16:05 J -39593077.02 -39593076.83 -39593076.63 0.0263 0.0165
 Mars -113106-07-07 07:26 J -39590356.34 -39590356.19 -39590356.05 0.1646 0.0896
 Saturn -113100-07-11 19:12 J -39588159.81 -39588159.70 -39588159.59 0.0300 0.0263
 Uranus -113100-08-19 21:50 J -39588120.75 -39588120.59 -39588120.41 0.0143 0.0107

Uranus -113099-08-24 12:43 J -39587751.20 -39587750.97 -39587750.72 0.0144 0.0019
 Uranus -113098-08-29 14:53 J -39587380.97 -39587380.88 -39587380.76 0.0144 0.0131
 Neptune -113093-01-14 14:10 J -39585781.97 -39585781.91 -39585781.80 0.0089 0.0084
 Neptune -113092-01-15 23:31 J -39585414.74 -39585414.52 -39585414.29 0.0089 0.0048
 Neptune -113091-01-18 23:02 J -39585046.80 -39585046.54 -39585046.27 0.0089 0.0018
 Neptune -113090-01-21 08:10 J -39584679.41 -39584679.16 -39584678.90 0.0089 0.0016
 Neptune -113089-01-24 05:17 J -39584311.51 -39584311.28 -39584311.05 0.0089 0.0046
 Neptune -113088-01-25 16:19 J -39583943.92 -39583943.82 -39583943.68 0.0089 0.0078
 Saturn -113084-01-18 05:31 J -39582490.49 -39582490.27 -39582490.02 0.0261 0.0101
 Jupiter -113070-02-17 04:05 J -39577347.53 -39577347.33 -39577347.11 0.0516 0.0269
 Saturn -113070-07-19 21:50 J -39577194.79 -39577194.59 -39577194.39 0.0300 0.0176
 Uranus -113061-02-27 04:19 J -39574050.35 -39574050.32 -39574050.27 0.0136 0.0134
 Uranus -113060-03-02 21:50 J -39573680.83 -39573680.59 -39573680.32 0.0135 0.0037
 Uranus -113059-03-07 05:31 J -39573311.45 -39573311.27 -39573311.05 0.0135 0.0080
 Jupiter -113058-02-22 05:46 J -39572959.45 -39572959.26 -39572959.06 0.0517 0.0257
 Saturn -113054-01-25 14:53 J -39571526.01 -39571525.88 -39571525.73 0.0263 0.0221
 Jupiter -113053-08-07 15:07 J -39570965.99 -39570965.87 -39570965.75 0.0511 0.0433
 Saturn -113041-07-12 22:05 J -39566608.75 -39566608.58 -39566608.41 0.0300 0.0200
 Jupiter -113041-08-12 00:43 J -39566578.69 -39566578.47 -39566578.25 0.0509 0.0042
 Jupiter -113029-08-16 17:17 J -39562190.85 -39562190.78 -39562190.70 0.0507 0.0479
 Mars -113027-07-09 00:58 J -39561499.63 -39561499.46 -39561499.29 0.1647 0.0147
 Saturn -113025-01-20 08:38 J -39560939.39 -39560939.14 -39560938.90 0.0261 0.0045
 Uranus -113016-08-20 10:05 J -39557439.25 -39557439.08 -39557438.89 0.0143 0.0100
 Uranus -113015-08-25 02:38 J -39557069.63 -39557069.39 -39557069.15 0.0144 0.0017
 Neptune -113011-07-11 00:29 J -39555653.57 -39555653.48 -39555653.38 0.0088 0.0081
 Saturn -113011-07-20 15:07 J -39555644.01 -39555643.87 -39555643.71 0.0300 0.0231
 Neptune -113010-07-13 07:26 J -39555286.40 -39555286.19 -39555285.96 0.0088 0.0047
 Neptune -113009-07-14 17:46 J -39554918.99 -39554918.76 -39554918.52 0.0088 0.0023
 Neptune -113008-07-16 19:55 J -39554551.92 -39554551.67 -39554551.42 0.0088 0.0011
 Neptune -113007-07-19 09:50 J -39554184.31 -39554184.09 -39554183.86 0.0088 0.0035

Neptune -113006-07-21 10:19 J -39553817.19 -39553817.07 -39553816.89 0.0088 0.0071

113TH MILLENNIUM BCE

This is a list of transits of Moon in the 113th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-112987-02-16 12:29 J	-39547032.16	-39547031.98	-39547031.81	0.0516	0.0331		
Saturn	-112982-07-14 23:17 J	-39545057.73	-39545057.53	-39545057.33	0.0300	0.0148		
Uranus	-112977-02-27 21:07 J	-39543368.68	-39543368.62	-39543368.52	0.0136	0.0129		
Pluto	-112976-01-04 10:19 J	-39543057.27	-39543057.07	-39543056.83	0.0064	0.0040		
Uranus	-112976-03-03 13:26 J	-39542999.20	-39542998.94	-39542998.67	0.0136	0.0016		
Pluto	-112975-01-05 23:17 J	-39542690.73	-39542690.53	-39542690.29	0.0064	0.0034		
Jupiter	-112975-02-21 12:00 J	-39542644.23	-39542644.00	-39542643.77	0.0518	0.0186		
Uranus	-112975-03-07 22:34 J	-39542629.75	-39542629.56	-39542629.34	0.0135	0.0076		
Jupiter	-112970-08-08 03:22 J	-39540650.44	-39540650.36	-39540650.27	0.0510	0.0468		
Saturn	-112966-01-21 11:46 J	-39539388.26	-39539388.01	-39539387.76	0.0261	0.0006		
Jupiter	-112958-08-12 17:17 J	-39536263.01	-39536262.78	-39536262.54	0.0509	0.0002		
Saturn	-112952-07-21 10:48 J	-39534093.11	-39534093.05	-39534092.96	0.0300	0.0282		
Mars	-112948-07-10 19:41 J	-39532642.78	-39532642.68	-39532642.58	0.1647	0.1342		
Jupiter	-112946-08-16 21:22 J	-39531875.73	-39531875.61	-39531875.48	0.0508	0.0424		
Saturn	-112937-01-15 23:31 J	-39528801.53	-39528801.52	-39528801.48	0.0261	0.0259		
Uranus	-112932-08-20 20:38 J	-39526757.83	-39526757.64	-39526757.43	0.0143	0.0092		

Uranus -112931-08-25 15:22 J -39526388.09 -39526387.86 -39526387.62 0.0144 0.0027
 Uranus -112930-08-30 12:43 J -39526017.99 -39526017.97 -39526017.90 0.0144 0.0143
 Neptune -112928-01-15 04:05 J -39525514.47 -39525514.33 -39525514.14 0.0089 0.0071
 Neptune -112927-01-17 17:02 J -39525147.03 -39525146.79 -39525146.54 0.0089 0.0032
 Neptune -112926-01-20 11:02 J -39524779.31 -39524779.04 -39524778.75 0.0089 0.0008
 Neptune -112925-01-23 03:07 J -39524411.60 -39524411.37 -39524411.12 0.0089 0.0033
 Neptune -112924-01-24 16:05 J -39524044.03 -39524043.83 -39524043.61 0.0089 0.0057
 Saturn -112923-07-15 16:05 J -39523507.05 -39523506.83 -39523506.59 0.0300 0.0101
 Saturn -112907-01-22 08:53 J -39517837.38 -39517837.13 -39517836.87 0.0261 0.0056
 Jupiter -112904-02-15 18:14 J -39516716.89 -39516716.74 -39516716.57 0.0516 0.0389
 Uranus -112893-02-28 11:31 J -39512687.13 -39512687.02 -39512686.89 0.0136 0.0119
 Jupiter -112892-02-20 19:12 J -39512328.92 -39512328.70 -39512328.48 0.0518 0.0147
 Uranus -112892-03-04 01:41 J -39512317.69 -39512317.43 -39512317.16 0.0136 0.0017
 Uranus -112891-03-08 13:41 J -39511948.09 -39511947.93 -39511947.75 0.0135 0.0096
 Pluto -112887-07-05 07:12 J -39510368.36 -39510368.20 -39510368.04 0.0080 0.0062
 Saturn -112878-01-16 22:48 J -39507250.68 -39507250.55 -39507250.39 0.0261 0.0211
 Mars -112877-01-10 22:48 J -39506891.73 -39506891.55 -39506891.36 0.1867 0.0868
 Jupiter -112875-08-11 23:02 J -39505947.77 -39505947.54 -39505947.32 0.0509 0.0051
 Saturn -112864-07-16 04:34 J -39501956.54 -39501956.31 -39501956.07 0.0300 0.0058
 Jupiter -112863-08-16 18:14 J -39501559.88 -39501559.74 -39501559.58 0.0508 0.0383
 Saturn -112848-01-23 01:26 J -39496286.66 -39496286.44 -39496286.19 0.0261 0.0108
 Uranus -112848-08-21 06:58 J -39496076.39 -39496076.21 -39496076.00 0.0143 0.0092
 Uranus -112847-08-26 03:36 J -39495706.58 -39495706.35 -39495706.11 0.0144 0.0030
 Neptune -112846-07-12 18:29 J -39495385.89 -39495385.73 -39495385.55 0.0088 0.0062
 Neptune -112845-07-13 19:12 J -39495018.91 -39495018.70 -39495018.47 0.0088 0.0042
 Neptune -112844-07-16 09:22 J -39494651.35 -39494651.11 -39494650.85 0.0088 0.0004
 Neptune -112843-07-18 11:02 J -39494284.27 -39494284.04 -39494283.79 0.0088 0.0018
 Neptune -112842-07-20 22:34 J -39493916.74 -39493916.56 -39493916.34 0.0088 0.0056
 Neptune -112841-07-22 04:19 J -39493549.41 -39493549.32 -39493549.17 0.0088 0.0077
 Mars -112822-07-08 12:14 J -39486624.18 -39486623.99 -39486623.81 0.1646 0.0458

Jupiter -112821-02-16 02:38 J -39486401.51 -39486401.39 -39486401.26 0.0516 0.0432
 Saturn -112819-01-18 02:10 J -39485699.60 -39485699.41 -39485699.20 0.0261 0.0159
 Jupiter -112809-02-21 09:22 J -39482013.34 -39482013.11 -39482012.87 0.0517 0.0094
 Uranus -112809-02-29 00:14 J -39482005.62 -39482005.49 -39482005.34 0.0136 0.0113
 Uranus -112808-03-04 11:46 J -39481636.27 -39481636.01 -39481635.74 0.0136 0.0006
 Uranus -112807-03-09 02:10 J -39481266.57 -39481266.41 -39481266.20 0.0135 0.0091
 Saturn -112805-07-17 00:14 J -39480405.72 -39480405.49 -39480405.26 0.0300 0.0008
 Jupiter -112792-08-11 22:05 J -39475631.81 -39475631.58 -39475631.36 0.0509 0.0075
 Saturn -112789-01-25 00:58 J -39474735.64 -39474735.46 -39474735.26 0.0261 0.0166
 Jupiter -112780-08-16 00:14 J -39471244.66 -39471244.49 -39471244.31 0.0508 0.0333
 Uranus -112764-08-21 21:07 J -39465394.83 -39465394.62 -39465394.40 0.0143 0.0074
 Neptune -112763-01-16 14:53 J -39465247.10 -39465246.88 -39465246.64 0.0089 0.0049
 Uranus -112763-08-26 19:41 J -39465024.90 -39465024.68 -39465024.43 0.0143 0.0039
 Neptune -112762-01-19 12:14 J -39464879.23 -39464878.99 -39464878.73 0.0089 0.0025
 Neptune -112761-01-21 22:19 J -39464511.83 -39464511.57 -39464511.30 0.0089 0.0015
 Saturn -112760-01-19 00:29 J -39464148.72 -39464148.48 -39464148.24 0.0261 0.0101
 Neptune -112760-01-23 21:36 J -39464143.84 -39464143.60 -39464143.36 0.0089 0.0039
 Neptune -112759-01-26 05:31 J -39463776.36 -39463776.27 -39463776.12 0.0089 0.0079
 Saturn -112746-07-19 02:24 J -39458854.63 -39458854.40 -39458854.17 0.0300 0.0054
 Mars -112743-07-10 16:05 J -39457767.01 -39457766.83 -39457766.65 0.1646 0.0372
 Jupiter -112738-02-15 07:55 J -39456086.19 -39456086.17 -39456086.14 0.0515 0.0513
 Saturn -112730-01-26 07:12 J -39453184.32 -39453184.20 -39453184.08 0.0262 0.0228
 Pluto -112727-01-06 17:02 J -39452108.05 -39452107.79 -39452107.51 0.0064 0.0012
 Jupiter -112726-02-20 04:05 J -39451698.57 -39451698.33 -39451698.10 0.0517 0.0011
 Uranus -112725-02-29 14:10 J -39451324.05 -39451323.91 -39451323.75 0.0136 0.0109
 Uranus -112724-03-04 23:46 J -39450954.77 -39450954.51 -39450954.24 0.0136 0.0002
 Uranus -112723-03-09 16:48 J -39450584.94 -39450584.80 -39450584.63 0.0135 0.0107
 Jupiter -112714-02-25 16:05 J -39447309.90 -39447309.83 -39447309.75 0.0519 0.0489
 Jupiter -112709-08-10 23:31 J -39445316.74 -39445316.52 -39445316.30 0.0509 0.0138
 Saturn -112701-01-20 20:24 J -39442597.90 -39442597.65 -39442597.39 0.0261 0.0038

Jupiter -112697-08-15 14:53 J -39440929.06 -39440928.88 -39440928.68 0.0508 0.0271
 Saturn -112687-07-20 01:55 J -39437303.63 -39437303.42 -39437303.19 0.0300 0.0125
 Neptune -112682-07-11 20:10 J -39435485.73 -39435485.66 -39435485.54 0.0088 0.0082
 Neptune -112681-07-13 08:38 J -39435118.32 -39435118.14 -39435117.92 0.0088 0.0054
 Neptune -112680-07-15 12:43 J -39434751.19 -39434750.97 -39434750.73 0.0088 0.0023
 Uranus -112680-08-22 11:02 J -39434713.24 -39434713.04 -39434712.81 0.0143 0.0076
 Neptune -112679-07-17 20:53 J -39434383.88 -39434383.63 -39434383.37 0.0088 0.0004
 Uranus -112679-08-27 11:31 J -39434343.25 -39434343.02 -39434342.79 0.0143 0.0052
 Neptune -112678-07-20 06:00 J -39434016.45 -39434016.25 -39434016.01 0.0089 0.0037
 Neptune -112677-07-21 09:50 J -39433649.27 -39433649.09 -39433648.91 0.0089 0.0063
 Saturn -112658-07-13 23:17 J -39426717.65 -39426717.53 -39426717.39 0.0301 0.0248
 Jupiter -112643-02-19 18:43 J -39421382.96 -39421382.72 -39421382.48 0.0517 0.0050
 Saturn -112642-01-22 01:26 J -39421046.69 -39421046.44 -39421046.20 0.0261 0.0032
 Uranus -112641-03-01 03:50 J -39420642.51 -39420642.34 -39420642.14 0.0136 0.0095
 Uranus -112640-03-05 11:46 J -39420273.27 -39420273.01 -39420272.75 0.0136 0.0006
 Uranus -112639-03-10 06:29 J -39419903.37 -39419903.23 -39419903.06 0.0135 0.0107
 Pluto -112639-07-06 04:34 J -39419785.54 -39419785.31 -39419785.06 0.0080 0.0017
 Jupiter -112631-02-24 11:02 J -39416995.18 -39416995.04 -39416994.89 0.0518 0.0408
 Saturn -112628-07-21 02:53 J -39415752.54 -39415752.38 -39415752.20 0.0300 0.0212
 Jupiter -112626-08-11 14:10 J -39415001.11 -39415000.91 -39415000.70 0.0510 0.0199
 Mars -112617-07-06 21:36 J -39411748.66 -39411748.60 -39411748.53 0.1645 0.1515
 Jupiter -112614-08-15 20:24 J -39410613.87 -39410613.65 -39410613.44 0.0509 0.0212
 Saturn -112613-01-17 08:24 J -39410459.28 -39410459.15 -39410458.99 0.0261 0.0218
 Neptune -112599-01-15 21:36 J -39405346.76 -39405346.60 -39405346.45 0.0089 0.0071
 Saturn -112599-07-15 12:29 J -39405166.17 -39405165.98 -39405165.77 0.0300 0.0153
 Neptune -112598-01-18 06:29 J -39404979.47 -39404979.23 -39404978.99 0.0089 0.0039
 Neptune -112597-01-21 05:02 J -39404611.56 -39404611.29 -39404611.01 0.0089 0.0008
 Neptune -112596-01-22 15:36 J -39404244.09 -39404243.85 -39404243.59 0.0089 0.0027
 Uranus -112596-08-23 03:36 J -39404031.58 -39404031.35 -39404031.11 0.0143 0.0052
 Neptune -112595-01-25 10:34 J -39403876.26 -39403876.06 -39403875.84 0.0089 0.0057

Uranus -112595-08-28 04:34 J -39403661.53 -39403661.31 -39403661.08 0.0143 0.0056
 Saturn -112583-01-23 13:12 J -39399495.17 -39399494.95 -39399494.72 0.0262 0.0109
 Jupiter -112560-02-18 05:02 J -39391068.51 -39391068.29 -39391068.06 0.0516 0.0168
 Uranus -112557-03-01 19:55 J -39389960.85 -39389960.67 -39389960.48 0.0136 0.0094
 Uranus -112556-03-06 03:07 J -39389591.63 -39389591.37 -39389591.11 0.0136 0.0018
 Uranus -112555-03-10 22:34 J -39389221.66 -39389221.56 -39389221.44 0.0135 0.0122
 Saturn -112554-01-18 12:00 J -39388908.23 -39388908.00 -39388907.78 0.0262 0.0139
 Jupiter -112548-02-23 13:26 J -39386680.12 -39386679.94 -39386679.74 0.0517 0.0300
 Jupiter -112543-08-10 12:58 J -39384686.15 -39384685.96 -39384685.77 0.0510 0.0281
 Saturn -112540-07-17 03:07 J -39383614.61 -39383614.37 -39383614.13 0.0300 0.0049
 Mars -112538-07-09 15:36 J -39382892.03 -39382891.85 -39382891.68 0.1645 0.0059
 Jupiter -112531-08-15 02:24 J -39380298.61 -39380298.40 -39380298.18 0.0509 0.0124
 Saturn -112524-01-24 23:46 J -39377943.68 -39377943.51 -39377943.32 0.0262 0.0188
 Jupiter -112519-08-19 08:10 J -39375911.17 -39375911.16 -39375911.14 0.0508 0.0507
 Neptune -112517-07-12 15:36 J -39375217.99 -39375217.85 -39375217.67 0.0088 0.0067
 Neptune -112516-07-14 20:10 J -39374850.87 -39374850.66 -39374850.42 0.0088 0.0044
 Neptune -112515-07-17 08:24 J -39374483.39 -39374483.15 -39374482.91 0.0088 0.0007
 Neptune -112514-07-19 09:07 J -39374116.35 -39374116.12 -39374115.86 0.0089 0.0016
 Neptune -112513-07-20 23:31 J -39373748.71 -39373748.52 -39373748.31 0.0089 0.0052
 Neptune -112512-07-23 00:29 J -39373381.59 -39373381.48 -39373381.32 0.0089 0.0074
 Uranus -112512-08-23 17:46 J -39373349.98 -39373349.76 -39373349.52 0.0143 0.0058
 Uranus -112511-08-28 18:43 J -39372979.92 -39372979.72 -39372979.49 0.0143 0.0073
 Saturn -112495-01-19 21:07 J -39367356.86 -39367356.62 -39367356.37 0.0262 0.0060
 Saturn -112481-07-18 16:48 J -39362063.04 -39362062.80 -39362062.57 0.0300 0.0066
 Pluto -112479-01-07 23:31 J -39361524.70 -39361524.52 -39361524.29 0.0064 0.0042
 Pluto -112478-01-09 09:36 J -39361158.31 -39361158.10 -39361157.84 0.0064 0.0027
 Jupiter -112477-02-18 12:43 J -39360753.17 -39360752.97 -39360752.76 0.0516 0.0259
 Uranus -112473-03-02 09:36 J -39359279.31 -39359279.10 -39359278.87 0.0136 0.0076
 Uranus -112472-03-06 16:34 J -39358910.06 -39358909.81 -39358909.55 0.0136 0.0022
 Uranus -112471-03-11 12:00 J -39358540.07 -39358540.00 -39358539.89 0.0135 0.0126

Jupiter -112465-02-23 07:41 J -39356365.40 -39356365.18 -39356364.95 0.0517 0.0208
 Jupiter -112460-08-09 17:46 J -39354370.90 -39354370.76 -39354370.61 0.0511 0.0377
 Mars -112459-07-11 12:29 J -39354035.14 -39354034.98 -39354034.82 0.1645 0.0785
 Saturn -112452-07-13 05:17 J -39351476.33 -39351476.28 -39351476.22 0.0301 0.0291
 Jupiter -112448-08-14 00:58 J -39349983.70 -39349983.46 -39349983.23 0.0510 0.0032
 Saturn -112436-01-21 13:12 J -39345805.19 -39345804.95 -39345804.70 0.0262 0.0025
 Jupiter -112436-08-18 11:46 J -39345596.12 -39345596.01 -39345595.89 0.0509 0.0426
 Neptune -112434-01-17 12:00 J -39345079.23 -39345079.00 -39345078.77 0.0089 0.0051
 Neptune -112433-01-20 02:53 J -39344711.61 -39344711.38 -39344711.11 0.0089 0.0028
 Neptune -112432-01-21 18:00 J -39344344.02 -39344343.75 -39344343.47 0.0089 0.0013
 Neptune -112431-01-24 12:58 J -39343976.19 -39343975.96 -39343975.71 0.0089 0.0037
 Neptune -112430-01-26 23:02 J -39343608.64 -39343608.54 -39343608.37 0.0089 0.0078
 Uranus -112428-08-24 06:43 J -39342668.45 -39342668.22 -39342667.98 0.0143 0.0037
 Uranus -112427-08-29 06:43 J -39342298.42 -39342298.22 -39342297.98 0.0143 0.0070
 Saturn -112422-07-21 10:19 J -39340511.25 -39340511.07 -39340510.88 0.0299 0.0182
 Saturn -112407-01-16 11:17 J -39335218.15 -39335218.03 -39335217.91 0.0261 0.0234
 Jupiter -112394-02-17 02:53 J -39330438.55 -39330438.38 -39330438.21 0.0515 0.0361
 Saturn -112393-07-15 02:10 J -39329924.60 -39329924.41 -39329924.21 0.0300 0.0175
 Pluto -112391-07-06 21:22 J -39329202.66 -39329202.61 -39329202.52 0.0080 0.0077
 Pluto -112390-07-09 03:22 J -39328835.49 -39328835.36 -39328835.19 0.0080 0.0064
 Uranus -112389-03-02 22:34 J -39328597.75 -39328597.56 -39328597.32 0.0136 0.0080
 Uranus -112388-03-07 06:58 J -39328228.44 -39328228.21 -39328227.95 0.0136 0.0036
 Uranus -112387-03-12 02:10 J -39327858.42 -39327858.41 -39327858.38 0.0135 0.0135
 Jupiter -112382-02-22 06:00 J -39326050.47 -39326050.25 -39326050.02 0.0516 0.0089
 Saturn -112377-01-24 04:34 J -39324253.54 -39324253.31 -39324253.08 0.0262 0.0108
 Jupiter -112377-08-08 16:05 J -39324055.92 -39324055.83 -39324055.74 0.0512 0.0468
 Jupiter -112365-08-13 03:07 J -39319668.59 -39319668.37 -39319668.15 0.0510 0.0064
 Neptune -112353-07-11 20:38 J -39315317.71 -39315317.64 -39315317.51 0.0088 0.0082
 Jupiter -112353-08-17 13:41 J -39315281.11 -39315280.93 -39315280.75 0.0508 0.0329
 Neptune -112352-07-14 10:34 J -39314950.21 -39314950.06 -39314949.85 0.0088 0.0061

Neptune -112351-07-16 11:17 J -39314583.25 -39314583.03 -39314582.78 0.0088 0.0024
 Neptune -112350-07-19 00:58 J -39314215.71 -39314215.46 -39314215.20 0.0089 0.0001
 Neptune -112349-07-20 03:50 J -39313848.54 -39313848.34 -39313848.10 0.0089 0.0037
 Saturn -112348-01-17 20:24 J -39313666.86 -39313666.65 -39313666.44 0.0261 0.0150
 Neptune -112348-07-22 12:58 J -39313481.13 -39313480.96 -39313480.75 0.0089 0.0059
 Uranus -112344-08-24 18:00 J -39311986.98 -39311986.75 -39311986.52 0.0143 0.0047
 Uranus -112343-08-29 16:05 J -39311617.02 -39311616.83 -39311616.61 0.0143 0.0085
 Saturn -112334-07-17 16:34 J -39308373.05 -39308372.81 -39308372.57 0.0300 0.0059
 Mars -112333-07-08 07:55 J -39308016.32 -39308016.17 -39308016.02 0.1644 0.1005
 Saturn -112318-01-25 12:43 J -39302702.13 -39302701.97 -39302701.77 0.0262 0.0190
 Jupiter -112311-02-16 04:48 J -39300123.39 -39300123.30 -39300123.20 0.0514 0.0472
 Uranus -112305-03-03 06:43 J -39297916.44 -39297916.22 -39297915.97 0.0137 0.0063
 Uranus -112304-03-07 17:02 J -39297547.03 -39297546.79 -39297546.54 0.0136 0.0032
 Jupiter -112299-02-21 00:00 J -39295735.74 -39295735.50 -39295735.25 0.0516 0.0015
 Saturn -112289-01-20 10:34 J -39292115.30 -39292115.06 -39292114.82 0.0261 0.0069
 Jupiter -112287-02-26 03:07 J -39291347.49 -39291347.37 -39291347.25 0.0518 0.0436
 Jupiter -112282-08-13 04:48 J -39289353.52 -39289353.30 -39289353.07 0.0510 0.0152
 Saturn -112275-07-19 03:22 J -39286821.59 -39286821.36 -39286821.12 0.0300 0.0047
 Neptune -112270-01-16 14:24 J -39285179.06 -39285178.90 -39285178.73 0.0089 0.0069
 Jupiter -112270-08-17 12:14 J -39284966.18 -39284965.99 -39284965.79 0.0509 0.0240
 Neptune -112269-01-19 00:58 J -39284811.67 -39284811.46 -39284811.20 0.0089 0.0044
 Neptune -112268-01-21 00:14 J -39284443.75 -39284443.49 -39284443.22 0.0089 0.0005
 Neptune -112267-01-23 09:22 J -39284076.37 -39284076.11 -39284075.85 0.0089 0.0022
 Neptune -112266-01-26 08:10 J -39283708.33 -39283708.16 -39283707.93 0.0089 0.0060
 Neptune -112265-01-28 17:46 J -39283340.79 -39283340.76 -39283340.68 0.0089 0.0087
 Uranus -112260-08-25 06:43 J -39281305.45 -39281305.22 -39281304.98 0.0142 0.0027
 Uranus -112259-08-30 02:53 J -39280935.58 -39280935.38 -39280935.15 0.0143 0.0077
 Mars -112254-07-11 10:19 J -39279159.25 -39279159.07 -39279158.89 0.1644 0.0416
 Pluto -112230-01-10 09:22 J -39270575.38 -39270575.11 -39270574.82 0.0064 0.0009
 Mars -112230-01-12 21:22 J -39270572.82 -39270572.61 -39270572.39 0.1869 0.0812

Saturn -112230-01-21 23:17 J -39270563.78 -39270563.53 -39270563.27 0.0261 0.0008
 Uranus -112221-03-03 15:22 J -39267235.08 -39267234.86 -39267234.62 0.0137 0.0072
 Uranus -112220-03-08 04:19 J -39266865.55 -39266865.32 -39266865.08 0.0136 0.0047
 Jupiter -112216-02-20 04:34 J -39265420.53 -39265420.31 -39265420.08 0.0516 0.0093
 Saturn -112216-07-20 15:36 J -39265270.05 -39265269.85 -39265269.64 0.0300 0.0140
 Jupiter -112204-02-25 06:00 J -39261032.43 -39261032.25 -39261032.06 0.0517 0.0343
 Saturn -112201-01-16 15:22 J -39259976.93 -39259976.86 -39259976.76 0.0261 0.0245
 Jupiter -112199-08-12 07:41 J -39259038.37 -39259038.18 -39259037.98 0.0511 0.0234
 Neptune -112188-07-13 14:24 J -39255050.02 -39255049.90 -39255049.73 0.0088 0.0071
 Saturn -112187-07-15 00:29 J -39254683.63 -39254683.48 -39254683.30 0.0301 0.0221
 Neptune -112187-07-16 01:55 J -39254682.64 -39254682.42 -39254682.19 0.0088 0.0043
 Jupiter -112187-08-16 22:34 J -39254650.78 -39254650.56 -39254650.34 0.0509 0.0166
 Neptune -112186-07-18 07:41 J -39254315.41 -39254315.18 -39254314.94 0.0088 0.0011
 Neptune -112185-07-19 14:10 J -39253948.16 -39253947.91 -39253947.65 0.0088 0.0016
 Neptune -112184-07-22 00:58 J -39253580.65 -39253580.46 -39253580.24 0.0089 0.0048
 Neptune -112183-07-24 02:53 J -39253213.49 -39253213.38 -39253213.23 0.0089 0.0076
 Uranus -112177-08-21 04:05 J -39250993.39 -39250993.33 -39250993.23 0.0142 0.0135
 Uranus -112176-08-25 20:53 J -39250623.86 -39250623.63 -39250623.39 0.0142 0.0032
 Mars -112175-07-13 07:26 J -39250302.27 -39250302.19 -39250302.12 0.1644 0.1472
 Uranus -112175-08-30 14:53 J -39250254.04 -39250253.88 -39250253.67 0.0143 0.0099
 Saturn -112171-01-23 02:38 J -39249012.64 -39249012.39 -39249012.14 0.0261 0.0074
 Saturn -112157-07-22 01:12 J -39243718.61 -39243718.45 -39243718.30 0.0300 0.0223
 Saturn -112142-01-17 21:07 J -39238425.79 -39238425.62 -39238425.44 0.0261 0.0182
 Pluto -112142-07-10 01:41 J -39238252.66 -39238252.43 -39238252.18 0.0080 0.0004
 Uranus -112137-03-03 22:34 J -39236553.80 -39236553.56 -39236553.31 0.0137 0.0054
 Uranus -112136-03-08 14:10 J -39236184.14 -39236183.91 -39236183.66 0.0136 0.0038
 Jupiter -112133-02-20 07:26 J -39235105.42 -39235105.19 -39235104.95 0.0515 0.0175
 Mars -112128-07-07 14:38 J -39233140.97 -39233140.89 -39233140.80 0.1644 0.1387
 Saturn -112128-07-15 23:17 J -39233132.74 -39233132.53 -39233132.32 0.0301 0.0144
 Jupiter -112121-02-25 02:53 J -39230717.57 -39230717.38 -39230717.17 0.0517 0.0262

Jupiter -112116-08-11 22:34 J -39228722.75 -39228722.56 -39228722.36 0.0511 0.0287
 Saturn -112112-01-23 23:31 J -39227461.74 -39227461.52 -39227461.30 0.0261 0.0137
 Neptune -112105-01-18 11:31 J -39224911.23 -39224911.02 -39224910.80 0.0089 0.0053
 Neptune -112104-01-19 21:07 J -39224543.87 -39224543.62 -39224543.37 0.0089 0.0025
 Jupiter -112104-08-16 01:55 J -39224335.63 -39224335.42 -39224335.19 0.0509 0.0107
 Neptune -112103-01-22 18:29 J -39224176.01 -39224175.73 -39224175.46 0.0089 0.0011
 Neptune -112102-01-25 06:29 J -39223808.44 -39223808.23 -39223807.98 0.0089 0.0039
 Neptune -112101-01-28 00:00 J -39223440.63 -39223440.50 -39223440.35 0.0089 0.0076
 Saturn -112098-07-23 23:17 J -39222167.59 -39222167.53 -39222167.47 0.0300 0.0289
 Uranus -112093-08-21 17:31 J -39220311.83 -39220311.77 -39220311.67 0.0142 0.0134
 Uranus -112092-08-26 12:29 J -39219942.22 -39219941.98 -39219941.74 0.0142 0.0011
 Uranus -112091-08-31 04:05 J -39219572.52 -39219572.33 -39219572.12 0.0143 0.0092
 Saturn -112083-01-19 01:55 J -39216874.63 -39216874.42 -39216874.19 0.0261 0.0122
 Saturn -112069-07-16 23:46 J -39211581.73 -39211581.51 -39211581.29 0.0301 0.0081
 Saturn -112053-01-26 00:14 J -39205910.65 -39205910.49 -39205910.32 0.0261 0.0192
 Uranus -112053-03-04 09:07 J -39205872.35 -39205872.12 -39205871.87 0.0137 0.0062
 Uranus -112052-03-09 03:36 J -39205502.57 -39205502.35 -39205502.12 0.0136 0.0057
 Jupiter -112050-02-19 09:50 J -39204790.29 -39204790.09 -39204789.89 0.0516 0.0243
 Mars -112049-07-09 09:07 J -39204284.29 -39204284.12 -39204283.95 0.1644 0.0493
 Jupiter -112038-02-24 18:58 J -39200401.93 -39200401.71 -39200401.49 0.0517 0.0213
 Jupiter -112033-08-11 02:53 J -39198407.54 -39198407.38 -39198407.21 0.0511 0.0349
 Saturn -112024-01-19 22:48 J -39195323.80 -39195323.55 -39195323.29 0.0261 0.0069
 Neptune -112024-07-13 04:05 J -39195149.40 -39195149.33 -39195149.20 0.0088 0.0082
 Neptune -112023-07-15 12:58 J -39194782.11 -39194781.96 -39194781.77 0.0088 0.0062
 Neptune -112022-07-17 16:19 J -39194415.06 -39194414.82 -39194414.57 0.0088 0.0023
 Neptune -112021-07-19 05:31 J -39194047.51 -39194047.27 -39194047.02 0.0088 0.0003
 Jupiter -112021-08-15 19:26 J -39194019.92 -39194019.69 -39194019.47 0.0510 0.0054
 Neptune -112020-07-21 06:14 J -39193680.46 -39193680.24 -39193680.01 0.0088 0.0037
 Neptune -112019-07-23 19:41 J -39193312.85 -39193312.68 -39193312.47 0.0089 0.0058
 Saturn -112010-07-18 22:34 J -39190030.79 -39190030.56 -39190030.32 0.0301 0.0025

Uranus -112009-08-22 06:58 J -39189630.34 -39189630.21 -39189630.08 0.0142 0.0120

Uranus -112008-08-27 04:05 J -39189260.57 -39189260.33 -39189260.09 0.0142 0.0013

Uranus -112007-08-31 17:17 J -39188890.91 -39188890.78 -39188890.61 0.0143 0.0115

112TH MILLENNIUM BCE

This is a list of transits of Moon in the 112th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-111994-01-27 02:53 J		-39184359.46	-39184359.38	-39184359.28	0.0261	0.0242	
Pluto	-111982-01-11 18:14 J		-39179991.96	-39179991.74	-39179991.51	0.0064	0.0034	
Pluto	-111981-01-13 01:26 J		-39179625.64	-39179625.44	-39179625.19	0.0064	0.0035	
Mars	-111970-07-12 07:26 J		-39175427.36	-39175427.19	-39175427.02	0.1644	0.0600	
Uranus	-111969-03-04 18:58 J		-39175190.95	-39175190.71	-39175190.44	0.0137	0.0044	
Uranus	-111968-03-09 16:05 J		-39174821.06	-39174820.83	-39174820.59	0.0136	0.0048	
Jupiter	-111967-02-19 00:14 J		-39174474.69	-39174474.49	-39174474.28	0.0515	0.0288	
Saturn	-111965-01-21 14:38 J		-39173773.15	-39173772.89	-39173772.63	0.0261	0.0019	
Jupiter	-111955-02-23 19:55 J		-39170086.89	-39170086.67	-39170086.44	0.0516	0.0155	
Saturn	-111951-07-19 14:38 J		-39168480.13	-39168479.89	-39168479.65	0.0301	0.0027	
Jupiter	-111950-08-11 23:02 J		-39168091.69	-39168091.54	-39168091.40	0.0511	0.0392	
Mars	-111946-01-11 12:43 J		-39166843.15	-39166842.97	-39166842.80	0.1869	0.0896	
Neptune	-111941-01-17 10:48 J		-39165011.22	-39165011.05	-39165010.88	0.0089	0.0067	
Neptune	-111940-01-19 03:50 J		-39164643.57	-39164643.34	-39164643.09	0.0089	0.0043	

Neptune -111939-01-21 21:36 J -39164275.86 -39164275.60 -39164275.34 0.0089 0.0002
 Neptune -111938-01-24 09:36 J -39163908.36 -39163908.10 -39163907.82 0.0089 0.0022
 Jupiter -111938-08-16 04:34 J -39163704.54 -39163704.31 -39163704.08 0.0510 0.0023
 Neptune -111937-01-27 06:58 J -39163540.39 -39163540.21 -39163540.02 0.0089 0.0063
 Neptune -111936-01-28 16:05 J -39163172.88 -39163172.83 -39163172.74 0.0089 0.0086
 Jupiter -111926-08-20 20:38 J -39159316.70 -39159316.64 -39159316.56 0.0508 0.0480
 Uranus -111925-08-22 18:29 J -39158948.86 -39158948.73 -39158948.58 0.0142 0.0116
 Uranus -111924-08-27 17:02 J -39158579.03 -39158578.79 -39158578.54 0.0142 0.0002
 Uranus -111923-09-01 04:34 J -39158209.48 -39158209.31 -39158209.14 0.0143 0.0106
 Saturn -111906-01-22 12:29 J -39152222.23 -39152221.98 -39152221.73 0.0261 0.0029
 Pluto -111894-07-10 23:31 J -39147669.70 -39147669.52 -39147669.30 0.0080 0.0047
 Saturn -111892-07-20 03:50 J -39146929.57 -39146929.34 -39146929.11 0.0301 0.0076
 Uranus -111885-03-05 07:26 J -39144509.43 -39144509.19 -39144508.94 0.0137 0.0048
 Jupiter -111884-02-17 21:22 J -39144159.77 -39144159.61 -39144159.45 0.0515 0.0367
 Uranus -111884-03-10 05:31 J -39144139.49 -39144139.27 -39144139.05 0.0136 0.0068
 Saturn -111877-01-17 15:07 J -39141635.00 -39141634.87 -39141634.71 0.0260 0.0218
 Jupiter -111872-02-23 07:26 J -39139771.43 -39139771.19 -39139770.95 0.0517 0.0086
 Jupiter -111867-08-11 05:46 J -39137776.37 -39137776.26 -39137776.14 0.0511 0.0438
 Neptune -111859-07-14 20:38 J -39134881.76 -39134881.64 -39134881.48 0.0088 0.0073
 Neptune -111858-07-17 10:34 J -39134514.27 -39134514.06 -39134513.82 0.0088 0.0039
 Neptune -111857-07-18 11:46 J -39134147.24 -39134147.01 -39134146.76 0.0088 0.0015
 Neptune -111856-07-21 00:00 J -39133779.74 -39133779.50 -39133779.24 0.0088 0.0020
 Neptune -111855-07-23 04:34 J -39133412.50 -39133412.31 -39133412.09 0.0088 0.0046
 Jupiter -111855-08-15 22:34 J -39133388.78 -39133388.56 -39133388.34 0.0510 0.0027
 Neptune -111854-07-25 11:17 J -39133045.10 -39133045.03 -39133044.89 0.0089 0.0081
 Saturn -111847-01-23 15:36 J -39130671.09 -39130670.85 -39130670.61 0.0261 0.0079
 Mars -111844-07-09 03:36 J -39129408.50 -39129408.35 -39129408.20 0.1644 0.0978
 Jupiter -111843-08-20 01:26 J -39129001.57 -39129001.44 -39129001.31 0.0509 0.0423
 Uranus -111841-08-23 04:19 J -39128267.45 -39128267.32 -39128267.16 0.0142 0.0114
 Uranus -111840-08-28 03:50 J -39127897.59 -39127897.34 -39127897.10 0.0142 0.0003

Uranus -111839-09-01 14:10 J -39127528.04 -39127527.91 -39127527.78 0.0143 0.0121
 Saturn -111833-07-21 01:12 J -39125378.65 -39125378.45 -39125378.24 0.0300 0.0130
 Saturn -111818-01-18 09:07 J -39120084.31 -39120084.12 -39120083.91 0.0261 0.0164
 Saturn -111804-07-15 00:58 J -39114792.60 -39114792.46 -39114792.31 0.0301 0.0242
 Jupiter -111801-02-18 13:12 J -39113844.08 -39113843.95 -39113843.80 0.0515 0.0417
 Uranus -111801-03-05 16:34 J -39113828.05 -39113827.81 -39113827.55 0.0137 0.0036
 Uranus -111800-03-10 15:22 J -39113458.09 -39113457.86 -39113457.62 0.0136 0.0058
 Jupiter -111789-02-23 09:22 J -39109456.35 -39109456.11 -39109455.87 0.0516 0.0033
 Saturn -111788-01-24 16:05 J -39109120.04 -39109119.83 -39109119.60 0.0261 0.0134
 Jupiter -111784-08-10 21:36 J -39107460.63 -39107460.60 -39107460.55 0.0512 0.0501
 Neptune -111777-01-16 13:26 J -39105111.03 -39105110.94 -39105110.85 0.0089 0.0083
 Neptune -111776-01-18 11:31 J -39104743.21 -39104743.02 -39104742.80 0.0089 0.0056
 Neptune -111775-01-20 21:22 J -39104375.86 -39104375.61 -39104375.33 0.0089 0.0020
 Neptune -111774-01-23 21:07 J -39104007.88 -39104007.62 -39104007.35 0.0089 0.0010
 Saturn -111774-07-23 05:17 J -39103827.46 -39103827.28 -39103827.10 0.0300 0.0191
 Neptune -111773-01-26 05:46 J -39103640.47 -39103640.26 -39103640.01 0.0089 0.0046
 Neptune -111772-01-28 04:19 J -39103272.44 -39103272.32 -39103272.16 0.0089 0.0076
 Jupiter -111772-08-15 03:07 J -39103073.60 -39103073.37 -39103073.14 0.0511 0.0080
 Mars -111765-07-11 04:05 J -39100551.51 -39100551.33 -39100551.15 0.1644 0.0154
 Jupiter -111760-08-19 19:41 J -39098685.82 -39098685.68 -39098685.54 0.0509 0.0391
 Saturn -111759-01-19 10:48 J -39098533.28 -39098533.05 -39098532.82 0.0261 0.0106
 Uranus -111757-08-23 12:58 J -39097586.09 -39097585.96 -39097585.78 0.0142 0.0108
 Uranus -111756-08-28 11:31 J -39097216.27 -39097216.02 -39097215.76 0.0142 0.0004
 Uranus -111755-09-01 21:22 J -39096846.75 -39096846.61 -39096846.44 0.0143 0.0112
 Saturn -111745-07-15 23:31 J -39093241.71 -39093241.52 -39093241.32 0.0301 0.0173
 Pluto -111733-01-14 08:10 J -39089042.43 -39089042.16 -39089041.87 0.0064 0.0010
 Saturn -111729-01-26 14:24 J -39087569.08 -39087568.90 -39087568.72 0.0261 0.0190
 Jupiter -111718-02-17 10:33 J -39083529.13 -39083529.06 -39083528.99 0.0514 0.0489
 Uranus -111717-03-06 01:12 J -39083146.69 -39083146.45 -39083146.20 0.0137 0.0039
 Uranus -111716-03-10 23:02 J -39082776.76 -39082776.54 -39082776.32 0.0136 0.0073

Saturn -111715-07-24 08:24 J -39082276.25 -39082276.15 -39082276.02 0.0300 0.0262
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 Neptune -111695-07-14 16:05 J -39074980.92 -39074980.83 -39074980.72 0.0088 0.0081
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 Mars -111686-07-13 23:31 J -39071694.65 -39071694.52 -39071694.40 0.1644 0.1070
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 Jupiter -111606-08-14 15:50 J -39042443.05 -39042442.84 -39042442.63 0.0511 0.0228
 Jupiter -111594-08-19 03:07 J -39038055.56 -39038055.37 -39038055.17 0.0510 0.0240
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 Saturn -111553-01-19 10:05 J -39023292.27 -39023292.08 -39023291.87 0.0261 0.0156
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 Uranus -111548-03-11 10:19 J -39021414.29 -39021414.07 -39021413.83 0.0136 0.0071
 Jupiter -111540-02-20 14:53 J -39018511.09 -39018510.88 -39018510.68 0.0515 0.0240
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 Neptune -111526-07-24 12:00 J -39013244.20 -39013244.00 -39013243.79 0.0088 0.0047
 Neptune -111525-07-26 00:43 J -39012876.51 -39012876.47 -39012876.38 0.0089 0.0086
 Saturn -111523-01-25 18:00 J -39012327.94 -39012327.75 -39012327.55 0.0262 0.0165
 Jupiter -111523-08-13 20:53 J -39012127.79 -39012127.63 -39012127.45 0.0512 0.0314
 Jupiter -111511-08-18 06:57 J -39007740.44 -39007740.21 -39007739.99 0.0510 0.0152
 Saturn -111509-07-23 07:12 J -39007035.37 -39007035.20 -39007035.01 0.0300 0.0204
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 Saturn -111494-01-21 00:00 J -39001740.74 -39001740.50 -39001740.25 0.0261 0.0081
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Pluto -111484-01-16 02:53 J -38998092.45 -38998092.38 -38998092.27 0.0064 0.0061
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 Saturn -111480-07-17 20:09 J -38996448.86 -38996448.66 -38996448.46 0.0300 0.0137
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 Uranus -111465-03-07 02:53 J -38991102.61 -38991102.38 -38991102.13 0.0137 0.0036
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 Neptune -111448-01-16 20:53 J -38984942.75 -38984942.63 -38984942.49 0.0089 0.0078
 Neptune -111447-01-19 12:00 J -38984575.18 -38984575.00 -38984574.78 0.0089 0.0055
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 Jupiter -111440-08-12 22:33 J -38981812.70 -38981812.56 -38981812.41 0.0512 0.0400
 Saturn -111435-01-22 08:24 J -38980189.42 -38980189.15 -38980188.88 0.0261 0.0007
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 Uranus -111420-08-30 01:55 J -38974490.67 -38974490.42 -38974490.16 0.0142 0.0014
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 Jupiter -111362-02-24 06:00 J -38953493.50 -38953493.25 -38953493.00 0.0515 0.0057
 Saturn -111362-07-22 03:21 J -38953345.60 -38953345.36 -38953345.13 0.0300 0.0068
 Neptune -111362-07-24 07:26 J -38953343.40 -38953343.19 -38953342.94 0.0088 0.0039
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 Mars -111355-07-10 00:00 J -38950800.64 -38950800.50 -38950800.37 0.1645 0.1124
 Saturn -111347-01-19 00:29 J -38948050.67 -38948050.48 -38948050.28 0.0261 0.0167
 Jupiter -111345-08-16 10:48 J -38947110.28 -38947110.05 -38947109.82 0.0512 0.0028
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 Saturn -111333-07-15 15:07 J -38942758.96 -38942758.87 -38942758.76 0.0300 0.0268
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 Saturn -111317-01-26 03:07 J -38937086.58 -38937086.37 -38937086.16 0.0261 0.0136
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 Jupiter -111279-02-23 03:50 J -38923178.57 -38923178.34 -38923178.11 0.0514 0.0038

Mars -111276-07-11 21:50 J -38921943.76 -38921943.59 -38921943.42 0.1644 0.0274
 Saturn -111274-07-18 04:19 J -38921207.50 -38921207.32 -38921207.14 0.0300 0.0184
 Jupiter -111267-02-28 06:00 J -38918790.34 -38918790.25 -38918790.15 0.0517 0.0471
 Jupiter -111262-08-16 11:45 J -38916795.23 -38916795.01 -38916794.79 0.0512 0.0094
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 Saturn -111229-01-22 06:57 J -38904948.46 -38904948.21 -38904947.95 0.0261 0.0044
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 Uranus -111214-03-04 07:26 J -38899428.20 -38899428.19 -38899428.15 0.0137 0.0137
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 Neptune -111199-07-21 14:38 J -38893810.14 -38893809.89 -38893809.63 0.0088 0.0007
 Neptune -111198-07-23 23:02 J -38893442.76 -38893442.54 -38893442.31 0.0088 0.0031
 Mars -111197-07-13 16:19 J -38893086.94 -38893086.82 -38893086.70 0.1644 0.1157
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 Jupiter -111179-08-16 01:55 J -38886479.64 -38886479.42 -38886479.20 0.0512 0.0158
 Saturn -111170-01-23 09:50 J -38883397.34 -38883397.09 -38883396.84 0.0261 0.0011
 Uranus -111169-08-26 13:55 J -38882816.07 -38882815.92 -38882815.72 0.0141 0.0098

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 Saturn -111141-01-18 12:57 J -38872810.07 -38872809.96 -38872809.84 0.0260 0.0232
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 Saturn -111111-01-24 15:21 J -38861846.10 -38861845.86 -38861845.61 0.0261 0.0062
 Jupiter -111101-02-27 19:41 J -38858159.85 -38858159.68 -38858159.50 0.0516 0.0348
 Saturn -111097-07-21 01:12 J -38856554.68 -38856554.45 -38856554.22 0.0300 0.0003
 Jupiter -111096-08-15 05:31 J -38856164.48 -38856164.27 -38856164.06 0.0512 0.0210
 Uranus -111085-08-26 21:50 J -38852134.78 -38852134.59 -38852134.37 0.0141 0.0082
 Jupiter -111084-08-20 01:26 J -38851776.64 -38851776.44 -38851776.25 0.0511 0.0250
 Uranus -111084-08-31 06:29 J -38851765.48 -38851765.23 -38851764.99 0.0142 0.0015
 Uranus -111083-09-05 05:45 J -38851395.26 -38851395.26 -38851395.23 0.0143 0.0142
 Saturn -111082-01-19 07:26 J -38851259.37 -38851259.19 -38851259.00 0.0261 0.0183
 Mars -111071-07-10 20:24 J -38847068.82 -38847068.65 -38847068.49 0.1646 0.0652
 Saturn -111052-01-25 14:38 J -38840295.13 -38840294.89 -38840294.65 0.0261 0.0111
 Uranus -111046-03-04 17:31 J -38838065.77 -38838065.77 -38838065.72 0.0138 0.0137
 Uranus -111045-03-08 17:45 J -38837696.03 -38837695.76 -38837695.50 0.0137 0.0017
 Uranus -111044-03-13 03:21 J -38837326.56 -38837326.36 -38837326.13 0.0136 0.0073

Saturn -111038-07-23 00:14 J -38835003.72 -38835003.49 -38835003.26 0.0300 0.0052
 Neptune -111037-07-16 16:05 J -38834643.92 -38834643.83 -38834643.69 0.0088 0.0078
 Neptune -111036-07-18 21:21 J -38834276.82 -38834276.61 -38834276.37 0.0088 0.0042
 Neptune -111035-07-21 08:38 J -38833909.37 -38833909.14 -38833908.89 0.0088 0.0018
 Neptune -111034-07-23 10:05 J -38833542.32 -38833542.08 -38833541.83 0.0088 0.0018
 Neptune -111033-07-24 23:45 J -38833174.72 -38833174.51 -38833174.28 0.0088 0.0042
 Neptune -111032-07-27 00:00 J -38832807.58 -38832807.50 -38832807.35 0.0088 0.0078
 Jupiter -111030-02-21 19:12 J -38832232.91 -38832232.70 -38832232.48 0.0514 0.0239
 Saturn -111023-01-20 06:14 J -38829708.45 -38829708.24 -38829708.02 0.0261 0.0133
 Jupiter -111018-02-26 16:05 J -38827845.02 -38827844.83 -38827844.62 0.0516 0.0278
 Mars -111015-01-11 23:17 J -38826794.71 -38826794.53 -38826794.34 0.1869 0.0931
 Jupiter -111013-08-15 03:07 J -38825848.56 -38825848.37 -38825848.17 0.0512 0.0245
 Jupiter -111001-08-19 06:29 J -38821461.45 -38821461.23 -38821461.02 0.0511 0.0194
 Uranus -111001-08-27 07:12 J -38821453.39 -38821453.20 -38821453.00 0.0141 0.0090

111TH MILLENNIUM BCE

This is a list of transits of Moon in the 111th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Uranus -111000-08-31 16:05 J -38821084.06 -38821083.83 -38821083.58 0.0142 0.0033
 Uranus -110999-09-05 14:24 J -38820713.98 -38820713.90 -38820713.79 0.0143 0.0131
 Saturn -110993-01-27 06:14 J -38818744.43 -38818744.24 -38818744.02 0.0261 0.0162

Mars -110992-07-12 21:36 J -38818211.79 -38818211.60 -38818211.41 0.1645 0.0077
 Pluto -110989-01-18 11:31 J -38817292.20 -38817292.02 -38817291.82 0.0064 0.0046
 Pluto -110988-01-19 00:57 J -38816925.67 -38816925.46 -38816925.21 0.0064 0.0030
 Saturn -110979-07-23 16:33 J -38813453.03 -38813452.81 -38813452.58 0.0300 0.0107
 Saturn -110964-01-21 09:21 J -38808157.34 -38808157.11 -38808156.87 0.0261 0.0081
 Uranus -110962-03-05 01:55 J -38807384.51 -38807384.42 -38807384.31 0.0138 0.0125
 Uranus -110961-03-08 23:02 J -38807014.79 -38807014.54 -38807014.27 0.0137 0.0031
 Uranus -110960-03-13 10:48 J -38806645.23 -38806645.05 -38806644.84 0.0136 0.0087
 Neptune -110955-01-17 07:55 J -38804874.18 -38804874.17 -38804874.10 0.0089 0.0088
 Neptune -110954-01-20 02:24 J -38804506.57 -38804506.40 -38804506.17 0.0089 0.0061
 Neptune -110953-01-22 19:26 J -38804138.94 -38804138.69 -38804138.43 0.0089 0.0022
 Neptune -110952-01-24 09:07 J -38803771.39 -38803771.12 -38803770.83 0.0089 0.0005
 Neptune -110951-01-27 06:00 J -38803403.46 -38803403.25 -38803403.01 0.0089 0.0043
 Neptune -110950-01-29 16:05 J -38803035.97 -38803035.83 -38803035.64 0.0089 0.0071
 Saturn -110950-07-17 09:50 J -38802867.19 -38802867.09 -38802866.97 0.0301 0.0262
 Jupiter -110947-02-20 23:31 J -38801917.71 -38801917.52 -38801917.32 0.0514 0.0283
 Jupiter -110935-02-26 11:02 J -38797529.25 -38797529.04 -38797528.83 0.0515 0.0236
 Saturn -110934-01-28 03:21 J -38797193.48 -38797193.36 -38797193.21 0.0261 0.0216
 Jupiter -110930-08-15 06:29 J -38795533.41 -38795533.23 -38795533.04 0.0513 0.0302
 Saturn -110920-07-24 06:43 J -38791902.41 -38791902.22 -38791902.02 0.0300 0.0166
 Jupiter -110918-08-19 23:17 J -38791145.73 -38791145.53 -38791145.31 0.0511 0.0148
 Uranus -110917-08-27 16:05 J -38790772.04 -38790771.83 -38790771.61 0.0141 0.0077
 Uranus -110916-09-01 03:36 J -38790402.59 -38790402.35 -38790402.11 0.0142 0.0023
 Mars -110913-07-15 02:38 J -38789354.44 -38789354.39 -38789354.33 0.1644 0.1569
 Saturn -110905-01-23 08:24 J -38786606.41 -38786606.15 -38786605.89 0.0261 0.0026
 Pluto -110901-07-17 13:26 J -38784969.15 -38784968.94 -38784968.71 0.0080 0.0033
 Saturn -110891-07-18 11:17 J -38781316.20 -38781316.03 -38781315.84 0.0300 0.0195
 Uranus -110878-03-05 11:02 J -38776703.11 -38776703.04 -38776702.95 0.0138 0.0130
 Uranus -110877-03-09 06:14 J -38776333.51 -38776333.24 -38776332.98 0.0137 0.0015
 Uranus -110876-03-13 20:53 J -38775963.83 -38775963.63 -38775963.41 0.0136 0.0075

Neptune -110873-07-16 05:17 J -38774743.34 -38774743.28 -38774743.18 0.0088 0.0084
 Neptune -110872-07-18 18:14 J -38774375.90 -38774375.74 -38774375.54 0.0088 0.0060
 Neptune -110871-07-20 18:57 J -38774008.94 -38774008.71 -38774008.47 0.0088 0.0025
 Neptune -110870-07-23 08:38 J -38773641.39 -38773641.14 -38773640.89 0.0088 0.0001
 Neptune -110869-07-24 10:05 J -38773274.28 -38773274.08 -38773273.84 0.0088 0.0035
 Neptune -110868-07-26 19:55 J -38772906.84 -38772906.67 -38772906.47 0.0088 0.0061
 Mars -110866-07-10 17:45 J -38772192.81 -38772192.76 -38772192.71 0.1647 0.1569
 Jupiter -110864-02-20 14:09 J -38771602.09 -38771601.91 -38771601.72 0.0513 0.0334
 Saturn -110861-07-25 06:57 J -38770351.34 -38770351.21 -38770351.06 0.0300 0.0233
 Jupiter -110852-02-25 03:07 J -38767214.60 -38767214.37 -38767214.13 0.0515 0.0143
 Jupiter -110847-08-15 02:09 J -38765217.57 -38765217.41 -38765217.24 0.0513 0.0339
 Saturn -110846-01-24 03:07 J -38765055.63 -38765055.37 -38765055.11 0.0261 0.0034
 Jupiter -110835-08-19 09:21 J -38760830.34 -38760830.11 -38760829.88 0.0512 0.0092
 Uranus -110833-08-28 00:14 J -38760090.69 -38760090.49 -38760090.26 0.0141 0.0080
 Saturn -110832-07-19 09:21 J -38759765.33 -38759765.11 -38759764.88 0.0300 0.0122
 Uranus -110832-09-01 13:55 J -38759721.14 -38759720.92 -38759720.67 0.0142 0.0039
 Uranus -110831-09-06 07:55 J -38759351.22 -38759351.17 -38759351.08 0.0143 0.0137
 Jupiter -110823-08-23 17:45 J -38756442.83 -38756442.76 -38756442.69 0.0510 0.0481
 Saturn -110817-01-18 23:31 J -38754468.63 -38754468.52 -38754468.38 0.0261 0.0224
 Uranus -110794-03-05 21:36 J -38746021.69 -38746021.60 -38746021.45 0.0137 0.0122
 Uranus -110793-03-09 13:41 J -38745652.19 -38745651.93 -38745651.66 0.0137 0.0023
 Uranus -110792-03-14 06:43 J -38745282.38 -38745282.22 -38745282.01 0.0136 0.0092
 Neptune -110790-01-19 12:00 J -38744606.14 -38744606.00 -38744605.82 0.0089 0.0071
 Neptune -110789-01-21 22:48 J -38744238.78 -38744238.55 -38744238.29 0.0089 0.0041
 Neptune -110788-01-23 22:48 J -38743870.81 -38743870.55 -38743870.28 0.0089 0.0004
 Saturn -110787-01-25 04:33 J -38743504.54 -38743504.31 -38743504.07 0.0262 0.0098
 Neptune -110787-01-26 07:55 J -38743503.42 -38743503.17 -38743502.91 0.0089 0.0025
 Mars -110787-07-12 15:07 J -38743336.04 -38743335.87 -38743335.69 0.1646 0.0122
 Neptune -110786-01-29 06:43 J -38743135.38 -38743135.22 -38743135.00 0.0089 0.0064
 Jupiter -110781-02-20 05:17 J -38741287.41 -38741287.28 -38741287.15 0.0513 0.0432

Saturn -110773-07-20 11:17 J -38738214.27 -38738214.03 -38738213.80 0.0300 0.0038
 Jupiter -110769-02-25 16:19 J -38736899.06 -38736898.82 -38736898.59 0.0515 0.0081
 Jupiter -110764-08-14 06:00 J -38734902.38 -38734902.25 -38734902.10 0.0513 0.0406
 Saturn -110758-01-20 04:33 J -38732917.51 -38732917.31 -38732917.10 0.0261 0.0159
 Jupiter -110752-08-18 14:38 J -38730515.11 -38730514.89 -38730514.67 0.0512 0.0016
 Uranus -110749-08-28 07:26 J -38729409.39 -38729409.19 -38729408.96 0.0142 0.0076
 Uranus -110748-09-02 00:14 J -38729039.72 -38729039.49 -38729039.25 0.0142 0.0030
 Pluto -110741-01-19 21:21 J -38726708.71 -38726708.61 -38726708.45 0.0064 0.0055
 Pluto -110740-01-20 07:41 J -38726342.44 -38726342.18 -38726341.90 0.0064 0.0014
 Jupiter -110740-08-23 03:50 J -38726127.47 -38726127.34 -38726127.20 0.0511 0.0410
 Saturn -110728-01-26 14:09 J -38721953.09 -38721952.91 -38721952.71 0.0262 0.0167
 Saturn -110714-07-22 23:02 J -38716662.76 -38716662.54 -38716662.31 0.0300 0.0051
 Uranus -110710-03-06 08:38 J -38715340.25 -38715340.14 -38715340.00 0.0137 0.0119
 Uranus -110709-03-09 22:33 J -38714970.83 -38714970.56 -38714970.29 0.0137 0.0011
 Uranus -110708-03-14 18:29 J -38714600.92 -38714600.73 -38714600.51 0.0136 0.0081
 Mars -110708-07-14 08:24 J -38714479.31 -38714479.15 -38714478.99 0.1645 0.0581
 Neptune -110708-07-18 03:50 J -38714475.45 -38714475.34 -38714475.18 0.0088 0.0074
 Neptune -110707-07-20 16:05 J -38714108.05 -38714107.83 -38714107.58 0.0088 0.0035
 Neptune -110706-07-22 20:38 J -38713740.87 -38713740.64 -38713740.39 0.0088 0.0014
 Neptune -110705-07-24 04:05 J -38713373.57 -38713373.33 -38713373.08 0.0088 0.0025
 Neptune -110704-07-26 13:12 J -38713006.13 -38713005.95 -38713005.72 0.0088 0.0047
 Neptune -110703-07-28 15:36 J -38712638.90 -38712638.85 -38712638.76 0.0088 0.0085
 Saturn -110699-01-21 06:57 J -38711366.46 -38711366.21 -38711365.95 0.0262 0.0088
 Jupiter -110698-02-19 17:02 J -38710971.84 -38710971.79 -38710971.74 0.0512 0.0500
 Jupiter -110686-02-24 11:17 J -38706584.27 -38706584.03 -38706583.78 0.0514 0.0009
 Saturn -110685-07-16 11:02 J -38706076.09 -38706076.04 -38706075.96 0.0300 0.0289
 Jupiter -110681-08-13 11:17 J -38704587.09 -38704587.03 -38704586.96 0.0514 0.0488
 Jupiter -110674-03-01 12:00 J -38702196.12 -38702196.00 -38702195.86 0.0515 0.0422
 Saturn -110669-01-29 00:57 J -38700401.55 -38700401.46 -38700401.35 0.0262 0.0238
 Jupiter -110669-08-17 23:17 J -38700199.77 -38700199.53 -38700199.30 0.0513 0.0059

Uranus -110665-08-28 12:29 J -38698728.19 -38698727.98 -38698727.76 0.0141 0.0074
 Uranus -110664-09-02 07:26 J -38698358.42 -38698358.19 -38698357.95 0.0142 0.0035
 Uranus -110663-09-06 19:41 J -38697988.74 -38697988.68 -38697988.60 0.0143 0.0137
 Jupiter -110657-08-22 04:05 J -38695812.49 -38695812.33 -38695812.16 0.0511 0.0331
 Saturn -110655-07-24 18:00 J -38695110.94 -38695110.75 -38695110.55 0.0299 0.0153
 Pluto -110653-07-19 04:48 J -38694385.50 -38694385.30 -38694385.07 0.0080 0.0042
 Mars -110652-01-14 04:19 J -38694206.44 -38694206.32 -38694206.20 0.1868 0.1605
 Saturn -110640-01-22 14:09 J -38689815.16 -38689814.91 -38689814.65 0.0262 0.0014
 Neptune -110626-01-18 12:43 J -38684706.05 -38684705.97 -38684705.84 0.0089 0.0081
 Uranus -110626-03-06 16:48 J -38684658.91 -38684658.80 -38684658.65 0.0137 0.0118
 Saturn -110626-07-18 22:05 J -38684524.76 -38684524.58 -38684524.39 0.0300 0.0186
 Neptune -110625-01-21 12:43 J -38684338.16 -38684337.97 -38684337.74 0.0089 0.0057
 Uranus -110625-03-10 04:48 J -38684289.56 -38684289.30 -38684289.04 0.0137 0.0014
 Neptune -110624-01-22 23:45 J -38683970.77 -38683970.51 -38683970.25 0.0089 0.0015
 Uranus -110624-03-15 02:38 J -38683919.56 -38683919.39 -38683919.19 0.0136 0.0095
 Neptune -110623-01-25 20:53 J -38683602.91 -38683602.63 -38683602.35 0.0089 0.0009
 Neptune -110622-01-28 10:48 J -38683235.25 -38683235.05 -38683234.82 0.0089 0.0051
 Neptune -110621-01-31 03:50 J -38682867.48 -38682867.34 -38682867.19 0.0089 0.0075
 Saturn -110611-01-18 00:29 J -38679227.54 -38679227.48 -38679227.38 0.0262 0.0249
 Jupiter -110603-02-23 10:33 J -38676269.28 -38676269.06 -38676268.83 0.0513 0.0117
 Saturn -110596-07-26 12:14 J -38673559.10 -38673558.99 -38673558.86 0.0299 0.0256
 Jupiter -110591-02-28 09:50 J -38671881.28 -38671881.09 -38671880.89 0.0515 0.0324
 Jupiter -110586-08-17 21:36 J -38669884.80 -38669884.60 -38669884.38 0.0513 0.0147
 Mars -110582-07-11 15:21 J -38668460.99 -38668460.86 -38668460.74 0.1648 0.1210
 Saturn -110581-01-25 05:02 J -38668263.53 -38668263.29 -38668263.05 0.0262 0.0065
 Uranus -110581-08-28 18:29 J -38668046.92 -38668046.73 -38668046.51 0.0141 0.0079
 Uranus -110580-09-02 14:53 J -38667677.10 -38667676.88 -38667676.63 0.0142 0.0033
 Jupiter -110574-08-22 10:19 J -38665497.27 -38665497.07 -38665496.86 0.0511 0.0237
 Saturn -110567-07-20 15:36 J -38662973.07 -38662972.85 -38662972.62 0.0300 0.0080
 Saturn -110552-01-19 08:53 J -38657676.32 -38657676.13 -38657675.92 0.0262 0.0168

Neptune -110544-07-17 23:45 J -38654574.60 -38654574.51 -38654574.40 0.0088 0.0081
 Neptune -110543-07-20 06:14 J -38654207.42 -38654207.24 -38654207.03 0.0088 0.0052
 Uranus -110542-03-06 23:31 J -38653977.66 -38653977.52 -38653977.36 0.0138 0.0112
 Neptune -110542-07-22 10:33 J -38653840.30 -38653840.06 -38653839.81 0.0088 0.0023
 Uranus -110541-03-10 10:33 J -38653608.32 -38653608.06 -38653607.80 0.0137 0.0011
 Neptune -110541-07-23 22:33 J -38653472.80 -38653472.56 -38653472.31 0.0088 0.0009
 Uranus -110540-03-15 09:50 J -38653238.27 -38653238.09 -38653237.87 0.0136 0.0085
 Neptune -110540-07-25 23:02 J -38653105.74 -38653105.54 -38653105.29 0.0088 0.0039
 Neptune -110539-07-28 13:41 J -38652738.08 -38652737.93 -38652737.77 0.0088 0.0069
 Saturn -110522-01-26 21:36 J -38646711.80 -38646711.60 -38646711.38 0.0262 0.0145
 Jupiter -110520-02-22 05:02 J -38645954.52 -38645954.29 -38645954.06 0.0513 0.0210
 Jupiter -110508-02-27 07:26 J -38641566.39 -38641566.19 -38641565.98 0.0514 0.0231
 Saturn -110508-07-22 13:26 J -38641421.17 -38641420.94 -38641420.71 0.0300 0.0028
 Mars -110503-07-13 19:26 J -38639603.88 -38639603.69 -38639603.50 0.1647 0.0270
 Jupiter -110503-08-17 02:24 J -38639569.60 -38639569.40 -38639569.19 0.0514 0.0242
 Uranus -110497-08-29 01:55 J -38637365.62 -38637365.42 -38637365.19 0.0141 0.0069
 Uranus -110496-09-02 23:17 J -38636995.76 -38636995.53 -38636995.28 0.0142 0.0032
 Uranus -110495-09-07 08:09 J -38636626.19 -38636626.16 -38636626.10 0.0143 0.0140
 Saturn -110493-01-21 17:02 J -38636125.03 -38636124.79 -38636124.55 0.0262 0.0089
 Pluto -110492-01-22 03:50 J -38635758.62 -38635758.34 -38635758.07 0.0064 0.0011
 Jupiter -110491-08-21 05:17 J -38635182.49 -38635182.28 -38635182.07 0.0513 0.0146
 Saturn -110479-07-17 01:26 J -38630834.47 -38630834.44 -38630834.38 0.0299 0.0294
 Saturn -110463-01-28 07:55 J -38625160.29 -38625160.17 -38625160.02 0.0262 0.0222
 Neptune -110461-01-20 15:36 J -38624437.98 -38624437.85 -38624437.66 0.0089 0.0069
 Neptune -110460-01-22 08:53 J -38624070.38 -38624070.13 -38624069.86 0.0089 0.0032
 Neptune -110459-01-25 03:36 J -38623702.61 -38623702.35 -38623702.09 0.0089 0.0001
 Neptune -110458-01-27 16:19 J -38623335.07 -38623334.82 -38623334.56 0.0089 0.0034
 Uranus -110458-03-07 05:02 J -38623296.40 -38623296.29 -38623296.14 0.0138 0.0119
 Neptune -110457-01-30 14:24 J -38622967.06 -38622966.90 -38622966.71 0.0089 0.0066
 Uranus -110457-03-10 16:33 J -38622927.07 -38622926.81 -38622926.55 0.0137 0.0010

Uranus -110456-03-15 15:50 J -38622557.01 -38622556.84 -38622556.63 0.0136 0.0093
 Saturn -110449-07-24 07:55 J -38619869.38 -38619869.17 -38619868.96 0.0300 0.0129
 Jupiter -110437-02-22 04:48 J -38615639.48 -38615639.30 -38615639.11 0.0512 0.0309
 Saturn -110434-01-23 06:43 J -38614573.47 -38614573.22 -38614572.97 0.0262 0.0013
 Jupiter -110425-02-27 06:00 J -38611251.49 -38611251.25 -38611251.00 0.0514 0.0125
 Mars -110424-07-15 23:31 J -38610746.65 -38610746.52 -38610746.38 0.1646 0.1145
 Saturn -110420-07-18 14:38 J -38609283.07 -38609282.89 -38609282.72 0.0299 0.0197
 Jupiter -110420-08-15 22:48 J -38609254.71 -38609254.55 -38609254.38 0.0514 0.0330
 Uranus -110413-08-29 11:45 J -38606684.20 -38606684.01 -38606683.79 0.0141 0.0078
 Uranus -110412-09-03 08:53 J -38606314.36 -38606314.13 -38606313.88 0.0142 0.0038
 Jupiter -110408-08-20 16:48 J -38604867.02 -38604866.80 -38604866.57 0.0512 0.0069
 Saturn -110405-01-18 07:26 J -38603986.23 -38603986.19 -38603986.13 0.0262 0.0257
 Pluto -110405-07-21 00:43 J -38603801.66 -38603801.47 -38603801.25 0.0080 0.0043
 Jupiter -110396-08-24 17:31 J -38600479.84 -38600479.77 -38600479.69 0.0511 0.0483
 Saturn -110390-07-26 17:17 J -38598317.94 -38598317.78 -38598317.61 0.0300 0.0221
 Neptune -110379-07-19 18:43 J -38594306.86 -38594306.72 -38594306.54 0.0088 0.0068
 Neptune -110378-07-22 07:55 J -38593939.38 -38593939.17 -38593938.92 0.0088 0.0030
 Mars -110377-07-10 12:14 J -38593585.09 -38593584.99 -38593584.88 0.1650 0.1345
 Neptune -110377-07-23 08:24 J -38593572.39 -38593572.15 -38593571.90 0.0088 0.0009
 Neptune -110376-07-25 21:21 J -38593204.85 -38593204.61 -38593204.37 0.0088 0.0030
 Saturn -110375-01-24 20:09 J -38593021.91 -38593021.66 -38593021.42 0.0262 0.0059
 Neptune -110375-07-27 23:31 J -38592837.71 -38592837.52 -38592837.32 0.0088 0.0052
 Uranus -110374-03-07 12:57 J -38592615.12 -38592614.96 -38592614.78 0.0138 0.0106
 Uranus -110373-03-11 01:26 J -38592245.69 -38592245.44 -38592245.18 0.0137 0.0012
 Uranus -110372-03-16 00:00 J -38591875.69 -38591875.50 -38591875.29 0.0136 0.0090
 Mars -110368-01-12 19:12 J -38590476.89 -38590476.70 -38590476.51 0.1866 0.0066
 Saturn -110361-07-20 05:17 J -38587731.49 -38587731.28 -38587731.06 0.0299 0.0109
 Jupiter -110354-02-21 00:29 J -38585324.63 -38585324.48 -38585324.32 0.0512 0.0405
 Saturn -110346-01-19 11:31 J -38582435.20 -38582435.02 -38582434.83 0.0261 0.0184
 Jupiter -110342-02-26 01:12 J -38580936.68 -38580936.45 -38580936.22 0.0514 0.0038

Jupiter -110337-08-15 11:17 J -38578939.17 -38578939.03 -38578938.89 0.0514 0.0402
 Jupiter -110330-03-03 10:48 J -38576548.11 -38576548.05 -38576547.98 0.0515 0.0495
 Uranus -110329-08-29 22:19 J -38576002.77 -38576002.57 -38576002.34 0.0141 0.0062
 Uranus -110328-09-03 18:43 J -38575632.97 -38575632.72 -38575632.48 0.0142 0.0035
 Jupiter -110325-08-19 13:26 J -38574552.17 -38574551.94 -38574551.72 0.0513 0.0016
 Saturn -110316-01-26 00:57 J -38571470.68 -38571470.46 -38571470.22 0.0262 0.0124
 Jupiter -110313-08-24 04:19 J -38570164.45 -38570164.32 -38570164.19 0.0512 0.0411
 Saturn -110302-07-22 14:38 J -38566180.12 -38566179.89 -38566179.66 0.0300 0.0031
 Mars -110298-07-13 07:55 J -38564728.33 -38564728.17 -38564728.01 0.1649 0.0636
 Neptune -110297-01-19 19:41 J -38564537.78 -38564537.68 -38564537.52 0.0089 0.0078
 Neptune -110296-01-21 18:43 J -38564169.93 -38564169.72 -38564169.50 0.0089 0.0051
 Neptune -110295-01-24 04:48 J -38563802.56 -38563802.30 -38563802.02 0.0089 0.0011
 Neptune -110294-01-27 05:02 J -38563434.55 -38563434.29 -38563434.02 0.0089 0.0014
 Neptune -110293-01-29 14:09 J -38563067.09 -38563066.91 -38563066.69 0.0089 0.0056
 Neptune -110292-01-31 12:43 J -38562699.05 -38562698.97 -38562698.83 0.0089 0.0081
 Uranus -110290-03-07 21:07 J -38561933.77 -38561933.62 -38561933.47 0.0138 0.0114
 Uranus -110289-03-11 11:31 J -38561564.27 -38561564.02 -38561563.76 0.0137 0.0003
 Uranus -110288-03-16 08:09 J -38561194.34 -38561194.16 -38561193.96 0.0136 0.0095
 Saturn -110287-01-20 18:14 J -38560883.96 -38560883.74 -38560883.51 0.0261 0.0120
 Jupiter -110271-02-20 04:48 J -38555009.38 -38555009.30 -38555009.20 0.0512 0.0471
 Jupiter -110259-02-25 12:00 J -38550621.25 -38550621.00 -38550620.76 0.0513 0.0030
 Saturn -110257-01-27 23:31 J -38549919.71 -38549919.52 -38549919.34 0.0261 0.0183
 Jupiter -110254-08-15 10:05 J -38548624.16 -38548624.08 -38548624.00 0.0515 0.0477
 Jupiter -110247-03-02 05:31 J -38546233.40 -38546233.27 -38546233.13 0.0515 0.0418
 Uranus -110245-08-30 09:50 J -38545321.29 -38545321.09 -38545320.88 0.0141 0.0072
 Pluto -110244-01-23 12:00 J -38545175.25 -38545175.00 -38545174.73 0.0064 0.0005
 Uranus -110244-09-04 03:50 J -38544951.58 -38544951.34 -38544951.10 0.0142 0.0047
 Saturn -110243-07-23 12:43 J -38544629.21 -38544628.97 -38544628.72 0.0300 0.0032
 Jupiter -110242-08-20 04:33 J -38544236.53 -38544236.31 -38544236.09 0.0513 0.0076
 Jupiter -110230-08-24 11:17 J -38539849.19 -38539849.03 -38539848.86 0.0511 0.0364

Saturn -110228-01-22 01:55 J -38539332.66 -38539332.42 -38539332.17 0.0261 0.0059
 Mars -110219-07-15 01:55 J -38535871.58 -38535871.42 -38535871.26 0.1648 0.0587
 Neptune -110215-07-19 16:05 J -38534405.92 -38534405.83 -38534405.70 0.0088 0.0080
 Neptune -110214-07-21 17:02 J -38534038.98 -38534038.79 -38534038.56 0.0088 0.0045
 Neptune -110213-07-23 04:33 J -38533671.55 -38533671.31 -38533671.05 0.0088 0.0020
 Neptune -110212-07-25 09:50 J -38533304.32 -38533304.09 -38533303.85 0.0088 0.0017
 Neptune -110211-07-27 15:21 J -38532937.07 -38532936.86 -38532936.61 0.0088 0.0040
 Neptune -110210-07-30 01:26 J -38532569.54 -38532569.44 -38532569.30 0.0088 0.0077
 Uranus -110206-03-08 06:57 J -38531252.38 -38531252.21 -38531251.99 0.0138 0.0097
 Uranus -110205-03-12 00:29 J -38530882.73 -38530882.48 -38530882.23 0.0137 0.0006
 Uranus -110204-03-16 18:29 J -38530512.90 -38530512.73 -38530512.54 0.0136 0.0101
 Saturn -110198-01-29 00:14 J -38528368.59 -38528368.49 -38528368.38 0.0261 0.0237
 Saturn -110184-07-24 07:12 J -38523078.42 -38523078.20 -38523077.97 0.0300 0.0086
 Jupiter -110176-02-24 05:02 J -38520306.52 -38520306.29 -38520306.06 0.0513 0.0112
 Saturn -110169-01-24 03:21 J -38517781.63 -38517781.36 -38517781.10 0.0261 0.0004
 Jupiter -110164-03-01 16:48 J -38515917.97 -38515917.80 -38515917.62 0.0515 0.0348
 Uranus -110161-08-30 19:41 J -38514639.90 -38514639.68 -38514639.46 0.0141 0.0056
 Uranus -110160-09-04 11:17 J -38514270.27 -38514270.03 -38514269.77 0.0142 0.0039
 Jupiter -110159-08-19 11:31 J -38513921.25 -38513921.02 -38513920.80 0.0513 0.0126
 Pluto -110157-07-22 11:02 J -38513218.20 -38513218.04 -38513217.82 0.0080 0.0051
 Saturn -110155-07-18 09:36 J -38512492.19 -38512492.10 -38512491.99 0.0300 0.0270
 Jupiter -110147-08-24 01:12 J -38509533.63 -38509533.45 -38509533.28 0.0512 0.0313
 Saturn -110140-01-17 12:29 J -38507195.03 -38507194.98 -38507194.92 0.0261 0.0255
 Neptune -110132-01-20 17:17 J -38504269.94 -38504269.78 -38504269.59 0.0089 0.0067
 Neptune -110131-01-23 16:48 J -38503902.06 -38503901.80 -38503901.53 0.0089 0.0025
 Neptune -110130-01-26 04:48 J -38503534.55 -38503534.30 -38503534.03 0.0089 0.0002
 Neptune -110129-01-29 00:29 J -38503166.71 -38503166.48 -38503166.21 0.0089 0.0041
 Neptune -110128-01-30 16:33 J -38502798.96 -38502798.81 -38502798.63 0.0089 0.0067
 Saturn -110125-07-25 05:02 J -38501527.48 -38501527.29 -38501527.08 0.0300 0.0134
 Uranus -110122-03-08 16:05 J -38500571.00 -38500570.83 -38500570.66 0.0138 0.0105

Uranus -110121-03-12 12:14 J -38500201.24 -38500200.99 -38500200.74 0.0137 0.0010
 Uranus -110120-03-17 03:50 J -38499831.51 -38499831.34 -38499831.15 0.0136 0.0101
 Saturn -110110-01-24 21:21 J -38496230.87 -38496230.61 -38496230.35 0.0261 0.0049
 Saturn -110096-07-19 01:41 J -38490941.59 -38490941.43 -38490941.26 0.0300 0.0222
 Jupiter -110093-02-24 23:17 J -38489990.76 -38489990.53 -38489990.29 0.0513 0.0157
 Mars -110093-07-11 10:05 J -38489853.22 -38489853.08 -38489852.94 0.1652 0.1079
 Mars -110084-01-11 18:14 J -38486746.93 -38486746.74 -38486746.55 0.1864 0.1148
 Saturn -110081-01-19 15:21 J -38485644.00 -38485643.86 -38485643.69 0.0261 0.0203
 Jupiter -110081-02-29 19:12 J -38485602.90 -38485602.70 -38485602.50 0.0514 0.0301
 Uranus -110077-08-31 04:05 J -38483958.53 -38483958.33 -38483958.11 0.0141 0.0070
 Jupiter -110076-08-19 01:55 J -38483605.63 -38483605.42 -38483605.22 0.0514 0.0183
 Uranus -110076-09-04 16:33 J -38483589.04 -38483588.81 -38483588.56 0.0142 0.0052
 Saturn -110066-07-27 03:50 J -38479976.52 -38479976.34 -38479976.15 0.0300 0.0178
 Jupiter -110064-08-23 11:17 J -38479218.22 -38479218.03 -38479217.82 0.0512 0.0268
 Saturn -110051-01-25 18:14 J -38474679.97 -38474679.74 -38474679.50 0.0261 0.0100
 Neptune -110051-07-19 02:09 J -38474505.42 -38474505.41 -38474505.35 0.0088 0.0088
 Neptune -110050-07-21 10:05 J -38474138.24 -38474138.08 -38474137.87 0.0088 0.0061
 Neptune -110049-07-22 18:29 J -38473770.95 -38473770.73 -38473770.50 0.0088 0.0028
 Neptune -110048-07-24 21:50 J -38473403.85 -38473403.59 -38473403.34 0.0088 0.0002
 Neptune -110047-07-27 10:19 J -38473036.29 -38473036.07 -38473035.84 0.0088 0.0032
 Neptune -110046-07-29 10:48 J -38472669.24 -38472669.05 -38472668.87 0.0088 0.0058
 Uranus -110038-03-09 00:00 J -38469889.70 -38469889.50 -38469889.29 0.0138 0.0088
 Uranus -110037-03-12 22:48 J -38469519.80 -38469519.55 -38469519.30 0.0137 0.0001
 Saturn -110037-07-19 17:02 J -38469390.97 -38469390.79 -38469390.59 0.0300 0.0177
 Uranus -110036-03-17 11:02 J -38469150.16 -38469150.04 -38469149.86 0.0136 0.0114
 Saturn -110022-01-20 15:07 J -38464093.07 -38464092.87 -38464092.65 0.0262 0.0151
 Mars -110014-07-14 14:38 J -38460996.08 -38460995.89 -38460995.70 0.1651 0.0054
 Jupiter -110010-02-23 23:16 J -38459675.75 -38459675.53 -38459675.31 0.0512 0.0211
 Saturn -110007-07-27 20:38 J -38458425.79 -38458425.64 -38458425.47 0.0300 0.0224

110TH MILLENNIUM BCE

This is a list of transits of Moon in the 110th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-109998-03-01 03:50 J		-38455287.55	-38455287.34	-38455287.13	0.0514	0.0222	
Pluto	-109996-01-25 02:52 J		-38454591.66	-38454591.38	-38454591.10	0.0064	0.0001	
Jupiter	-109993-08-18 15:07 J		-38453290.08	-38453289.87	-38453289.66	0.0514	0.0218	
Uranus	-109993-08-31 14:24 J		-38453277.12	-38453276.90	-38453276.68	0.0141	0.0054	
Saturn	-109992-01-26 21:36 J		-38453128.79	-38453128.60	-38453128.39	0.0262	0.0149	
Uranus	-109992-09-05 00:28 J		-38452907.72	-38452907.48	-38452907.23	0.0142	0.0039	
Jupiter	-109981-08-23 01:40 J		-38448902.62	-38448902.43	-38448902.23	0.0512	0.0230	
Saturn	-109978-07-21 17:45 J		-38447839.96	-38447839.76	-38447839.55	0.0299	0.0124	
Neptune	-109968-01-20 01:55 J		-38444369.53	-38444369.42	-38444369.26	0.0089	0.0078	
Neptune	-109967-01-22 18:14 J		-38444001.95	-38444001.74	-38444001.50	0.0089	0.0046	
Neptune	-109966-01-25 09:07 J		-38443634.38	-38443634.12	-38443633.83	0.0089	0.0012	
Neptune	-109965-01-28 06:00 J		-38443266.50	-38443266.25	-38443265.99	0.0089	0.0021	
Neptune	-109964-01-29 17:02 J		-38442898.98	-38442898.79	-38442898.56	0.0089	0.0057	
Saturn	-109963-01-21 08:52 J		-38442542.37	-38442542.13	-38442541.88	0.0262	0.0102	
Neptune	-109963-02-01 17:02 J		-38442530.83	-38442530.79	-38442530.73	0.0089	0.0087	
Uranus	-109954-03-09 06:00 J		-38439208.41	-38439208.25	-38439208.04	0.0138	0.0099	
Uranus	-109953-03-13 07:40 J		-38438838.43	-38438838.18	-38438837.92	0.0137	0.0018	
Uranus	-109952-03-17 18:43 J		-38438468.88	-38438468.72	-38438468.54	0.0136	0.0105	

Saturn -109948-07-28 13:26 J -38436875.03 -38436874.94 -38436874.83 0.0299 0.0272
 Mars -109935-07-16 18:14 J -38432138.89 -38432138.74 -38432138.59 0.1649 0.0991
 Saturn -109933-01-29 00:00 J -38431577.65 -38431577.50 -38431577.32 0.0262 0.0200
 Jupiter -109927-02-23 08:52 J -38429360.32 -38429360.13 -38429359.93 0.0512 0.0291
 Saturn -109919-07-22 21:21 J -38426288.83 -38426288.61 -38426288.38 0.0299 0.0067
 Jupiter -109915-02-28 06:28 J -38424972.46 -38424972.23 -38424971.99 0.0514 0.0168
 Jupiter -109910-08-19 01:55 J -38422974.60 -38422974.42 -38422974.24 0.0514 0.0278
 Pluto -109909-07-24 09:36 J -38422634.29 -38422634.10 -38422633.90 0.0080 0.0051
 Uranus -109909-09-01 00:00 J -38422595.70 -38422595.50 -38422595.27 0.0141 0.0063
 Uranus -109908-09-05 08:09 J -38422226.38 -38422226.16 -38422225.92 0.0142 0.0057
 Saturn -109904-01-22 07:40 J -38420991.43 -38420991.18 -38420990.94 0.0262 0.0051
 Jupiter -109898-08-23 11:31 J -38418587.24 -38418587.02 -38418586.79 0.0513 0.0168
 Neptune -109886-07-21 03:21 J -38414237.46 -38414237.36 -38414237.24 0.0088 0.0078
 Neptune -109885-07-22 04:19 J -38413870.54 -38413870.32 -38413870.09 0.0088 0.0039
 Neptune -109884-07-24 17:45 J -38413503.00 -38413502.76 -38413502.51 0.0088 0.0018
 Neptune -109883-07-26 18:14 J -38413135.97 -38413135.74 -38413135.50 0.0088 0.0022
 Neptune -109882-07-29 06:00 J -38412768.46 -38412768.25 -38412768.02 0.0088 0.0043
 Neptune -109881-07-30 09:07 J -38412401.18 -38412401.12 -38412400.99 0.0088 0.0082
 Saturn -109874-01-29 20:52 J -38410026.69 -38410026.63 -38410026.53 0.0262 0.0249
 Uranus -109870-03-09 14:52 J -38408527.07 -38408526.88 -38408526.66 0.0138 0.0084
 Uranus -109869-03-13 17:02 J -38408157.05 -38408156.79 -38408156.53 0.0137 0.0007
 Uranus -109868-03-18 02:24 J -38407787.49 -38407787.40 -38407787.25 0.0136 0.0122
 Saturn -109860-07-23 23:31 J -38404737.76 -38404737.52 -38404737.28 0.0299 0.0001
 Saturn -109845-01-24 15:07 J -38399440.12 -38399439.87 -38399439.62 0.0262 0.0003
 Jupiter -109844-02-22 08:09 J -38399045.33 -38399045.16 -38399044.98 0.0512 0.0350
 Jupiter -109832-02-27 15:21 J -38394657.09 -38394656.86 -38394656.63 0.0513 0.0102
 Jupiter -109827-08-18 09:50 J -38392659.26 -38392659.09 -38392658.92 0.0515 0.0346
 Uranus -109825-09-01 12:43 J -38391914.20 -38391913.97 -38391913.73 0.0141 0.0047
 Uranus -109824-09-05 19:55 J -38391544.90 -38391544.67 -38391544.43 0.0142 0.0048
 Saturn -109816-01-18 11:45 J -38388853.15 -38388853.01 -38388852.87 0.0263 0.0224

Jupiter -109815-08-22 18:00 J -38388271.97 -38388271.75 -38388271.54 0.0514 0.0110
 Mars -109809-07-13 00:43 J -38386120.63 -38386120.47 -38386120.32 0.1653 0.0701
 Neptune -109803-01-21 18:28 J -38384101.89 -38384101.73 -38384101.52 0.0089 0.0065
 Neptune -109802-01-24 18:14 J -38383733.99 -38383733.74 -38383733.47 0.0089 0.0023
 Neptune -109801-01-27 03:50 J -38383366.60 -38383366.34 -38383366.07 0.0089 0.0002
 Saturn -109801-07-25 03:36 J -38383186.57 -38383186.35 -38383186.11 0.0299 0.0078
 Neptune -109800-01-29 03:21 J -38382998.58 -38382998.36 -38382998.10 0.0089 0.0044
 Neptune -109799-01-31 13:26 J -38382631.09 -38382630.94 -38382630.75 0.0089 0.0068
 Saturn -109786-01-25 22:48 J -38377888.80 -38377888.55 -38377888.29 0.0262 0.0062
 Uranus -109786-03-10 01:40 J -38377845.61 -38377845.43 -38377845.22 0.0138 0.0088
 Uranus -109785-03-14 03:50 J -38377475.59 -38377475.34 -38377475.07 0.0137 0.0026
 Uranus -109784-03-18 13:40 J -38377106.06 -38377105.93 -38377105.76 0.0136 0.0112
 Saturn -109772-07-19 18:57 J -38372599.83 -38372599.71 -38372599.58 0.0298 0.0247
 Jupiter -109761-02-22 12:14 J -38368730.10 -38368729.99 -38368729.88 0.0510 0.0449
 Saturn -109757-01-20 16:19 J -38367302.02 -38367301.82 -38367301.62 0.0263 0.0165
 Pluto -109749-01-26 05:31 J -38364374.31 -38364374.27 -38364374.18 0.0064 0.0063
 Jupiter -109749-02-27 08:38 J -38364342.39 -38364342.14 -38364341.89 0.0512 0.0008
 Pluto -109748-01-27 03:50 J -38364007.60 -38364007.34 -38364007.06 0.0065 0.0009
 Jupiter -109744-08-17 13:12 J -38362344.07 -38362343.95 -38362343.83 0.0516 0.0425
 Saturn -109742-07-27 17:02 J -38361634.97 -38361634.79 -38361634.59 0.0298 0.0166
 Uranus -109741-09-01 23:45 J -38361232.74 -38361232.51 -38361232.27 0.0141 0.0050
 Uranus -109740-09-06 06:43 J -38360863.43 -38360863.22 -38360862.99 0.0142 0.0066
 Jupiter -109732-08-22 03:36 J -38357956.58 -38357956.35 -38357956.12 0.0514 0.0036
 Mars -109730-07-15 18:14 J -38357263.90 -38357263.74 -38357263.57 0.1652 0.0436
 Saturn -109727-01-27 02:24 J -38356337.63 -38356337.40 -38356337.16 0.0262 0.0123
 Neptune -109722-07-20 09:50 J -38354337.10 -38354337.09 -38354337.04 0.0088 0.0088
 Mars -109721-01-14 19:55 J -38354158.84 -38354158.67 -38354158.50 0.1863 0.1122
 Neptune -109721-07-21 22:48 J -38353969.72 -38353969.55 -38353969.33 0.0088 0.0057
 Neptune -109720-07-24 01:26 J -38353602.66 -38353602.44 -38353602.20 0.0088 0.0029
 Jupiter -109720-08-26 04:33 J -38353569.36 -38353569.31 -38353569.25 0.0512 0.0492

Neptune -109719-07-26 11:16 J -38353235.28 -38353235.03 -38353234.77 0.0088 0.0004
 Neptune -109718-07-28 17:31 J -38352867.98 -38352867.77 -38352867.53 0.0088 0.0032
 Neptune -109717-07-29 21:21 J -38352500.76 -38352500.61 -38352500.42 0.0088 0.0065
 Saturn -109713-07-21 06:57 J -38351048.41 -38351048.21 -38351048.00 0.0299 0.0155
 Uranus -109702-03-10 15:36 J -38347164.06 -38347163.85 -38347163.63 0.0138 0.0074
 Uranus -109701-03-14 16:19 J -38346794.08 -38346793.82 -38346793.55 0.0137 0.0019
 Uranus -109700-03-19 02:24 J -38346424.44 -38346424.40 -38346424.31 0.0136 0.0133
 Saturn -109698-01-22 05:02 J -38345750.51 -38345750.29 -38345750.06 0.0263 0.0099
 Saturn -109683-07-29 13:55 J -38340083.02 -38340082.92 -38340082.81 0.0298 0.0263
 Saturn -109668-01-28 09:36 J -38334786.28 -38334786.10 -38334785.92 0.0262 0.0189
 Jupiter -109666-02-26 10:19 J -38334027.30 -38334027.07 -38334026.84 0.0512 0.0087
 Pluto -109661-07-26 11:45 J -38332050.24 -38332050.01 -38332049.78 0.0080 0.0024
 Jupiter -109661-08-16 18:14 J -38332028.75 -38332028.74 -38332028.72 0.0516 0.0514
 Uranus -109657-09-02 12:00 J -38330551.24 -38330551.00 -38330550.76 0.0141 0.0039
 Uranus -109656-09-06 19:55 J -38330181.88 -38330181.67 -38330181.44 0.0142 0.0060
 Jupiter -109654-03-03 12:57 J -38329639.10 -38329638.96 -38329638.82 0.0514 0.0423
 Saturn -109654-07-23 18:28 J -38329496.96 -38329496.73 -38329496.49 0.0299 0.0059
 Mars -109651-07-17 15:21 J -38328406.98 -38328406.86 -38328406.74 0.1651 0.1228
 Jupiter -109649-08-20 22:04 J -38327641.80 -38327641.58 -38327641.36 0.0515 0.0062
 Neptune -109639-01-21 02:52 J -38324201.47 -38324201.38 -38324201.24 0.0089 0.0081
 Saturn -109639-01-23 18:43 J -38324198.97 -38324198.72 -38324198.46 0.0263 0.0031
 Neptune -109638-01-23 14:09 J -38323834.14 -38323833.91 -38323833.67 0.0089 0.0041
 Neptune -109637-01-26 11:31 J -38323466.28 -38323466.02 -38323465.73 0.0089 0.0014
 Jupiter -109637-08-25 13:55 J -38323254.05 -38323253.92 -38323253.78 0.0513 0.0409
 Neptune -109636-01-28 01:40 J -38323098.66 -38323098.43 -38323098.16 0.0089 0.0026
 Neptune -109635-01-30 18:57 J -38322730.92 -38322730.71 -38322730.48 0.0089 0.0054
 Uranus -109618-03-11 06:28 J -38316482.44 -38316482.23 -38316482.00 0.0138 0.0071
 Uranus -109617-03-15 05:31 J -38316112.52 -38316112.27 -38316112.01 0.0137 0.0038
 Uranus -109616-03-19 17:45 J -38315742.85 -38315742.76 -38315742.65 0.0136 0.0125
 Saturn -109609-01-31 00:14 J -38313234.49 -38313234.49 -38313234.46 0.0262 0.0262

Mars -109604-07-12 03:36 J -38311245.47 -38311245.35 -38311245.24 0.1657 0.1323
 Saturn -109595-07-25 12:14 J -38307945.22 -38307944.99 -38307944.76 0.0299 0.0041
 Jupiter -109583-02-25 05:45 J -38303712.49 -38303712.26 -38303712.02 0.0511 0.0190
 Saturn -109580-01-25 04:19 J -38302647.58 -38302647.32 -38302647.06 0.0263 0.0040
 Uranus -109573-09-02 19:55 J -38299869.91 -38299869.67 -38299869.42 0.0141 0.0038
 Uranus -109572-09-07 06:00 J -38299500.46 -38299500.25 -38299500.04 0.0142 0.0070
 Jupiter -109571-03-02 03:36 J -38299324.53 -38299324.35 -38299324.16 0.0513 0.0310
 Saturn -109566-07-20 10:19 J -38297358.17 -38297358.07 -38297357.95 0.0298 0.0264
 Jupiter -109566-08-21 06:14 J -38297326.46 -38297326.24 -38297326.02 0.0515 0.0147
 Neptune -109557-07-21 07:55 J -38294069.29 -38294069.17 -38294069.05 0.0088 0.0076
 Neptune -109556-07-23 13:55 J -38293702.13 -38293701.92 -38293701.67 0.0088 0.0039
 Neptune -109555-07-26 00:14 J -38293334.72 -38293334.49 -38293334.24 0.0088 0.0015
 Neptune -109554-07-28 02:09 J -38292967.64 -38292967.41 -38292967.16 0.0088 0.0022
 Jupiter -109554-08-25 09:36 J -38292939.27 -38292939.10 -38292938.92 0.0513 0.0322
 Neptune -109553-07-29 15:36 J -38292600.06 -38292599.85 -38292599.63 0.0088 0.0045
 Neptune -109552-07-31 15:36 J -38292232.93 -38292232.85 -38292232.74 0.0088 0.0082
 Saturn -109551-01-19 23:02 J -38292060.70 -38292060.54 -38292060.37 0.0263 0.0194
 Saturn -109536-07-27 08:24 J -38286393.34 -38286393.15 -38286392.94 0.0299 0.0140
 Uranus -109534-03-11 21:07 J -38285800.83 -38285800.62 -38285800.38 0.0138 0.0061
 Uranus -109533-03-15 17:45 J -38285431.02 -38285430.76 -38285430.50 0.0137 0.0036
 Mars -109525-07-14 09:50 J -38282388.28 -38282388.09 -38282387.90 0.1655 0.0315
 Saturn -109521-01-27 11:31 J -38281096.24 -38281096.02 -38281095.77 0.0263 0.0108
 Saturn -109507-07-21 21:50 J -38275806.78 -38275806.59 -38275806.38 0.0298 0.0170
 Pluto -109501-01-28 13:55 J -38273790.09 -38273789.92 -38273789.70 0.0064 0.0045
 Pluto -109500-01-28 22:48 J -38273423.75 -38273423.55 -38273423.31 0.0065 0.0037
 Jupiter -109500-02-24 00:00 J -38273397.68 -38273397.50 -38273397.30 0.0511 0.0295
 Saturn -109492-01-21 15:50 J -38270509.05 -38270508.84 -38270508.60 0.0263 0.0124
 Uranus -109490-08-30 16:19 J -38269557.89 -38269557.82 -38269557.73 0.0141 0.0132
 Uranus -109489-09-03 05:45 J -38269188.50 -38269188.26 -38269188.01 0.0141 0.0036
 Jupiter -109488-03-01 05:45 J -38269009.48 -38269009.26 -38269009.03 0.0513 0.0219

Uranus -109488-09-07 17:31 J -38268818.97 -38268818.77 -38268818.55 0.0142 0.0068
 Jupiter -109483-08-20 02:09 J -38267011.61 -38267011.41 -38267011.21 0.0515 0.0235
 Saturn -109477-07-29 00:43 J -38264841.62 -38264841.47 -38264841.32 0.0299 0.0230
 Neptune -109474-01-22 17:02 J -38263933.97 -38263933.79 -38263933.58 0.0089 0.0062
 Neptune -109473-01-25 12:14 J -38263566.23 -38263565.99 -38263565.73 0.0089 0.0026
 Neptune -109472-01-27 00:57 J -38263198.74 -38263198.46 -38263198.19 0.0089 0.0004
 Neptune -109471-01-29 23:31 J -38262830.75 -38262830.52 -38262830.28 0.0089 0.0041
 Jupiter -109471-08-24 18:00 J -38262623.95 -38262623.75 -38262623.55 0.0514 0.0234
 Neptune -109470-02-01 09:07 J -38262463.27 -38262463.12 -38262462.94 0.0089 0.0069
 Saturn -109462-01-28 23:02 J -38259544.72 -38259544.54 -38259544.35 0.0263 0.0176
 Uranus -109450-03-12 10:19 J -38255119.29 -38255119.07 -38255118.83 0.0138 0.0054
 Uranus -109449-03-16 04:04 J -38254749.57 -38254749.33 -38254749.07 0.0137 0.0049
 Saturn -109448-07-23 08:09 J -38254255.39 -38254255.16 -38254254.94 0.0298 0.0086
 Mars -109446-07-17 12:28 J -38253531.12 -38253530.98 -38253530.84 0.1653 0.1060
 Mars -109437-01-14 09:50 J -38250428.30 -38250428.09 -38250427.88 0.1860 0.0193
 Saturn -109433-01-24 02:24 J -38248957.65 -38248957.40 -38248957.14 0.0262 0.0055
 Jupiter -109417-02-24 04:19 J -38243082.49 -38243082.32 -38243082.14 0.0511 0.0367
 Pluto -109413-07-28 13:55 J -38241466.15 -38241465.92 -38241465.67 0.0080 0.0020
 Uranus -109406-08-31 02:52 J -38238876.40 -38238876.38 -38238876.33 0.0141 0.0139
 Jupiter -109405-02-29 01:55 J -38238694.64 -38238694.42 -38238694.19 0.0512 0.0138
 Uranus -109405-09-03 13:40 J -38238507.18 -38238506.93 -38238506.68 0.0141 0.0028
 Uranus -109404-09-08 04:04 J -38238137.52 -38238137.33 -38238137.11 0.0142 0.0073
 Saturn -109403-01-30 11:45 J -38237993.10 -38237993.01 -38237992.90 0.0262 0.0238
 Jupiter -109400-08-19 11:45 J -38236696.19 -38236696.01 -38236695.84 0.0516 0.0316
 Neptune -109392-07-23 05:02 J -38233801.47 -38233801.29 -38233801.08 0.0088 0.0054
 Neptune -109391-07-25 05:31 J -38233434.49 -38233434.27 -38233434.03 0.0088 0.0032
 Neptune -109390-07-27 19:12 J -38233066.95 -38233066.70 -38233066.45 0.0088 0.0007
 Saturn -109389-07-24 19:40 J -38232703.90 -38232703.68 -38232703.45 0.0298 0.0007
 Neptune -109389-07-28 20:09 J -38232699.88 -38232699.66 -38232699.42 0.0088 0.0030
 Neptune -109388-07-31 06:43 J -38232332.36 -38232332.22 -38232332.03 0.0088 0.0067

Jupiter -109388-08-23 16:19 J -38232309.03 -38232308.82 -38232308.59 0.0514 0.0157
 Saturn -109374-01-25 05:16 J -38227406.54 -38227406.28 -38227406.02 0.0262 0.0006
 Uranus -109366-03-12 22:04 J -38224437.82 -38224437.58 -38224437.35 0.0138 0.0052
 Uranus -109365-03-16 13:12 J -38224068.19 -38224067.95 -38224067.69 0.0137 0.0050
 Saturn -109345-01-20 05:16 J -38216819.39 -38216819.28 -38216819.16 0.0263 0.0232
 Jupiter -109334-02-23 03:21 J -38212767.46 -38212767.36 -38212767.24 0.0510 0.0443
 Saturn -109330-07-27 02:24 J -38211152.63 -38211152.40 -38211152.17 0.0299 0.0062
 Jupiter -109322-02-28 06:00 J -38208379.50 -38208379.25 -38208379.01 0.0512 0.0050
 Uranus -109322-08-31 17:31 J -38208194.87 -38208194.77 -38208194.62 0.0141 0.0120
 Uranus -109321-09-04 01:55 J -38207825.66 -38207825.42 -38207825.17 0.0141 0.0029
 Mars -109320-07-13 13:55 J -38207513.07 -38207512.92 -38207512.77 0.1658 0.0787
 Uranus -109320-09-08 18:14 J -38207455.92 -38207455.74 -38207455.53 0.0142 0.0080
 Jupiter -109317-08-18 16:19 J -38206380.97 -38206380.82 -38206380.65 0.0516 0.0367
 Saturn -109315-01-26 09:36 J -38205855.33 -38205855.10 -38205854.85 0.0262 0.0065
 Neptune -109310-01-21 21:21 J -38204033.67 -38204033.61 -38204033.51 0.0089 0.0084
 Neptune -109309-01-24 07:26 J -38203666.42 -38203666.19 -38203665.94 0.0089 0.0041
 Neptune -109308-01-26 07:26 J -38203298.45 -38203298.19 -38203297.92 0.0089 0.0017
 Neptune -109307-01-28 17:31 J -38202931.02 -38202930.77 -38202930.52 0.0089 0.0026
 Neptune -109306-01-31 15:21 J -38202563.06 -38202562.86 -38202562.61 0.0089 0.0051
 Jupiter -109305-08-23 08:09 J -38201993.38 -38201993.16 -38201992.95 0.0514 0.0102
 Saturn -109301-07-19 18:14 J -38200566.82 -38200566.74 -38200566.65 0.0298 0.0277
 Jupiter -109293-08-27 13:55 J -38197605.93 -38197605.92 -38197605.91 0.0513 0.0512
 Saturn -109286-01-21 07:40 J -38195268.36 -38195268.18 -38195267.97 0.0263 0.0178
 Uranus -109282-03-13 11:02 J -38193756.28 -38193756.04 -38193755.79 0.0138 0.0040
 Uranus -109281-03-16 23:45 J -38193386.74 -38193386.51 -38193386.25 0.0137 0.0056
 Saturn -109271-07-27 22:48 J -38189601.77 -38189601.55 -38189601.33 0.0299 0.0125
 Saturn -109256-01-27 17:02 J -38184304.00 -38184303.79 -38184303.56 0.0262 0.0119
 Pluto -109253-01-30 15:36 J -38183206.10 -38183205.85 -38183205.57 0.0065 0.0010
 Saturn -109242-07-21 20:09 J -38179015.81 -38179015.66 -38179015.50 0.0298 0.0215
 Mars -109241-07-15 08:52 J -38178656.30 -38178656.13 -38178655.95 0.1657 0.0086

Jupiter -109239-02-27 07:40 J -38178064.42 -38178064.18 -38178063.94 0.0512 0.0006
 Uranus -109238-09-01 07:26 J -38177513.28 -38177513.19 -38177513.08 0.0141 0.0127
 Uranus -109237-09-04 13:55 J -38177144.17 -38177143.92 -38177143.66 0.0141 0.0013
 Uranus -109236-09-09 08:38 J -38176774.32 -38176774.14 -38176773.93 0.0142 0.0082
 Jupiter -109234-08-19 07:55 J -38176065.28 -38176065.17 -38176065.04 0.0516 0.0424
 Neptune -109228-07-22 09:21 J -38173901.22 -38173901.11 -38173900.96 0.0088 0.0074
 Saturn -109227-01-22 02:38 J -38173717.62 -38173717.39 -38173717.16 0.0263 0.0127
 Jupiter -109227-03-04 18:14 J -38173675.78 -38173675.74 -38173675.69 0.0513 0.0501
 Neptune -109227-07-24 21:50 J -38173533.80 -38173533.59 -38173533.36 0.0088 0.0042
 Neptune -109226-07-27 01:26 J -38173166.67 -38173166.44 -38173166.20 0.0088 0.0014
 Neptune -109225-07-28 08:38 J -38172799.38 -38172799.14 -38172798.88 0.0088 0.0018
 Neptune -109224-07-30 17:02 J -38172431.98 -38172431.79 -38172431.57 0.0088 0.0047
 Neptune -109223-08-01 19:40 J -38172064.79 -38172064.68 -38172064.55 0.0088 0.0077
 Jupiter -109222-08-23 12:28 J -38171678.21 -38171677.98 -38171677.75 0.0515 0.0037
 Saturn -109212-07-28 15:07 J -38168051.05 -38168050.87 -38168050.68 0.0299 0.0184
 Jupiter -109210-08-28 01:40 J -38167290.52 -38167290.43 -38167290.33 0.0513 0.0460
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 Uranus -109198-03-14 00:57 J -38163074.69 -38163074.46 -38163074.20 0.0138 0.0042
 Saturn -109197-01-29 18:14 J -38162752.93 -38162752.74 -38162752.54 0.0262 0.0171
 Uranus -109197-03-17 12:57 J -38162705.18 -38162704.96 -38162704.71 0.0137 0.0065
 Saturn -109183-07-22 19:40 J -38157464.88 -38157464.68 -38157464.48 0.0298 0.0156
 Saturn -109168-01-23 00:43 J -38152166.71 -38152166.47 -38152166.23 0.0263 0.0077
 Pluto -109166-07-30 06:14 J -38151248.43 -38151248.24 -38151248.02 0.0080 0.0043
 Mars -109162-07-18 08:09 J -38149799.26 -38149799.16 -38149799.06 0.1655 0.1395
 Jupiter -109156-02-26 22:48 J -38147748.79 -38147748.55 -38147748.31 0.0511 0.0049
 Uranus -109154-09-01 23:16 J -38146831.68 -38146831.53 -38146831.35 0.0141 0.0104
 Mars -109153-01-12 08:09 J -38146699.33 -38146699.16 -38146699.00 0.1856 0.1243
 Saturn -109153-07-29 12:28 J -38146500.11 -38146499.98 -38146499.84 0.0299 0.0240
 Uranus -109153-09-05 04:48 J -38146462.55 -38146462.30 -38146462.05 0.0141 0.0017
 Uranus -109152-09-10 00:28 J -38146092.64 -38146092.48 -38146092.29 0.0142 0.0097

Jupiter -109151-08-18 14:24 J -38145749.98 -38145749.90 -38145749.80 0.0517 0.0474
 Neptune -109145-01-23 11:31 J -38143766.19 -38143766.02 -38143765.80 0.0089 0.0062
 Neptune -109144-01-25 01:26 J -38143398.67 -38143398.44 -38143398.19 0.0089 0.0033
 Jupiter -109144-03-03 12:14 J -38143361.12 -38143360.99 -38143360.84 0.0513 0.0416
 Neptune -109143-01-27 20:24 J -38143030.93 -38143030.65 -38143030.37 0.0089 0.0004
 Neptune -109142-01-30 13:12 J -38142663.17 -38142662.95 -38142662.69 0.0089 0.0035
 Neptune -109141-02-02 02:52 J -38142295.53 -38142295.38 -38142295.20 0.0089 0.0071
 Jupiter -109139-08-23 06:14 J -38141362.46 -38141362.24 -38141362.03 0.0516 0.0007
 Saturn -109138-01-30 11:02 J -38141202.17 -38141202.04 -38141201.89 0.0262 0.0224
 Jupiter -109127-08-27 18:00 J -38136974.89 -38136974.75 -38136974.61 0.0513 0.0411
 Saturn -109124-07-23 11:02 J -38135914.26 -38135914.04 -38135913.81 0.0298 0.0098
 Uranus -109115-03-09 12:43 J -38132762.98 -38132762.97 -38132762.91 0.0139 0.0138
 Uranus -109114-03-14 17:02 J -38132393.05 -38132392.79 -38132392.53 0.0138 0.0022
 Uranus -109113-03-18 04:04 J -38132023.54 -38132023.33 -38132023.09 0.0137 0.0068
 Saturn -109109-01-25 03:07 J -38130615.61 -38130615.37 -38130615.12 0.0263 0.0027
 Saturn -109094-07-31 11:45 J -38124949.03 -38124949.01 -38124948.98 0.0299 0.0296
 Saturn -109080-01-18 18:43 J -38120028.77 -38120028.72 -38120028.66 0.0264 0.0258
 Jupiter -109073-02-26 17:45 J -38117434.00 -38117433.76 -38117433.53 0.0511 0.0128
 Uranus -109070-09-02 12:28 J -38116150.11 -38116149.98 -38116149.81 0.0141 0.0113
 Uranus -109069-09-05 18:00 J -38115780.99 -38115780.75 -38115780.50 0.0141 0.0003
 Jupiter -109068-08-18 07:40 J -38115434.20 -38115434.18 -38115434.15 0.0517 0.0513
 Uranus -109068-09-10 14:24 J -38115411.07 -38115410.90 -38115410.70 0.0142 0.0094
 Saturn -109065-07-24 04:19 J -38114363.55 -38114363.32 -38114363.09 0.0298 0.0038
 Neptune -109063-07-24 05:16 J -38113633.45 -38113633.28 -38113633.08 0.0088 0.0056
 Neptune -109062-07-26 09:50 J -38113266.32 -38113266.09 -38113265.86 0.0088 0.0034
 Jupiter -109061-03-03 04:33 J -38113045.47 -38113045.31 -38113045.15 0.0513 0.0372
 Neptune -109061-07-27 21:36 J -38112898.84 -38112898.60 -38112898.36 0.0088 0.0005
 Neptune -109060-07-29 21:50 J -38112531.82 -38112531.59 -38112531.34 0.0088 0.0027
 Neptune -109059-08-01 11:31 J -38112164.18 -38112164.02 -38112163.85 0.0088 0.0066
 Neptune -109058-08-03 12:00 J -38111797.01 -38111797.00 -38111796.94 0.0088 0.0088

Jupiter -109056-08-22 18:28 J -38111046.97 -38111046.73 -38111046.50 0.0516 0.0047
 Saturn -109050-01-26 02:09 J -38109064.67 -38109064.41 -38109064.15 0.0263 0.0025
 Jupiter -109044-08-26 23:31 J -38106659.68 -38106659.52 -38106659.36 0.0514 0.0351
 Mars -109036-07-15 01:26 J -38103780.62 -38103780.44 -38103780.25 0.1660 0.0226
 Uranus -109031-03-10 05:45 J -38102081.40 -38102081.26 -38102081.11 0.0139 0.0113
 Uranus -109030-03-15 08:38 J -38101711.40 -38101711.14 -38101710.87 0.0138 0.0025
 Uranus -109029-03-18 20:52 J -38101341.83 -38101341.63 -38101341.42 0.0137 0.0085
 Saturn -109021-01-20 16:04 J -38098477.98 -38098477.83 -38098477.67 0.0264 0.0208
 Pluto -109006-01-31 13:55 J -38092988.11 -38092987.92 -38092987.68 0.0065 0.0037
 Saturn -109006-07-26 07:26 J -38092812.42 -38092812.19 -38092811.97 0.0298 0.0024
 Pluto -109005-02-02 07:12 J -38092621.39 -38092621.20 -38092620.99 0.0065 0.0045

109TH MILLENNIUM BCE

This is a list of transits of Moon in the 109th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-108991-01-26 20:38 J	-38087513.89	-38087513.64	-38087513.39	0.0263	0.0081		
Jupiter	-108990-02-26 10:33 J	-38087118.29	-38087118.06	-38087117.84	0.0510	0.0169		
Uranus	-108986-09-03 02:24 J	-38085468.59	-38085468.40	-38085468.21	0.0141	0.0091		
Uranus	-108985-09-06 08:09 J	-38085099.40	-38085099.16	-38085098.92	0.0141	0.0005		
Uranus	-108984-09-11 04:04 J	-38084729.48	-38084729.33	-38084729.17	0.0142	0.0111		
Neptune	-108981-01-22 09:07 J	-38083866.16	-38083866.12	-38083866.03	0.0089	0.0086		

Neptune -108980-01-23 22:33 J -38083498.77 -38083498.56 -38083498.30 0.0089 0.0048
 Neptune -108979-01-26 21:07 J -38083130.87 -38083130.62 -38083130.35 0.0089 0.0019
 Neptune -108978-01-29 07:26 J -38082763.44 -38082763.19 -38082762.91 0.0089 0.0021
 Jupiter -108978-03-03 06:57 J -38082730.41 -38082730.21 -38082730.01 0.0512 0.0310
 Neptune -108977-02-01 07:26 J -38082395.40 -38082395.19 -38082394.95 0.0089 0.0048
 Saturn -108977-07-19 13:26 J -38082225.95 -38082225.94 -38082225.91 0.0297 0.0296
 Neptune -108976-02-02 17:02 J -38082027.81 -38082027.79 -38082027.75 0.0089 0.0088
 Jupiter -108973-08-22 00:57 J -38080731.67 -38080731.46 -38080731.25 0.0516 0.0108
 Saturn -108962-01-21 20:38 J -38076926.83 -38076926.64 -38076926.43 0.0264 0.0152
 Jupiter -108961-08-26 18:00 J -38076343.93 -38076343.75 -38076343.56 0.0515 0.0300
 Mars -108957-07-17 03:50 J -38074923.51 -38074923.34 -38074923.17 0.1659 0.0483
 Uranus -108947-03-10 21:50 J -38071399.71 -38071399.59 -38071399.45 0.0139 0.0118
 Saturn -108947-07-27 13:12 J -38071261.17 -38071260.95 -38071260.73 0.0297 0.0091
 Uranus -108946-03-15 23:31 J -38071029.79 -38071029.52 -38071029.25 0.0138 0.0003
 Uranus -108945-03-19 12:43 J -38070660.17 -38070659.97 -38070659.77 0.0137 0.0085
 Saturn -108932-01-27 20:24 J -38065962.86 -38065962.65 -38065962.43 0.0263 0.0139
 Saturn -108918-07-21 14:24 J -38060675.04 -38060674.90 -38060674.74 0.0297 0.0226
 Pluto -108918-08-02 11:45 J -38060663.18 -38060663.01 -38060662.79 0.0079 0.0051
 Jupiter -108907-02-25 03:36 J -38056803.56 -38056803.35 -38056803.13 0.0509 0.0261
 Saturn -108903-01-23 01:40 J -38055375.66 -38055375.43 -38055375.18 0.0264 0.0093
 Uranus -108902-09-03 13:40 J -38054787.11 -38054786.93 -38054786.75 0.0140 0.0099
 Uranus -108901-09-06 20:52 J -38054417.87 -38054417.63 -38054417.39 0.0141 0.0014
 Uranus -108900-09-11 15:36 J -38054048.03 -38054047.85 -38054047.68 0.0142 0.0103
 Neptune -108899-07-23 10:19 J -38053733.21 -38053733.07 -38053732.93 0.0088 0.0073
 Neptune -108898-07-25 23:16 J -38053365.73 -38053365.53 -38053365.32 0.0088 0.0049
 Neptune -108897-07-26 23:31 J -38052998.76 -38052998.52 -38052998.27 0.0088 0.0013
 Neptune -108896-07-29 12:00 J -38052631.25 -38052631.00 -38052630.75 0.0088 0.0011
 Jupiter -108895-03-02 09:21 J -38052415.32 -38052415.11 -38052414.90 0.0511 0.0221
 Neptune -108895-07-31 14:52 J -38052264.07 -38052263.88 -38052263.67 0.0088 0.0047
 Neptune -108894-08-02 22:48 J -38051896.67 -38051896.55 -38051896.37 0.0088 0.0072

Jupiter -108890-08-22 14:52 J -38050416.10 -38050415.88 -38050415.66 0.0517 0.0168
 Saturn -108888-07-28 17:31 J -38049709.97 -38049709.77 -38049709.56 0.0297 0.0164
 Jupiter -108878-08-26 18:43 J -38046028.92 -38046028.72 -38046028.52 0.0515 0.0233
 Saturn -108873-01-30 04:48 J -38044411.45 -38044411.30 -38044411.14 0.0263 0.0202
 Mars -108869-01-11 23:31 J -38042968.64 -38042968.52 -38042968.39 0.1851 0.1447
 Uranus -108863-03-11 11:02 J -38040718.21 -38040718.04 -38040717.86 0.0139 0.0098
 Uranus -108862-03-16 10:48 J -38040348.32 -38040348.05 -38040347.78 0.0138 0.0009
 Uranus -108861-03-20 02:24 J -38039978.55 -38039978.40 -38039978.22 0.0137 0.0103
 Saturn -108859-07-23 00:57 J -38039123.65 -38039123.46 -38039123.26 0.0297 0.0151
 Saturn -108844-01-24 03:21 J -38033824.63 -38033824.36 -38033824.09 0.0264 0.0026
 Mars -108831-07-14 04:33 J -38028905.41 -38028905.31 -38028905.21 0.1665 0.1328
 Saturn -108829-07-30 00:14 J -38028158.61 -38028158.49 -38028158.34 0.0297 0.0244
 Jupiter -108824-02-24 11:16 J -38026488.21 -38026488.03 -38026487.86 0.0509 0.0336
 Uranus -108818-09-04 02:24 J -38024105.59 -38024105.40 -38024105.17 0.0140 0.0080
 Uranus -108817-09-07 11:45 J -38023736.25 -38023736.01 -38023735.77 0.0141 0.0008
 Neptune -108816-01-23 03:21 J -38023598.53 -38023598.36 -38023598.16 0.0089 0.0064
 Uranus -108816-09-12 04:04 J -38023366.45 -38023366.33 -38023366.20 0.0142 0.0124
 Neptune -108815-01-25 13:12 J -38023231.18 -38023230.95 -38023230.71 0.0089 0.0040
 Neptune -108814-01-28 12:14 J -38022863.26 -38022862.99 -38022862.71 0.0089 0.0003
 Neptune -108813-01-30 23:45 J -38022495.74 -38022495.51 -38022495.25 0.0089 0.0028
 Neptune -108812-02-01 19:26 J -38022127.84 -38022127.69 -38022127.50 0.0089 0.0070
 Jupiter -108812-03-01 10:33 J -38022100.30 -38022100.06 -38022099.82 0.0511 0.0147
 Jupiter -108807-08-21 12:00 J -38020101.19 -38020101.00 -38020100.80 0.0517 0.0253
 Saturn -108800-07-24 17:02 J -38017572.01 -38017571.79 -38017571.56 0.0297 0.0063
 Jupiter -108795-08-26 05:31 J -38015713.49 -38015713.27 -38015713.06 0.0516 0.0149
 Mars -108790-01-15 08:52 J -38014110.27 -38014110.13 -38014109.98 0.1855 0.1239
 Saturn -108785-01-26 07:55 J -38012273.42 -38012273.17 -38012272.91 0.0264 0.0043
 Uranus -108779-03-12 00:28 J -38010036.63 -38010036.48 -38010036.30 0.0139 0.0103
 Uranus -108778-03-16 21:50 J -38009666.86 -38009666.59 -38009666.32 0.0138 0.0011
 Uranus -108777-03-20 16:04 J -38009297.00 -38009296.83 -38009296.65 0.0137 0.0098

Pluto -108759-02-01 17:02 J -38002769.93 -38002769.79 -38002769.59 0.0065 0.0049
 Pluto -108758-02-03 09:07 J -38002403.36 -38002403.12 -38002402.84 0.0065 0.0023
 Saturn -108756-01-20 08:38 J -38001686.30 -38001686.14 -38001685.96 0.0264 0.0200
 Mars -108752-07-16 00:14 J -38000048.67 -38000048.49 -38000048.32 0.1663 0.0096
 Jupiter -108741-02-24 07:12 J -37996173.33 -37996173.20 -37996173.05 0.0509 0.0419
 Saturn -108741-07-26 06:43 J -37996020.46 -37996020.22 -37996019.97 0.0297 0.0028
 Neptune -108734-07-25 02:52 J -37993465.55 -37993465.38 -37993465.21 0.0088 0.0062
 Uranus -108734-09-04 16:04 J -37993424.02 -37993423.83 -37993423.60 0.0140 0.0081
 Neptune -108733-07-26 12:28 J -37993098.21 -37993097.98 -37993097.74 0.0088 0.0036
 Uranus -108733-09-08 03:36 J -37993054.58 -37993054.35 -37993054.11 0.0141 0.0029
 Neptune -108732-07-28 18:28 J -37992730.96 -37992730.73 -37992730.49 0.0088 0.0002
 Uranus -108732-09-12 17:16 J -37992684.91 -37992684.78 -37992684.62 0.0142 0.0118
 Neptune -108731-07-30 23:02 J -37992363.78 -37992363.54 -37992363.29 0.0088 0.0026
 Neptune -108730-08-02 09:50 J -37991996.25 -37991996.09 -37991995.90 0.0088 0.0060
 Jupiter -108729-02-29 07:55 J -37991785.40 -37991785.17 -37991784.94 0.0510 0.0049
 Neptune -108729-08-03 10:48 J -37991629.09 -37991629.05 -37991628.97 0.0088 0.0086
 Saturn -108726-01-27 21:21 J -37990721.83 -37990721.61 -37990721.38 0.0264 0.0114
 Jupiter -108724-08-20 20:52 J -37989785.80 -37989785.63 -37989785.46 0.0518 0.0342
 Jupiter -108717-03-05 10:04 J -37987397.18 -37987397.08 -37987396.98 0.0512 0.0466
 Saturn -108712-07-20 21:07 J -37985433.72 -37985433.62 -37985433.52 0.0296 0.0265
 Jupiter -108712-08-25 00:00 J -37985398.72 -37985398.50 -37985398.27 0.0516 0.0065
 Jupiter -108700-08-29 17:45 J -37981010.84 -37981010.76 -37981010.67 0.0514 0.0473
 Saturn -108697-01-22 16:48 J -37980135.03 -37980134.80 -37980134.57 0.0264 0.0125
 Uranus -108695-03-12 14:38 J -37979355.08 -37979354.89 -37979354.68 0.0139 0.0087
 Uranus -108694-03-17 09:36 J -37978985.37 -37978985.10 -37978984.83 0.0138 0.0005
 Uranus -108693-03-21 06:43 J -37978615.33 -37978615.22 -37978615.08 0.0137 0.0118
 Saturn -108682-07-28 18:43 J -37974468.94 -37974468.72 -37974468.50 0.0297 0.0119
 Mars -108673-07-18 01:12 J -37971191.60 -37971191.45 -37971191.29 0.1661 0.0906
 Pluto -108671-08-03 18:28 J -37970444.95 -37970444.73 -37970444.48 0.0080 0.0029
 Saturn -108667-01-29 13:26 J -37969170.12 -37969169.94 -37969169.76 0.0264 0.0187

Saturn -108653-07-22 18:00 J -37963881.93 -37963881.75 -37963881.55 0.0296 0.0171
 Neptune -108652-01-21 20:52 J -37963698.68 -37963698.63 -37963698.56 0.0089 0.0086
 Neptune -108651-01-24 15:21 J -37963331.04 -37963330.86 -37963330.61 0.0089 0.0056
 Neptune -108650-01-27 08:38 J -37962963.39 -37962963.14 -37962962.88 0.0089 0.0019
 Uranus -108650-09-05 06:57 J -37962742.44 -37962742.21 -37962741.99 0.0140 0.0065
 Neptune -108649-01-29 23:02 J -37962595.81 -37962595.54 -37962595.25 0.0089 0.0012
 Uranus -108649-09-08 20:38 J -37962372.88 -37962372.64 -37962372.41 0.0141 0.0026
 Neptune -108648-01-31 19:40 J -37962227.89 -37962227.68 -37962227.45 0.0089 0.0047
 Uranus -108648-09-13 07:40 J -37962003.19 -37962003.18 -37962003.13 0.0142 0.0141
 Neptune -108647-02-03 06:00 J -37961860.35 -37961860.25 -37961860.10 0.0089 0.0079
 Jupiter -108646-02-28 03:50 J -37961470.59 -37961470.34 -37961470.09 0.0510 0.0051
 Jupiter -108641-08-19 17:02 J -37959470.91 -37959470.79 -37959470.66 0.0518 0.0423
 Saturn -108638-01-24 01:26 J -37958583.69 -37958583.44 -37958583.18 0.0264 0.0048
 Jupiter -108634-03-05 02:24 J -37957082.56 -37957082.40 -37957082.24 0.0512 0.0377
 Jupiter -108629-08-24 09:21 J -37955083.33 -37955083.11 -37955082.89 0.0517 0.0023
 Mars -108626-07-13 10:33 J -37954030.11 -37954030.06 -37954030.01 0.1670 0.1600
 Saturn -108623-07-30 10:04 J -37952917.24 -37952917.08 -37952916.92 0.0297 0.0212
 Jupiter -108617-08-28 11:31 J -37950696.17 -37950696.02 -37950695.86 0.0515 0.0374
 Uranus -108611-03-13 06:14 J -37948673.43 -37948673.24 -37948673.03 0.0139 0.0085
 Uranus -108610-03-17 23:02 J -37948303.81 -37948303.54 -37948303.28 0.0138 0.0025
 Uranus -108609-03-21 22:19 J -37947933.69 -37947933.57 -37947933.40 0.0137 0.0113
 Saturn -108608-01-30 23:02 J -37947618.59 -37947618.54 -37947618.48 0.0264 0.0257
 Saturn -108594-07-25 10:33 J -37942330.28 -37942330.06 -37942329.82 0.0296 0.0080
 Saturn -108579-01-25 16:48 J -37937032.05 -37937031.80 -37937031.55 0.0264 0.0026
 Neptune -108570-07-24 10:48 J -37933565.16 -37933565.05 -37933564.90 0.0088 0.0077
 Neptune -108569-07-25 21:07 J -37933197.80 -37933197.62 -37933197.42 0.0088 0.0056
 Neptune -108568-07-27 23:02 J -37932830.78 -37932830.54 -37932830.28 0.0088 0.0017
 Neptune -108567-07-30 12:14 J -37932463.23 -37932462.99 -37932462.74 0.0088 0.0005
 Neptune -108566-08-01 12:14 J -37932096.19 -37932095.99 -37932095.76 0.0088 0.0045
 Uranus -108566-09-05 21:36 J -37932060.82 -37932060.60 -37932060.36 0.0140 0.0061

Neptune -108565-08-03 00:57 J -37931728.61 -37931728.46 -37931728.27 0.0088 0.0066
 Uranus -108565-09-09 13:12 J -37931691.17 -37931690.95 -37931690.71 0.0141 0.0046
 Saturn -108564-08-01 04:04 J -37931365.33 -37931365.33 -37931365.30 0.0298 0.0297
 Uranus -108564-09-13 22:04 J -37931321.64 -37931321.58 -37931321.49 0.0142 0.0135
 Jupiter -108563-02-27 01:55 J -37931155.64 -37931155.42 -37931155.19 0.0509 0.0134
 Jupiter -108558-08-20 01:12 J -37929155.46 -37929155.45 -37929155.42 0.0519 0.0516
 Jupiter -108551-03-04 07:26 J -37926767.39 -37926767.19 -37926766.98 0.0511 0.0288
 Saturn -108550-01-20 16:04 J -37926444.98 -37926444.83 -37926444.66 0.0265 0.0208
 Mars -108547-07-15 17:31 J -37925172.94 -37925172.77 -37925172.61 0.1667 0.0804
 Jupiter -108546-08-24 02:24 J -37924768.62 -37924768.40 -37924768.18 0.0518 0.0117
 Saturn -108535-07-26 18:57 J -37920778.95 -37920778.71 -37920778.47 0.0297 0.0002
 Jupiter -108534-08-28 18:57 J -37920380.88 -37920380.71 -37920380.52 0.0516 0.0294
 Uranus -108527-03-13 22:33 J -37917991.76 -37917991.56 -37917991.32 0.0139 0.0072
 Uranus -108526-03-18 13:55 J -37917622.18 -37917621.92 -37917621.65 0.0138 0.0023
 Uranus -108525-03-22 14:52 J -37917251.91 -37917251.88 -37917251.81 0.0138 0.0135
 Saturn -108520-01-27 08:38 J -37915480.38 -37915480.14 -37915479.91 0.0264 0.0097
 Pluto -108512-02-03 00:57 J -37912551.55 -37912551.46 -37912551.31 0.0065 0.0058
 Pluto -108511-02-04 16:33 J -37912185.06 -37912184.81 -37912184.52 0.0065 0.0018
 Mars -108506-01-14 11:31 J -37910380.25 -37910380.02 -37910379.78 0.1850 0.0273
 Saturn -108491-01-21 21:21 J -37904893.82 -37904893.61 -37904893.38 0.0264 0.0139
 Neptune -108487-01-23 16:33 J -37903430.95 -37903430.81 -37903430.63 0.0089 0.0070
 Neptune -108486-01-26 03:36 J -37903063.57 -37903063.35 -37903063.09 0.0089 0.0043
 Neptune -108485-01-29 03:36 J -37902695.61 -37902695.35 -37902695.08 0.0089 0.0003
 Neptune -108484-01-30 12:57 J -37902328.21 -37902327.96 -37902327.69 0.0089 0.0024
 Neptune -108483-02-02 12:28 J -37901960.14 -37901959.98 -37901959.78 0.0089 0.0066
 Uranus -108482-09-06 11:45 J -37901379.24 -37901379.01 -37901378.77 0.0140 0.0050
 Uranus -108481-09-10 04:48 J -37901009.52 -37901009.30 -37901009.06 0.0141 0.0044
 Jupiter -108480-02-26 05:16 J -37900840.50 -37900840.28 -37900840.05 0.0509 0.0217
 Saturn -108476-07-28 02:09 J -37899227.64 -37899227.41 -37899227.19 0.0297 0.0075
 Jupiter -108468-03-02 19:26 J -37896452.90 -37896452.69 -37896452.46 0.0511 0.0188

Mars -108468-07-17 18:43 J -37896315.89 -37896315.72 -37896315.56 0.1665 0.0596
 Jupiter -108463-08-23 16:48 J -37894453.01 -37894452.80 -37894452.60 0.0518 0.0185
 Saturn -108461-01-29 17:02 J -37893928.98 -37893928.79 -37893928.57 0.0264 0.0163
 Jupiter -108451-08-27 23:02 J -37890065.75 -37890065.54 -37890065.33 0.0516 0.0222
 Saturn -108447-07-22 11:45 J -37888641.14 -37888641.01 -37888640.86 0.0297 0.0241
 Uranus -108443-03-14 14:52 J -37887310.10 -37887309.88 -37887309.64 0.0139 0.0065
 Uranus -108442-03-19 05:02 J -37886940.53 -37886940.29 -37886940.02 0.0138 0.0044
 Uranus -108441-03-23 07:26 J -37886570.26 -37886570.19 -37886570.09 0.0138 0.0130
 Saturn -108432-01-23 05:02 J -37883342.53 -37883342.29 -37883342.05 0.0264 0.0075
 Pluto -108424-08-05 04:48 J -37880226.53 -37880226.30 -37880226.04 0.0080 0.0022
 Saturn -108417-07-29 10:48 J -37877676.25 -37877676.05 -37877675.85 0.0297 0.0140
 Neptune -108405-07-24 23:02 J -37873297.66 -37873297.54 -37873297.36 0.0088 0.0071
 Neptune -108404-07-27 12:57 J -37872930.17 -37872929.96 -37872929.72 0.0088 0.0038
 Neptune -108403-07-29 14:09 J -37872563.15 -37872562.91 -37872562.67 0.0088 0.0009
 Saturn -108402-01-30 18:57 J -37872377.83 -37872377.71 -37872377.56 0.0263 0.0224
 Neptune -108402-08-01 01:26 J -37872195.68 -37872195.44 -37872195.19 0.0088 0.0024
 Neptune -108401-08-02 06:00 J -37871828.43 -37871828.25 -37871828.04 0.0088 0.0052
 Neptune -108400-08-04 12:57 J -37871461.03 -37871460.96 -37871460.88 0.0088 0.0084
 Uranus -108398-09-07 00:43 J -37870697.70 -37870697.47 -37870697.23 0.0140 0.0044
 Jupiter -108397-02-25 22:19 J -37870525.75 -37870525.57 -37870525.37 0.0509 0.0306
 Uranus -108397-09-10 18:14 J -37870327.96 -37870327.74 -37870327.52 0.0141 0.0058
 Mars -108389-07-19 13:55 J -37867458.99 -37867458.92 -37867458.84 0.1663 0.1485
 Saturn -108388-07-23 10:48 J -37867090.23 -37867090.05 -37867089.85 0.0297 0.0181
 Jupiter -108385-03-02 09:36 J -37866137.33 -37866137.10 -37866136.86 0.0510 0.0124
 Jupiter -108380-08-22 19:26 J -37864137.88 -37864137.69 -37864137.48 0.0518 0.0261
 Saturn -108373-01-25 13:55 J -37861791.16 -37861790.92 -37861790.67 0.0264 0.0016
 Jupiter -108368-08-27 05:02 J -37859750.50 -37859750.29 -37859750.09 0.0516 0.0151
 Uranus -108359-03-15 03:50 J -37856628.57 -37856628.34 -37856628.09 0.0139 0.0055
 Uranus -108358-03-19 18:00 J -37856258.99 -37856258.75 -37856258.49 0.0138 0.0041
 Saturn -108358-07-31 14:38 J -37856125.06 -37856124.89 -37856124.71 0.0297 0.0194

Saturn -108344-01-19 06:43 J -37851204.32 -37851204.22 -37851204.11 0.0265 0.0241
 Mars -108342-07-14 15:07 J -37850297.99 -37850297.87 -37850297.76 0.1672 0.1203
 Saturn -108329-07-24 07:55 J -37845539.37 -37845539.17 -37845538.95 0.0297 0.0128
 Neptune -108323-01-22 10:19 J -37843531.10 -37843531.07 -37843531.00 0.0089 0.0087
 Neptune -108322-01-25 10:33 J -37843163.25 -37843163.06 -37843162.86 0.0089 0.0061
 Neptune -108321-01-27 20:38 J -37842795.90 -37842795.64 -37842795.38 0.0089 0.0020
 Neptune -108320-01-29 18:14 J -37842428.02 -37842427.74 -37842427.46 0.0089 0.0006
 Neptune -108319-02-01 07:12 J -37842060.41 -37842060.20 -37842059.96 0.0089 0.0046
 Neptune -108318-02-04 01:26 J -37841692.58 -37841692.44 -37841692.27 0.0089 0.0073
 Uranus -108315-09-03 10:19 J -37840385.15 -37840385.07 -37840384.97 0.0139 0.0130
 Saturn -108314-01-26 18:14 J -37840240.00 -37840239.74 -37840239.48 0.0264 0.0041
 Jupiter -108314-02-25 14:09 J -37840210.08 -37840209.91 -37840209.73 0.0508 0.0355
 Uranus -108314-09-07 13:12 J -37840016.18 -37840015.95 -37840015.71 0.0140 0.0038
 Uranus -108313-09-11 07:12 J -37839646.42 -37839646.20 -37839645.97 0.0141 0.0057
 Jupiter -108302-03-02 07:11 J -37835822.44 -37835822.20 -37835821.96 0.0510 0.0062
 Saturn -108299-08-01 10:04 J -37834574.21 -37834574.08 -37834573.94 0.0297 0.0244
 Jupiter -108297-08-22 05:45 J -37833822.42 -37833822.26 -37833822.09 0.0519 0.0329
 Jupiter -108290-03-07 10:33 J -37831434.09 -37831434.06 -37831434.01 0.0511 0.0503
 Saturn -108285-01-21 06:43 J -37829653.40 -37829653.22 -37829653.04 0.0265 0.0185
 Jupiter -108285-08-26 21:50 J -37829434.82 -37829434.59 -37829434.36 0.0517 0.0114
 Uranus -108275-03-15 14:52 J -37825947.12 -37825946.88 -37825946.62 0.0139 0.0049
 Uranus -108274-03-20 05:02 J -37825577.51 -37825577.29 -37825577.04 0.0138 0.0056
 Saturn -108270-07-26 08:09 J -37823988.37 -37823988.16 -37823987.94 0.0296 0.0079
 Pluto -108265-02-05 10:48 J -37822333.13 -37822333.05 -37822332.93 0.0065 0.0060
 Pluto -108264-02-06 04:04 J -37821966.58 -37821966.33 -37821966.06 0.0065 0.0023
 Mars -108263-07-16 13:11 J -37821441.12 -37821440.95 -37821440.77 0.1670 0.0418
 Saturn -108255-01-27 13:55 J -37818689.16 -37818688.92 -37818688.66 0.0264 0.0092
 Neptune -108241-07-24 14:09 J -37813396.97 -37813396.91 -37813396.78 0.0088 0.0082
 Neptune -108240-07-26 16:33 J -37813029.97 -37813029.81 -37813029.62 0.0088 0.0060
 Saturn -108240-08-02 01:40 J -37813023.48 -37813023.43 -37813023.36 0.0297 0.0286

Neptune -108239-07-29 02:09 J -37812662.65 -37812662.41 -37812662.15 0.0088 0.0022
 Neptune -108238-07-31 09:07 J -37812295.36 -37812295.12 -37812294.88 0.0088 0.0002
 Neptune -108237-08-01 13:11 J -37811928.16 -37811927.95 -37811927.71 0.0088 0.0040
 Neptune -108236-08-04 00:57 J -37811560.62 -37811560.46 -37811560.28 0.0088 0.0063
 Jupiter -108231-02-24 06:57 J -37809895.33 -37809895.21 -37809895.08 0.0507 0.0436
 Uranus -108231-09-04 00:00 J -37809703.57 -37809703.50 -37809703.39 0.0139 0.0130
 Uranus -108230-09-08 02:52 J -37809334.61 -37809334.38 -37809334.13 0.0140 0.0029
 Uranus -108229-09-11 20:24 J -37808964.85 -37808964.65 -37808964.42 0.0141 0.0070
 Saturn -108226-01-22 10:48 J -37808102.25 -37808102.05 -37808101.83 0.0265 0.0134
 Mars -108222-01-13 00:00 J -37806650.68 -37806650.50 -37806650.31 0.1845 0.0677
 Jupiter -108219-03-01 17:02 J -37805507.02 -37805506.79 -37805506.55 0.0509 0.0017
 Jupiter -108214-08-22 22:19 J -37803506.72 -37803506.57 -37803506.41 0.0519 0.0375
 Saturn -108211-07-27 08:38 J -37802437.37 -37802437.14 -37802436.91 0.0296 0.0031
 Jupiter -108207-03-06 16:04 J -37801118.93 -37801118.83 -37801118.71 0.0511 0.0457
 Jupiter -108202-08-27 04:33 J -37799119.53 -37799119.31 -37799119.09 0.0517 0.0062
 Saturn -108196-01-28 09:21 J -37797138.33 -37797138.11 -37797137.89 0.0264 0.0139
 Uranus -108191-03-15 23:45 J -37795265.76 -37795265.51 -37795265.26 0.0139 0.0046
 Uranus -108190-03-20 15:07 J -37794896.11 -37794895.87 -37794895.63 0.0138 0.0053
 Mars -108184-07-18 18:00 J -37792583.92 -37792583.75 -37792583.58 0.1668 0.0828
 Pluto -108177-08-06 22:04 J -37790007.79 -37790007.58 -37790007.36 0.0079 0.0042
 Saturn -108167-01-23 12:14 J -37786551.23 -37786550.99 -37786550.74 0.0265 0.0084
 Neptune -108158-01-24 06:28 J -37783263.36 -37783263.23 -37783263.09 0.0089 0.0075
 Neptune -108157-01-27 00:43 J -37782895.69 -37782895.47 -37782895.21 0.0089 0.0044
 Neptune -108156-01-28 17:45 J -37782528.01 -37782527.76 -37782527.49 0.0089 0.0007
 Neptune -108155-01-31 07:40 J -37782160.44 -37782160.18 -37782159.90 0.0089 0.0024
 Neptune -108154-02-03 04:04 J -37781792.50 -37781792.33 -37781792.12 0.0089 0.0062
 Saturn -108152-07-28 03:21 J -37780886.60 -37780886.36 -37780886.12 0.0296 0.0018
 Jupiter -108148-02-24 00:43 J -37779579.53 -37779579.47 -37779579.39 0.0507 0.0484
 Uranus -108147-09-04 13:26 J -37779022.06 -37779021.94 -37779021.78 0.0139 0.0114
 Uranus -108146-09-08 17:02 J -37778653.02 -37778652.79 -37778652.54 0.0140 0.0025

Uranus -108145-09-12 10:19 J -37778283.27 -37778283.07 -37778282.84 0.0141 0.0072
 Saturn -108137-01-30 11:02 J -37775587.21 -37775587.04 -37775586.86 0.0264 0.0184
 Jupiter -108136-02-28 21:35 J -37775191.85 -37775191.60 -37775191.35 0.0509 0.0059
 Jupiter -108131-08-22 02:38 J -37773191.49 -37773191.39 -37773191.27 0.0519 0.0442
 Jupiter -108124-03-06 01:40 J -37770803.56 -37770803.43 -37770803.29 0.0511 0.0414
 Saturn -108123-07-22 08:38 J -37770300.18 -37770300.14 -37770300.08 0.0295 0.0288
 Jupiter -108119-08-26 21:07 J -37768803.84 -37768803.62 -37768803.39 0.0518 0.0016
 Saturn -108108-01-24 06:14 J -37765000.50 -37765000.24 -37764999.97 0.0265 0.0040
 Uranus -108107-03-16 09:50 J -37764584.34 -37764584.09 -37764583.82 0.0139 0.0037
 Jupiter -108107-08-31 02:38 J -37764416.45 -37764416.39 -37764416.33 0.0516 0.0492
 Uranus -108106-03-21 02:38 J -37764214.61 -37764214.39 -37764214.16 0.0138 0.0063
 Saturn -108093-07-28 21:35 J -37759335.82 -37759335.60 -37759335.36 0.0296 0.0068
 Saturn -108078-01-31 13:55 J -37754036.03 -37754035.92 -37754035.78 0.0264 0.0229
 Neptune -108076-07-26 03:35 J -37753129.47 -37753129.35 -37753129.20 0.0088 0.0075
 Neptune -108075-07-28 12:43 J -37752762.18 -37752761.97 -37752761.75 0.0088 0.0039
 Neptune -108074-07-30 15:07 J -37752395.11 -37752394.87 -37752394.62 0.0088 0.0015
 Neptune -108073-08-01 03:50 J -37752027.57 -37752027.34 -37752027.09 0.0088 0.0022
 Neptune -108072-08-03 04:04 J -37751660.53 -37751660.33 -37751660.11 0.0088 0.0046
 Neptune -108071-08-05 17:02 J -37751292.85 -37751292.79 -37751292.67 0.0088 0.0083
 Saturn -108064-07-23 12:00 J -37748749.13 -37748749.00 -37748748.86 0.0295 0.0235
 Uranus -108063-09-05 04:19 J -37748340.45 -37748340.32 -37748340.16 0.0139 0.0115
 Uranus -108062-09-09 08:38 J -37747971.38 -37747971.14 -37747970.90 0.0140 0.0013
 Uranus -108061-09-13 00:43 J -37747601.66 -37747601.47 -37747601.25 0.0141 0.0083
 Mars -108058-07-16 07:40 J -37746565.34 -37746565.18 -37746565.01 0.1675 0.0726
 Jupiter -108053-02-29 02:52 J -37744876.60 -37744876.38 -37744876.16 0.0508 0.0140
 Saturn -108049-01-26 01:55 J -37743449.68 -37743449.42 -37743449.16 0.0265 0.0005
 Jupiter -108048-08-21 21:21 J -37742875.68 -37742875.61 -37742875.55 0.0520 0.0494
 Jupiter -108041-03-05 04:19 J -37740488.50 -37740488.32 -37740488.12 0.0510 0.0334
 Jupiter -108036-08-26 01:55 J -37738488.64 -37738488.42 -37738488.20 0.0518 0.0039
 Saturn -108034-07-31 00:14 J -37737784.69 -37737784.49 -37737784.28 0.0296 0.0128

Uranus -108024-03-11 18:57 J -37734272.78 -37734272.71 -37734272.60 0.0140 0.0131
 Jupiter -108024-08-30 19:40 J -37734100.79 -37734100.68 -37734100.56 0.0516 0.0444
 Uranus -108023-03-16 20:09 J -37733902.91 -37733902.66 -37733902.39 0.0139 0.0038
 Uranus -108022-03-21 14:52 J -37733533.10 -37733532.88 -37733532.65 0.0138 0.0064
 Saturn -108020-01-19 18:14 J -37732862.83 -37732862.74 -37732862.62 0.0266 0.0241
 Pluto -108018-02-07 00:57 J -37732114.63 -37732114.46 -37732114.24 0.0065 0.0044
 Pluto -108017-02-08 19:55 J -37731747.89 -37731747.67 -37731747.39 0.0065 0.0030
 Saturn -108005-07-24 13:26 J -37727198.13 -37727197.94 -37727197.74 0.0295 0.0173

108TH MILLENNIUM BCE

This is a list of transits of Moon in the 108th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-107994-01-23 06:43 J	-37723363.22	-37723363.22	-37723363.19	0.0089	0.0089		
Neptune	-107993-01-26 03:35 J	-37722995.52	-37722995.35	-37722995.16	0.0089	0.0064		
Neptune	-107992-01-27 15:35 J	-37722628.12	-37722627.85	-37722627.58	0.0089	0.0021		
Neptune	-107991-01-30 14:52 J	-37722260.14	-37722259.88	-37722259.61	0.0089	0.0003		
Saturn	-107990-01-27 06:14 J	-37721898.48	-37721898.24	-37721898.00	0.0266	0.0054		
Neptune	-107990-02-02 00:00 J	-37721892.71	-37721892.50	-37721892.25	0.0089	0.0046		
Neptune	-107989-02-04 23:45 J	-37721524.65	-37721524.51	-37721524.33	0.0089	0.0071		
Mars	-107979-07-18 05:02 J	-37717708.46	-37717708.29	-37717708.12	0.1673	0.0190		
Uranus	-107979-09-05 17:31 J	-37717658.94	-37717658.77	-37717658.58	0.0139	0.0097		

Uranus -107978-09-09 23:31 J -37717289.76 -37717289.52 -37717289.28 0.0140 0.0012
 Uranus -107977-09-13 14:38 J -37716920.07 -37716919.89 -37716919.67 0.0141 0.0087
 Saturn -107975-08-01 09:50 J -37716233.26 -37716233.09 -37716232.91 0.0296 0.0194
 Jupiter -107970-02-28 06:43 J -37714561.45 -37714561.22 -37714560.99 0.0508 0.0205
 Saturn -107961-01-21 17:45 J -37711311.94 -37711311.76 -37711311.57 0.0266 0.0189
 Jupiter -107958-03-05 06:43 J -37710173.42 -37710173.22 -37710173.02 0.0510 0.0279
 Jupiter -107953-08-25 14:52 J -37708173.09 -37708172.88 -37708172.66 0.0518 0.0107
 Saturn -107946-07-26 14:52 J -37705647.10 -37705646.88 -37705646.65 0.0295 0.0105
 Jupiter -107941-08-29 19:26 J -37703785.85 -37703785.69 -37703785.53 0.0517 0.0368
 Uranus -107940-03-12 09:07 J -37703591.15 -37703591.12 -37703591.04 0.0140 0.0136
 Uranus -107939-03-17 08:38 J -37703221.41 -37703221.14 -37703220.87 0.0139 0.0024
 Mars -107938-01-12 16:19 J -37702920.01 -37702919.82 -37702919.62 0.1840 0.0851
 Uranus -107938-03-22 05:16 J -37702851.48 -37702851.28 -37702851.05 0.0138 0.0072
 Saturn -107931-01-28 14:24 J -37700347.13 -37700346.90 -37700346.67 0.0266 0.0106
 Pluto -107931-08-07 09:50 J -37700156.19 -37700156.09 -37700155.95 0.0080 0.0070
 Pluto -107930-08-09 17:02 J -37699788.92 -37699788.79 -37699788.60 0.0079 0.0061
 Saturn -107916-08-02 20:09 J -37694681.74 -37694681.66 -37694681.55 0.0296 0.0269
 Neptune -107912-07-25 16:48 J -37693228.84 -37693228.80 -37693228.72 0.0088 0.0086
 Neptune -107911-07-27 17:45 J -37692861.92 -37692861.76 -37692861.56 0.0088 0.0060
 Neptune -107910-07-30 07:26 J -37692494.41 -37692494.19 -37692493.94 0.0088 0.0026
 Neptune -107909-07-31 08:24 J -37692127.39 -37692127.15 -37692126.91 0.0088 0.0001
 Neptune -107908-08-02 19:55 J -37691759.88 -37691759.67 -37691759.42 0.0088 0.0036
 Neptune -107907-08-05 00:14 J -37691392.64 -37691392.49 -37691392.31 0.0088 0.0063
 Saturn -107902-01-22 19:11 J -37689760.91 -37689760.70 -37689760.47 0.0266 0.0135
 Mars -107900-07-19 23:31 J -37688851.64 -37688851.52 -37688851.40 0.1671 0.1186
 Uranus -107895-09-06 06:00 J -37686977.42 -37686977.25 -37686977.08 0.0139 0.0103
 Uranus -107894-09-10 13:40 J -37686608.17 -37686607.93 -37686607.69 0.0140 0.0002
 Uranus -107893-09-14 02:24 J -37686238.58 -37686238.40 -37686238.20 0.0141 0.0092
 Jupiter -107887-02-27 08:24 J -37684246.33 -37684246.15 -37684245.95 0.0507 0.0279
 Saturn -107887-07-28 01:26 J -37684095.66 -37684095.44 -37684095.21 0.0295 0.0027

Jupiter -107875-03-04 10:33 J -37679858.29 -37679858.06 -37679857.82 0.0509 0.0188
 Saturn -107872-01-29 18:57 J -37678795.90 -37678795.71 -37678795.49 0.0266 0.0163
 Jupiter -107870-08-25 12:28 J -37677858.19 -37677857.98 -37677857.77 0.0520 0.0189
 Mars -107859-01-16 07:26 J -37674061.20 -37674061.19 -37674061.17 0.1845 0.1834
 Jupiter -107858-08-30 04:33 J -37673470.48 -37673470.31 -37673470.12 0.0518 0.0298
 Uranus -107856-03-12 22:19 J -37672909.70 -37672909.57 -37672909.42 0.0140 0.0116
 Uranus -107855-03-17 18:00 J -37672540.01 -37672539.75 -37672539.48 0.0139 0.0028
 Uranus -107854-03-22 17:45 J -37672169.96 -37672169.76 -37672169.54 0.0138 0.0078
 Saturn -107843-01-24 06:28 J -37668209.46 -37668209.23 -37668208.99 0.0266 0.0072
 Neptune -107829-01-24 23:31 J -37663095.61 -37663095.52 -37663095.38 0.0089 0.0080
 Neptune -107828-01-26 23:31 J -37662727.74 -37662727.52 -37662727.26 0.0089 0.0042
 Saturn -107828-07-29 19:40 J -37662543.90 -37662543.68 -37662543.46 0.0295 0.0060
 Neptune -107827-01-29 10:19 J -37662360.33 -37662360.07 -37662359.80 0.0089 0.0011
 Neptune -107826-02-01 07:40 J -37661992.44 -37661992.18 -37661991.90 0.0089 0.0026
 Neptune -107825-02-03 21:35 J -37661624.78 -37661624.60 -37661624.39 0.0089 0.0058
 Saturn -107813-01-31 23:45 J -37657244.64 -37657244.51 -37657244.35 0.0266 0.0222
 Uranus -107811-09-06 15:50 J -37656296.02 -37656295.84 -37656295.62 0.0139 0.0085
 Uranus -107810-09-11 02:52 J -37655926.62 -37655926.38 -37655926.14 0.0140 0.0005
 Uranus -107809-09-14 12:43 J -37655557.13 -37655556.97 -37655556.77 0.0141 0.0100
 Jupiter -107804-02-26 08:24 J -37653931.32 -37653931.15 -37653930.98 0.0506 0.0370
 Saturn -107799-07-24 11:16 J -37651957.18 -37651957.03 -37651956.86 0.0294 0.0219
 Jupiter -107792-03-03 01:55 J -37649543.66 -37649543.42 -37649543.19 0.0508 0.0092
 Jupiter -107787-08-24 22:33 J -37647542.75 -37647542.56 -37647542.37 0.0520 0.0261
 Saturn -107784-01-25 22:48 J -37646657.80 -37646657.55 -37646657.30 0.0266 0.0006
 Jupiter -107775-08-29 04:04 J -37643155.54 -37643155.33 -37643155.11 0.0518 0.0207
 Mars -107774-07-17 01:55 J -37642833.60 -37642833.42 -37642833.24 0.1678 0.0572
 Uranus -107772-03-13 09:35 J -37642228.21 -37642228.10 -37642227.98 0.0140 0.0125
 Pluto -107771-02-08 18:43 J -37641895.93 -37641895.72 -37641895.46 0.0065 0.0028
 Uranus -107771-03-18 03:50 J -37641858.61 -37641858.34 -37641858.07 0.0139 0.0011
 Pluto -107770-02-10 14:24 J -37641529.09 -37641528.90 -37641528.72 0.0065 0.0049

Uranus -107770-03-23 06:14 J -37641488.43 -37641488.24 -37641488.02 0.0138 0.0078
 Saturn -107769-07-31 11:45 J -37640992.20 -37640992.01 -37640991.79 0.0296 0.0149
 Saturn -107755-01-20 14:09 J -37636071.04 -37636070.91 -37636070.77 0.0267 0.0227
 Neptune -107747-07-27 12:00 J -37632961.12 -37632961.00 -37632960.87 0.0088 0.0077
 Neptune -107746-07-29 13:40 J -37632594.12 -37632593.93 -37632593.69 0.0088 0.0039
 Neptune -107745-07-30 22:48 J -37632226.79 -37632226.55 -37632226.29 0.0088 0.0016
 Neptune -107744-08-02 06:00 J -37631859.47 -37631859.25 -37631859.01 0.0088 0.0023
 Neptune -107743-08-04 10:04 J -37631492.29 -37631492.08 -37631491.85 0.0088 0.0044
 Neptune -107742-08-06 21:50 J -37631124.65 -37631124.59 -37631124.49 0.0088 0.0084
 Saturn -107740-07-26 02:38 J -37630405.59 -37630405.39 -37630405.18 0.0294 0.0131
 Uranus -107727-09-07 01:55 J -37625614.59 -37625614.42 -37625614.22 0.0139 0.0094
 Uranus -107726-09-11 14:52 J -37625245.11 -37625244.88 -37625244.64 0.0140 0.0012
 Saturn -107725-01-28 12:28 J -37625106.24 -37625105.98 -37625105.73 0.0266 0.0064
 Uranus -107725-09-14 22:33 J -37624875.73 -37624875.56 -37624875.37 0.0140 0.0097
 Jupiter -107721-02-26 01:26 J -37623616.53 -37623616.44 -37623616.34 0.0506 0.0462
 Saturn -107710-08-03 00:14 J -37619440.62 -37619440.49 -37619440.34 0.0296 0.0240
 Jupiter -107709-03-02 08:52 J -37619228.38 -37619228.13 -37619227.89 0.0508 0.0012
 Jupiter -107704-08-23 18:14 J -37617227.91 -37617227.74 -37617227.57 0.0520 0.0359
 Jupiter -107697-03-07 00:14 J -37614840.51 -37614840.49 -37614840.45 0.0509 0.0503
 Saturn -107696-01-22 03:21 J -37614519.56 -37614519.36 -37614519.16 0.0266 0.0160
 Mars -107695-07-19 08:52 J -37613976.31 -37613976.13 -37613975.95 0.1676 0.0663
 Jupiter -107692-08-28 04:48 J -37612840.52 -37612840.30 -37612840.09 0.0519 0.0111
 Uranus -107688-03-13 16:19 J -37611546.96 -37611546.82 -37611546.64 0.0140 0.0109
 Uranus -107687-03-18 09:21 J -37611177.37 -37611177.11 -37611176.85 0.0139 0.0023
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 Pluto -107684-08-09 11:31 J -37609937.26 -37609937.02 -37609936.79 0.0080 0.0025
 Saturn -107681-07-27 21:21 J -37608853.83 -37608853.61 -37608853.38 0.0294 0.0042
 Saturn -107666-01-29 21:07 J -37603554.84 -37603554.62 -37603554.38 0.0265 0.0131
 Neptune -107664-01-25 22:19 J -37602827.73 -37602827.57 -37602827.36 0.0089 0.0063
 Neptune -107663-01-28 15:50 J -37602460.10 -37602459.84 -37602459.56 0.0089 0.0023

Neptune -107662-01-31 10:19 J -37602092.33 -37602092.07 -37602091.81 0.0089 0.0005
 Neptune -107661-02-02 23:16 J -37601724.76 -37601724.53 -37601724.28 0.0089 0.0045
 Neptune -107660-02-04 21:35 J -37601356.74 -37601356.60 -37601356.44 0.0089 0.0072
 Mars -107654-01-10 22:33 J -37599190.66 -37599190.56 -37599190.46 0.1833 0.1596
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 Uranus -107642-09-12 03:50 J -37594563.58 -37594563.34 -37594563.10 0.0140 0.0004
 Uranus -107641-09-15 08:52 J -37594194.26 -37594194.13 -37594193.96 0.0140 0.0112
 Saturn -107637-01-24 20:52 J -37592967.86 -37592967.63 -37592967.39 0.0266 0.0093
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 Saturn -107622-07-30 14:24 J -37587302.13 -37587301.90 -37587301.67 0.0295 0.0043
 Jupiter -107621-08-22 21:50 J -37586912.70 -37586912.59 -37586912.48 0.0521 0.0448
 Mars -107616-07-21 14:38 J -37585118.95 -37585118.89 -37585118.83 0.1673 0.1578
 Jupiter -107614-03-07 02:38 J -37584525.53 -37584525.39 -37584525.24 0.0509 0.0404
 Jupiter -107609-08-27 10:48 J -37582525.28 -37582525.05 -37582524.82 0.0519 0.0040
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 Uranus -107603-03-18 17:31 J -37580496.03 -37580495.77 -37580495.51 0.0139 0.0005
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 Saturn -107593-07-23 14:52 J -37576715.99 -37576715.88 -37576715.76 0.0294 0.0256
 Neptune -107583-07-26 21:35 J -37573060.60 -37573060.60 -37573060.58 0.0088 0.0088
 Neptune -107582-07-29 03:35 J -37572693.53 -37572693.35 -37572693.13 0.0088 0.0057
 Neptune -107581-07-30 13:55 J -37572326.15 -37572325.92 -37572325.69 0.0088 0.0028
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 Mars -107569-07-15 14:52 J -37567958.01 -37567957.88 -37567957.75 0.1684 0.1167
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 Uranus -107558-09-12 16:33 J -37563882.04 -37563881.81 -37563881.57 0.0140 0.0024
 Uranus -107557-09-15 20:52 J -37563512.79 -37563512.63 -37563512.46 0.0140 0.0105
 Saturn -107549-01-20 22:48 J -37560829.63 -37560829.55 -37560829.45 0.0267 0.0249
 Saturn -107548-02-01 22:33 J -37560451.57 -37560451.56 -37560451.53 0.0265 0.0263
 Jupiter -107543-03-01 03:21 J -37558598.58 -37558598.36 -37558598.12 0.0507 0.0173
 Jupiter -107538-08-23 03:50 J -37556597.37 -37556597.34 -37556597.30 0.0521 0.0514
 Saturn -107534-07-26 01:40 J -37555164.61 -37555164.43 -37555164.25 0.0294 0.0180
 Jupiter -107531-03-05 22:19 J -37554210.75 -37554210.57 -37554210.38 0.0509 0.0329
 Jupiter -107526-08-27 12:57 J -37552210.18 -37552209.96 -37552209.74 0.0519 0.0043
 Pluto -107524-02-10 17:31 J -37551677.03 -37551676.77 -37551676.50 0.0065 0.0002
 Uranus -107520-03-14 07:55 J -37550184.34 -37550184.17 -37550183.99 0.0140 0.0105
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 Uranus -107519-03-19 01:11 J -37549814.70 -37549814.45 -37549814.19 0.0139 0.0018
 Uranus -107518-03-24 06:43 J -37549444.40 -37549444.22 -37549444.02 0.0139 0.0095
 Jupiter -107514-09-01 00:43 J -37547822.62 -37547822.47 -37547822.30 0.0518 0.0374
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 Neptune -107499-01-27 22:48 J -37542559.76 -37542559.55 -37542559.29 0.0089 0.0038
 Neptune -107498-01-30 09:35 J -37542192.37 -37542192.10 -37542191.83 0.0089 0.0012
 Neptune -107497-02-02 09:35 J -37541824.35 -37541824.10 -37541823.84 0.0089 0.0030
 Neptune -107496-02-03 18:57 J -37541456.90 -37541456.71 -37541456.49 0.0089 0.0056
 Saturn -107490-01-22 11:16 J -37539278.20 -37539278.03 -37539277.85 0.0266 0.0187
 Mars -107490-07-18 12:28 J -37539101.15 -37539100.98 -37539100.81 0.1681 0.0190
 Saturn -107475-07-27 09:35 J -37533613.31 -37533613.10 -37533612.88 0.0295 0.0113
 Uranus -107475-09-08 12:57 J -37533570.16 -37533569.96 -37533569.73 0.0139 0.0066
 Uranus -107474-09-13 05:16 J -37533200.52 -37533200.28 -37533200.03 0.0140 0.0013
 Uranus -107473-09-16 08:38 J -37532831.25 -37532831.14 -37532831.01 0.0140 0.0123
 Saturn -107460-01-28 15:50 J -37528314.08 -37528313.84 -37528313.60 0.0265 0.0088
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Jupiter -107448-03-05 07:26 J -37523895.38 -37523895.19 -37523894.98 0.0508 0.0266
 Saturn -107445-08-03 02:38 J -37522648.50 -37522648.39 -37522648.28 0.0295 0.0258
 Jupiter -107443-08-26 22:19 J -37521894.80 -37521894.57 -37521894.35 0.0520 0.0111
 Pluto -107437-08-11 16:48 J -37519718.03 -37519717.80 -37519717.55 0.0079 0.0020
 Uranus -107436-03-14 17:16 J -37519502.93 -37519502.78 -37519502.60 0.0140 0.0111
 Uranus -107435-03-19 12:43 J -37519133.23 -37519132.97 -37519132.72 0.0139 0.0001
 Uranus -107434-03-24 17:02 J -37518762.99 -37518762.79 -37518762.57 0.0139 0.0085
 Saturn -107431-01-23 18:43 J -37517726.94 -37517726.72 -37517726.49 0.0266 0.0130
 Jupiter -107431-08-31 07:11 J -37517507.37 -37517507.20 -37517507.03 0.0518 0.0322
 Neptune -107418-07-28 20:38 J -37512792.74 -37512792.64 -37512792.49 0.0088 0.0076
 Neptune -107417-07-29 21:21 J -37512425.82 -37512425.61 -37512425.37 0.0088 0.0037
 Saturn -107416-07-28 08:38 J -37512062.38 -37512062.14 -37512061.90 0.0295 0.0048
 Neptune -107416-08-01 11:02 J -37512058.28 -37512058.04 -37512057.79 0.0088 0.0014
 Neptune -107415-08-03 12:14 J -37511691.21 -37511690.99 -37511690.75 0.0088 0.0024
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 Neptune -107413-08-07 03:50 J -37510956.38 -37510956.34 -37510956.25 0.0088 0.0086
 Mars -107411-07-20 08:09 J -37510244.28 -37510244.16 -37510244.03 0.1679 0.1143
 Saturn -107401-01-30 22:04 J -37506762.77 -37506762.58 -37506762.36 0.0265 0.0144
 Uranus -107391-09-09 00:57 J -37502888.66 -37502888.46 -37502888.25 0.0139 0.0073
 Uranus -107390-09-13 16:48 J -37502519.04 -37502518.80 -37502518.56 0.0140 0.0032
 Uranus -107389-09-16 20:09 J -37502149.79 -37502149.66 -37502149.50 0.0140 0.0113
 Jupiter -107377-02-28 07:55 J -37497968.36 -37497968.17 -37497967.98 0.0506 0.0314
 Saturn -107372-01-24 17:16 J -37496176.04 -37496175.78 -37496175.53 0.0266 0.0077
 Jupiter -107365-03-04 04:04 J -37493580.56 -37493580.33 -37493580.10 0.0508 0.0184
 Jupiter -107360-08-26 06:28 J -37491579.43 -37491579.23 -37491579.02 0.0520 0.0159
 Saturn -107357-07-29 01:55 J -37490511.66 -37490511.42 -37490511.18 0.0294 0.0012
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 Uranus -107351-03-19 23:16 J -37488451.78 -37488451.53 -37488451.27 0.0139 0.0009
 Uranus -107350-03-25 01:11 J -37488081.61 -37488081.45 -37488081.24 0.0139 0.0103
 Jupiter -107348-08-31 00:00 J -37487191.69 -37487191.50 -37487191.30 0.0518 0.0260

Saturn -107342-02-01 02:24 J -37485211.56 -37485211.40 -37485211.22 0.0265 0.0193
 Neptune -107335-01-26 21:35 J -37482659.80 -37482659.60 -37482659.40 0.0089 0.0057
 Neptune -107334-01-29 20:52 J -37482291.89 -37482291.63 -37482291.36 0.0089 0.0023
 Neptune -107333-02-01 08:24 J -37481924.40 -37481924.15 -37481923.88 0.0089 0.0010
 Neptune -107332-02-03 04:33 J -37481556.53 -37481556.31 -37481556.05 0.0089 0.0046
 Neptune -107331-02-05 20:09 J -37481188.75 -37481188.66 -37481188.51 0.0089 0.0078
 Saturn -107328-07-23 19:11 J -37479924.75 -37479924.70 -37479924.62 0.0293 0.0280
 Saturn -107313-01-26 13:11 J -37474625.20 -37474624.95 -37474624.69 0.0266 0.0030
 Uranus -107307-09-09 12:14 J -37472207.20 -37472206.99 -37472206.77 0.0139 0.0061
 Uranus -107306-09-14 02:38 J -37471837.63 -37471837.39 -37471837.14 0.0140 0.0021
 Uranus -107305-09-17 06:57 J -37471468.29 -37471468.21 -37471468.10 0.0140 0.0130
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 Jupiter -107294-02-27 10:33 J -37467653.23 -37467653.06 -37467652.88 0.0506 0.0359
 Mars -107291-01-14 04:48 J -37466601.49 -37466601.30 -37466601.11 0.1832 0.0220
 Mars -107285-07-16 10:48 J -37464226.23 -37464226.05 -37464225.88 0.1688 0.0705
 Saturn -107283-02-01 22:33 J -37463660.67 -37463660.56 -37463660.45 0.0265 0.0242
 Jupiter -107282-03-04 17:31 J -37463265.00 -37463264.77 -37463264.55 0.0508 0.0146
 Pluto -107278-02-12 08:52 J -37461824.30 -37461824.13 -37461823.91 0.0065 0.0045
 Pluto -107277-02-13 18:14 J -37461457.92 -37461457.74 -37461457.50 0.0065 0.0039
 Jupiter -107277-08-25 21:21 J -37461263.81 -37461263.61 -37461263.40 0.0521 0.0218
 Saturn -107269-07-24 12:28 J -37458374.12 -37458373.98 -37458373.82 0.0293 0.0226
 Uranus -107268-03-15 11:31 J -37458140.21 -37458140.02 -37458139.83 0.0140 0.0099
 Uranus -107267-03-20 11:02 J -37457770.29 -37457770.04 -37457769.78 0.0139 0.0007
 Uranus -107266-03-25 11:02 J -37457400.24 -37457400.04 -37457399.83 0.0139 0.0092
 Jupiter -107265-08-30 02:52 J -37456876.58 -37456876.38 -37456876.17 0.0519 0.0199
 Saturn -107254-01-27 14:38 J -37453074.14 -37453073.89 -37453073.64 0.0267 0.0020
 Neptune -107253-07-29 17:31 J -37452524.95 -37452524.77 -37452524.54 0.0088 0.0052
 Neptune -107252-07-31 20:24 J -37452157.86 -37452157.65 -37452157.40 0.0088 0.0028
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 Neptune -107250-08-05 12:57 J -37451423.17 -37451422.96 -37451422.73 0.0088 0.0034

Neptune -107249-08-06 15:50 J -37451055.96 -37451055.84 -37451055.66 0.0088 0.0072
 Saturn -107239-08-01 02:09 J -37447409.61 -37447409.41 -37447409.19 0.0294 0.0120
 Saturn -107225-01-21 21:21 J -37442487.73 -37442487.61 -37442487.46 0.0267 0.0230
 Uranus -107223-09-09 21:35 J -37441525.79 -37441525.60 -37441525.37 0.0139 0.0066
 Uranus -107222-09-14 10:19 J -37441156.30 -37441156.07 -37441155.81 0.0140 0.0036
 Uranus -107221-09-17 17:02 J -37440786.92 -37440786.79 -37440786.66 0.0140 0.0117
 Jupiter -107211-02-27 00:14 J -37437337.62 -37437337.49 -37437337.34 0.0505 0.0400
 Saturn -107210-07-26 04:48 J -37436823.48 -37436823.30 -37436823.09 0.0293 0.0172
 Mars -107206-07-19 18:57 J -37435368.90 -37435368.71 -37435368.52 0.1685 0.0119
 Jupiter -107199-03-03 18:43 J -37432949.97 -37432949.72 -37432949.47 0.0507 0.0069
 Saturn -107195-01-28 17:02 J -37431523.03 -37431522.79 -37431522.54 0.0267 0.0067
 Jupiter -107194-08-26 03:35 J -37430948.54 -37430948.35 -37430948.15 0.0522 0.0266
 Pluto -107191-08-13 06:57 J -37429865.41 -37429865.21 -37429865.00 0.0080 0.0040
 Jupiter -107187-03-08 18:14 J -37428561.74 -37428561.74 -37428561.72 0.0509 0.0508
 Uranus -107184-03-15 15:50 J -37427459.02 -37427458.84 -37427458.63 0.0140 0.0097
 Uranus -107183-03-20 18:57 J -37427088.96 -37427088.71 -37427088.46 0.0139 0.0001
 Uranus -107182-03-25 15:50 J -37426719.00 -37426718.84 -37426718.65 0.0139 0.0107
 Jupiter -107182-08-30 23:16 J -37426560.74 -37426560.53 -37426560.32 0.0520 0.0152
 Saturn -107180-08-01 23:02 J -37425858.73 -37425858.54 -37425858.34 0.0294 0.0172
 Neptune -107171-01-26 08:24 J -37422759.28 -37422759.15 -37422759.00 0.0089 0.0076
 Neptune -107170-01-28 23:31 J -37422391.76 -37422391.52 -37422391.28 0.0089 0.0034
 Neptune -107169-01-31 14:52 J -37422024.15 -37422023.88 -37422023.59 0.0089 0.0009
 Neptune -107168-02-02 10:33 J -37421656.29 -37421656.06 -37421655.81 0.0089 0.0034
 Neptune -107167-02-04 22:19 J -37421288.74 -37421288.57 -37421288.33 0.0089 0.0059
 Saturn -107166-01-22 15:35 J -37420937.02 -37420936.85 -37420936.65 0.0268 0.0184
 Saturn -107151-07-27 05:02 J -37415272.49 -37415272.29 -37415272.08 0.0293 0.0119
 Uranus -107139-09-10 08:09 J -37410844.37 -37410844.16 -37410843.93 0.0139 0.0058
 Uranus -107138-09-14 18:00 J -37410475.00 -37410474.75 -37410474.50 0.0140 0.0028
 Uranus -107137-09-18 02:09 J -37410105.47 -37410105.41 -37410105.31 0.0140 0.0133
 Saturn -107136-01-29 14:38 J -37409972.12 -37409971.89 -37409971.65 0.0267 0.0117

Jupiter -107128-02-26 00:00 J -37407022.58 -37407022.50 -37407022.40 0.0504 0.0469
 Mars -107127-07-22 00:28 J -37406511.49 -37406511.48 -37406511.46 0.1682 0.1671
 Saturn -107121-08-02 19:26 J -37404307.83 -37404307.69 -37404307.53 0.0294 0.0228
 Jupiter -107116-03-03 01:26 J -37402634.67 -37402634.44 -37402634.20 0.0507 0.0020
 Jupiter -107111-08-25 21:35 J -37400632.77 -37400632.60 -37400632.42 0.0522 0.0317
 Saturn -107107-01-23 18:28 J -37399385.94 -37399385.73 -37399385.51 0.0268 0.0131
 Jupiter -107104-03-08 07:40 J -37398246.28 -37398246.18 -37398246.06 0.0508 0.0456
 Uranus -107100-03-15 20:52 J -37396777.83 -37396777.63 -37396777.42 0.0140 0.0092
 Uranus -107099-03-21 01:55 J -37396407.68 -37396407.42 -37396407.17 0.0139 0.0007
 Jupiter -107099-08-30 01:40 J -37396245.66 -37396245.43 -37396245.20 0.0520 0.0084
 Uranus -107098-03-25 20:09 J -37396037.85 -37396037.66 -37396037.46 0.0139 0.0096
 Saturn -107092-07-28 10:48 J -37393721.28 -37393721.05 -37393720.83 0.0293 0.0059
 Neptune -107089-07-29 06:14 J -37392624.36 -37392624.24 -37392624.07 0.0088 0.0070
 Neptune -107088-07-31 11:45 J -37392257.22 -37392257.01 -37392256.75 0.0088 0.0036
 Neptune -107087-08-02 22:48 J -37391889.79 -37391889.55 -37391889.31 0.0088 0.0009
 Jupiter -107087-09-03 17:02 J -37391857.85 -37391857.79 -37391857.73 0.0518 0.0496
 Neptune -107086-08-04 23:45 J -37391522.73 -37391522.51 -37391522.26 0.0088 0.0026
 Neptune -107085-08-06 13:26 J -37391155.13 -37391154.94 -37391154.74 0.0088 0.0053
 Neptune -107084-08-08 13:11 J -37390787.96 -37390787.95 -37390787.89 0.0088 0.0088
 Saturn -107077-01-31 10:19 J -37388421.26 -37388421.07 -37388420.86 0.0267 0.0171
 Saturn -107062-08-04 23:45 J -37382756.54 -37382756.51 -37382756.47 0.0294 0.0289
 Uranus -107055-09-10 18:43 J -37380162.92 -37380162.72 -37380162.49 0.0139 0.0057
 Uranus -107054-09-15 02:24 J -37379793.63 -37379793.40 -37379793.15 0.0140 0.0038
 Uranus -107053-09-18 13:40 J -37379424.04 -37379423.93 -37379423.81 0.0140 0.0122
 Saturn -107048-01-25 01:26 J -37377834.69 -37377834.44 -37377834.20 0.0268 0.0075
 Jupiter -107033-03-02 10:19 J -37372319.32 -37372319.07 -37372318.82 0.0506 0.0040
 Saturn -107033-07-29 15:50 J -37372170.08 -37372169.84 -37372169.60 0.0293 0.0008
 Pluto -107031-02-14 15:35 J -37371605.12 -37371604.85 -37371604.58 0.0065 0.0004
 Jupiter -107028-08-24 21:07 J -37370317.76 -37370317.62 -37370317.46 0.0522 0.0393
 Jupiter -107021-03-07 02:09 J -37367931.56 -37367931.41 -37367931.24 0.0507 0.0374

Saturn -107018-02-01 13:55 J -37366870.04 -37366869.92 -37366869.79 0.0267 0.0227
 Uranus -107016-03-16 00:43 J -37366096.64 -37366096.47 -37366096.26 0.0140 0.0099
 Jupiter -107016-08-29 12:57 J -37365930.18 -37365929.96 -37365929.74 0.0521 0.0015
 Uranus -107015-03-21 08:09 J -37365726.42 -37365726.16 -37365725.90 0.0139 0.0005
 Uranus -107014-03-26 00:43 J -37365356.64 -37365356.47 -37365356.30 0.0139 0.0105
 Mars -107007-01-13 07:55 J -37362871.40 -37362871.17 -37362870.93 0.1826 0.0074
 Neptune -107006-01-28 03:35 J -37362491.57 -37362491.35 -37362491.11 0.0089 0.0050
 Neptune -107005-01-31 02:24 J -37362123.65 -37362123.40 -37362123.13 0.0089 0.0022
 Neptune -107004-02-01 12:00 J -37361756.25 -37361756.00 -37361755.72 0.0089 0.0018
 Saturn -107004-07-24 03:35 J -37361583.43 -37361583.35 -37361583.26 0.0291 0.0267
 Jupiter -107004-09-02 22:48 J -37361542.67 -37361542.55 -37361542.41 0.0519 0.0430
 Neptune -107003-02-04 12:14 J -37361388.22 -37361387.99 -37361387.76 0.0089 0.0047
 Neptune -107002-02-06 21:21 J -37361020.66 -37361020.61 -37361020.51 0.0089 0.0085
 Mars -107001-07-17 18:28 J -37360493.90 -37360493.73 -37360493.56 0.1692 0.0214

107TH MILLENNIUM BCE

This is a list of transits of Moon in the 107th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Saturn -106989-01-27 04:19 J -37356283.58 -37356283.32 -37356283.05 0.0268 0.0014
 Saturn -106974-07-31 19:55 J -37350618.90 -37350618.67 -37350618.43 0.0293 0.0075
 Uranus -106972-09-06 18:00 J -37349850.76 -37349850.75 -37349850.70 0.0138 0.0138

Uranus -106971-09-11 05:31 J -37349481.48 -37349481.27 -37349481.04 0.0139 0.0055
 Uranus -106970-09-15 10:33 J -37349112.30 -37349112.06 -37349111.81 0.0140 0.0036
 Uranus -106969-09-19 00:00 J -37348742.54 -37348742.50 -37348742.42 0.0140 0.0136
 Saturn -106960-01-20 18:57 J -37345696.81 -37345696.71 -37345696.60 0.0269 0.0242
 Jupiter -106950-03-02 04:48 J -37342004.53 -37342004.30 -37342004.07 0.0505 0.0126
 Saturn -106945-07-25 19:11 J -37340031.87 -37340031.70 -37340031.52 0.0291 0.0190
 Jupiter -106945-08-24 06:43 J -37340002.31 -37340002.22 -37340002.12 0.0523 0.0471
 Pluto -106944-08-15 20:24 J -37339645.84 -37339645.65 -37339645.43 0.0079 0.0041
 Jupiter -106938-03-07 09:50 J -37337616.29 -37337616.09 -37337615.89 0.0507 0.0293
 Jupiter -106933-08-28 16:48 J -37335615.03 -37335614.80 -37335614.57 0.0521 0.0057
 Uranus -106932-03-16 07:26 J -37335415.37 -37335415.19 -37335414.96 0.0140 0.0088
 Uranus -106931-03-21 15:07 J -37335045.13 -37335044.87 -37335044.61 0.0139 0.0005
 Saturn -106930-01-28 06:57 J -37334732.46 -37334732.21 -37334731.95 0.0268 0.0052
 Uranus -106930-03-26 06:28 J -37334675.41 -37334675.23 -37334675.04 0.0139 0.0099
 Neptune -106925-07-28 18:28 J -37332723.76 -37332723.73 -37332723.63 0.0088 0.0086
 Neptune -106924-07-31 07:40 J -37332356.38 -37332356.18 -37332355.96 0.0088 0.0046
 Neptune -106923-08-02 07:55 J -37331989.39 -37331989.17 -37331988.92 0.0088 0.0024
 Mars -106922-07-20 15:50 J -37331637.01 -37331636.84 -37331636.67 0.1689 0.0452
 Neptune -106922-08-04 21:50 J -37331621.84 -37331621.59 -37331621.34 0.0088 0.0016
 Neptune -106921-08-05 23:02 J -37331254.74 -37331254.54 -37331254.31 0.0088 0.0038
 Jupiter -106921-09-02 02:38 J -37331227.54 -37331227.39 -37331227.22 0.0519 0.0352
 Neptune -106920-08-08 09:07 J -37330887.22 -37330887.12 -37330886.96 0.0088 0.0077
 Saturn -106915-08-02 06:28 J -37329067.43 -37329067.23 -37329067.03 0.0293 0.0153
 Saturn -106901-01-23 07:55 J -37324145.35 -37324145.17 -37324144.97 0.0269 0.0176
 Uranus -106887-09-11 17:02 J -37318800.01 -37318799.79 -37318799.56 0.0139 0.0047
 Saturn -106886-07-28 10:48 J -37318480.26 -37318480.05 -37318479.82 0.0292 0.0109
 Uranus -106886-09-15 20:38 J -37318430.88 -37318430.64 -37318430.40 0.0140 0.0041
 Uranus -106885-09-19 12:14 J -37318061.09 -37318060.99 -37318060.90 0.0140 0.0129
 Saturn -106871-01-29 18:00 J -37313180.97 -37313180.75 -37313180.52 0.0268 0.0120
 Jupiter -106867-03-01 09:50 J -37311689.31 -37311689.09 -37311688.86 0.0505 0.0204

Saturn -106856-08-04 00:00 J -37307515.63 -37307515.50 -37307515.36 0.0294 0.0233
 Jupiter -106855-03-06 03:21 J -37307301.57 -37307301.36 -37307301.14 0.0507 0.0213
 Jupiter -106850-08-28 18:28 J -37305299.94 -37305299.73 -37305299.52 0.0522 0.0153
 Uranus -106848-03-16 15:35 J -37304734.02 -37304733.85 -37304733.65 0.0140 0.0097
 Uranus -106847-03-21 23:16 J -37304363.79 -37304363.53 -37304363.26 0.0139 0.0010
 Uranus -106846-03-26 14:24 J -37303994.06 -37303993.90 -37303993.72 0.0139 0.0105
 Saturn -106842-01-24 18:28 J -37302593.97 -37302593.73 -37302593.49 0.0269 0.0108
 Neptune -106842-01-27 16:33 J -37302590.96 -37302590.81 -37302590.64 0.0089 0.0070
 Neptune -106841-01-30 02:09 J -37302223.64 -37302223.41 -37302223.14 0.0089 0.0031
 Neptune -106840-02-01 01:40 J -37301855.70 -37301855.43 -37301855.15 0.0089 0.0003
 Neptune -106839-02-03 13:26 J -37301488.16 -37301487.94 -37301487.68 0.0089 0.0038
 Neptune -106838-02-06 09:07 J -37301120.28 -37301120.12 -37301119.90 0.0089 0.0065
 Jupiter -106838-09-02 04:48 J -37300912.50 -37300912.30 -37300912.10 0.0520 0.0257
 Saturn -106827-07-29 22:33 J -37296928.80 -37296928.56 -37296928.32 0.0292 0.0027
 Saturn -106812-01-31 11:31 J -37291629.19 -37291629.02 -37291628.85 0.0267 0.0190
 Uranus -106804-09-07 12:28 J -37288488.05 -37288487.98 -37288487.89 0.0138 0.0130
 Uranus -106803-09-12 02:38 J -37288118.60 -37288118.39 -37288118.15 0.0139 0.0052
 Uranus -106802-09-16 05:31 J -37287749.51 -37287749.27 -37287749.04 0.0140 0.0043
 Uranus -106801-09-19 22:19 J -37287379.62 -37287379.57 -37287379.52 0.0140 0.0137
 Mars -106796-07-16 18:00 J -37285618.87 -37285618.75 -37285618.64 0.1699 0.1378
 Pluto -106785-02-15 23:45 J -37281752.74 -37281752.51 -37281752.24 0.0065 0.0028
 Pluto -106784-02-16 21:50 J -37281385.70 -37281385.59 -37281385.44 0.0066 0.0057
 Jupiter -106784-02-28 02:24 J -37281374.59 -37281374.40 -37281374.20 0.0504 0.0288
 Saturn -106783-01-26 02:09 J -37281042.67 -37281042.41 -37281042.14 0.0268 0.0037
 Jupiter -106772-03-05 07:55 J -37276986.40 -37276986.17 -37276985.93 0.0506 0.0121
 Saturn -106768-07-31 10:19 J -37275377.31 -37275377.07 -37275376.84 0.0292 0.0054
 Jupiter -106767-08-27 19:11 J -37274984.90 -37274984.70 -37274984.49 0.0523 0.0246
 Uranus -106764-03-17 01:40 J -37274052.63 -37274052.43 -37274052.21 0.0140 0.0081
 Uranus -106763-03-22 07:40 J -37273682.45 -37273682.18 -37273681.91 0.0139 0.0007
 Uranus -106762-03-26 23:16 J -37273312.67 -37273312.53 -37273312.34 0.0139 0.0106

Neptune -106760-07-30 17:02 J -37272455.94 -37272455.79 -37272455.59 0.0088 0.0063
 Neptune -106759-08-02 05:45 J -37272088.48 -37272088.26 -37272088.01 0.0088 0.0033
 Neptune -106758-08-04 08:52 J -37271721.37 -37271721.13 -37271720.89 0.0088 0.0002
 Neptune -106757-08-05 17:02 J -37271354.02 -37271353.79 -37271353.53 0.0088 0.0029
 Neptune -106756-08-08 01:40 J -37270986.60 -37270986.43 -37270986.25 0.0088 0.0061
 Jupiter -106755-09-01 05:45 J -37270597.47 -37270597.26 -37270597.06 0.0521 0.0181
 Saturn -106754-01-20 23:16 J -37270455.55 -37270455.53 -37270455.47 0.0269 0.0266
 Saturn -106753-02-03 02:38 J -37270077.42 -37270077.39 -37270077.32 0.0267 0.0261
 Saturn -106739-07-26 05:02 J -37264790.44 -37264790.29 -37264790.13 0.0292 0.0220
 Saturn -106724-01-27 13:40 J -37259491.18 -37259490.93 -37259490.68 0.0268 0.0034
 Mars -106723-01-12 12:28 J -37259141.17 -37259140.98 -37259140.79 0.1819 0.0420
 Uranus -106719-09-12 11:45 J -37257437.24 -37257437.01 -37257436.77 0.0139 0.0042
 Uranus -106718-09-16 13:55 J -37257068.15 -37257067.92 -37257067.68 0.0140 0.0041
 Mars -106717-07-19 03:50 J -37256761.53 -37256761.34 -37256761.15 0.1695 0.0241
 Uranus -106717-09-20 06:57 J -37256698.28 -37256698.21 -37256698.13 0.0140 0.0133
 Saturn -106709-08-02 02:24 J -37253825.60 -37253825.40 -37253825.19 0.0293 0.0131
 Jupiter -106701-02-28 03:50 J -37251059.49 -37251059.34 -37251059.18 0.0504 0.0385
 Pluto -106698-08-17 15:21 J -37249793.11 -37249792.86 -37249792.60 0.0079 0.0001
 Saturn -106695-01-22 15:50 J -37248904.02 -37248903.84 -37248903.65 0.0269 0.0191
 Jupiter -106689-03-03 20:38 J -37246671.88 -37246671.64 -37246671.39 0.0506 0.0027
 Jupiter -106684-08-26 21:07 J -37244669.78 -37244669.62 -37244669.45 0.0523 0.0332
 Uranus -106680-03-17 10:19 J -37243371.24 -37243371.07 -37243370.86 0.0140 0.0092
 Saturn -106680-07-27 13:40 J -37243239.13 -37243238.93 -37243238.71 0.0292 0.0147
 Uranus -106679-03-22 15:07 J -37243001.13 -37243000.87 -37243000.60 0.0139 0.0018
 Neptune -106678-01-26 18:00 J -37242690.78 -37242690.75 -37242690.68 0.0089 0.0088
 Uranus -106678-03-27 08:52 J -37242631.28 -37242631.13 -37242630.96 0.0139 0.0107
 Neptune -106677-01-29 14:24 J -37242323.14 -37242322.90 -37242322.65 0.0089 0.0044
 Jupiter -106677-03-09 04:04 J -37242283.43 -37242283.33 -37242283.23 0.0507 0.0453
 Neptune -106676-01-31 05:45 J -37241955.51 -37241955.26 -37241955.01 0.0089 0.0018
 Neptune -106675-02-02 21:07 J -37241587.88 -37241587.62 -37241587.34 0.0089 0.0024

Neptune -106674-02-05 16:48 J -37241219.99 -37241219.80 -37241219.56 0.0089 0.0051
 Jupiter -106672-08-31 12:43 J -37240282.19 -37240281.97 -37240281.74 0.0521 0.0091
 Saturn -106665-01-30 05:31 J -37237939.49 -37237939.27 -37237939.04 0.0268 0.0103
 Saturn -106650-08-04 17:16 J -37232273.94 -37232273.78 -37232273.61 0.0293 0.0202
 Mars -106644-01-15 18:28 J -37230282.87 -37230282.73 -37230282.59 0.1824 0.1372
 Mars -106638-07-22 07:26 J -37227904.33 -37227904.19 -37227904.04 0.1692 0.0971
 Saturn -106636-01-24 00:57 J -37227352.69 -37227352.46 -37227352.21 0.0268 0.0117
 Uranus -106636-09-08 05:02 J -37227125.37 -37227125.29 -37227125.18 0.0138 0.0126
 Uranus -106635-09-12 19:11 J -37226755.93 -37226755.70 -37226755.46 0.0139 0.0051
 Uranus -106634-09-16 21:21 J -37226386.83 -37226386.61 -37226386.37 0.0140 0.0047
 Uranus -106633-09-20 14:09 J -37226016.97 -37226016.91 -37226016.84 0.0140 0.0135
 Saturn -106621-07-28 19:11 J -37221687.93 -37221687.70 -37221687.47 0.0292 0.0080
 Jupiter -106618-02-26 22:33 J -37220744.65 -37220744.56 -37220744.45 0.0503 0.0458
 Saturn -106606-01-31 19:26 J -37216387.88 -37216387.69 -37216387.49 0.0267 0.0171
 Jupiter -106606-03-04 06:14 J -37216356.47 -37216356.24 -37216356.00 0.0505 0.0043
 Jupiter -106601-08-26 02:09 J -37214354.53 -37214354.41 -37214354.27 0.0523 0.0427
 Uranus -106596-03-17 17:45 J -37212689.97 -37212689.76 -37212689.54 0.0140 0.0076
 Neptune -106596-07-30 14:09 J -37212555.00 -37212554.91 -37212554.78 0.0088 0.0080
 Uranus -106595-03-22 19:40 J -37212319.95 -37212319.68 -37212319.40 0.0139 0.0009
 Neptune -106595-08-01 19:26 J -37212187.89 -37212187.69 -37212187.46 0.0088 0.0041
 Jupiter -106594-03-09 00:28 J -37211968.65 -37211968.48 -37211968.31 0.0507 0.0372
 Uranus -106594-03-27 15:50 J -37211949.98 -37211949.84 -37211949.68 0.0139 0.0112
 Neptune -106594-08-04 00:57 J -37211820.70 -37211820.46 -37211820.19 0.0088 0.0019
 Neptune -106593-08-05 11:31 J -37211453.26 -37211453.02 -37211452.79 0.0088 0.0021
 Neptune -106592-08-07 12:43 J -37211086.18 -37211085.97 -37211085.74 0.0088 0.0043
 Saturn -106591-08-05 23:16 J -37210722.62 -37210722.53 -37210722.42 0.0293 0.0265
 Neptune -106591-08-10 01:55 J -37210718.49 -37210718.42 -37210718.31 0.0088 0.0082
 Jupiter -106589-08-30 08:52 J -37209967.35 -37209967.13 -37209966.91 0.0522 0.0008
 Saturn -106577-01-26 07:40 J -37205801.43 -37205801.18 -37205800.92 0.0268 0.0047
 Jupiter -106577-09-04 06:14 J -37205579.29 -37205579.24 -37205579.17 0.0520 0.0497

Saturn -106562-07-31 01:55 J -37200136.65 -37200136.42 -37200136.19 0.0292 0.0017
 Uranus -106552-09-08 14:23 J -37196443.90 -37196443.90 -37196443.88 0.0138 0.0138
 Uranus -106551-09-13 02:52 J -37196074.61 -37196074.38 -37196074.13 0.0139 0.0038
 Uranus -106550-09-17 06:14 J -37195705.46 -37195705.24 -37195705.00 0.0140 0.0040
 Uranus -106549-09-20 21:07 J -37195335.65 -37195335.62 -37195335.54 0.0140 0.0136
 Saturn -106547-02-02 00:57 J -37194836.58 -37194836.46 -37194836.32 0.0267 0.0232
 Pluto -106539-02-16 19:55 J -37191899.80 -37191899.67 -37191899.47 0.0065 0.0052
 Pluto -106538-02-18 11:16 J -37191533.25 -37191533.03 -37191532.77 0.0066 0.0035
 Saturn -106533-07-24 23:02 J -37189549.61 -37189549.54 -37189549.46 0.0291 0.0276
 Jupiter -106523-03-02 21:35 J -37186041.84 -37186041.60 -37186041.35 0.0504 0.0135
 Saturn -106518-01-27 17:16 J -37184250.03 -37184249.78 -37184249.54 0.0268 0.0017
 Jupiter -106518-08-26 06:28 J -37184039.30 -37184039.23 -37184039.15 0.0524 0.0492
 Neptune -106513-01-28 21:50 J -37182422.75 -37182422.59 -37182422.38 0.0089 0.0063
 Neptune -106512-01-30 10:47 J -37182055.31 -37182055.05 -37182054.78 0.0089 0.0028
 Uranus -106512-03-17 23:59 J -37182008.68 -37182008.50 -37182008.29 0.0140 0.0090
 Mars -106512-07-17 19:11 J -37181886.84 -37181886.70 -37181886.57 0.1703 0.1032
 Neptune -106511-02-02 09:21 J -37181687.37 -37181687.11 -37181686.84 0.0089 0.0005
 Jupiter -106511-03-08 01:55 J -37181653.61 -37181653.42 -37181653.23 0.0506 0.0290
 Uranus -106511-03-23 00:14 J -37181638.76 -37181638.49 -37181638.22 0.0139 0.0021
 Neptune -106510-02-04 19:11 J -37181319.93 -37181319.70 -37181319.44 0.0089 0.0040
 Uranus -106510-03-27 22:33 J -37181268.70 -37181268.56 -37181268.38 0.0139 0.0106
 Neptune -106509-02-07 19:11 J -37180951.84 -37180951.70 -37180951.52 0.0089 0.0072
 Jupiter -106506-08-31 02:38 J -37179651.61 -37179651.39 -37179651.16 0.0522 0.0046
 Saturn -106503-08-01 07:55 J -37178585.39 -37178585.17 -37178584.94 0.0292 0.0038
 Jupiter -106494-09-04 06:57 J -37175264.34 -37175264.21 -37175264.08 0.0520 0.0428
 Saturn -106489-01-22 03:21 J -37173663.49 -37173663.36 -37173663.20 0.0269 0.0224
 Saturn -106474-07-26 17:59 J -37167998.89 -37167998.75 -37167998.58 0.0291 0.0227
 Uranus -106468-09-08 23:16 J -37165762.64 -37165762.53 -37165762.42 0.0138 0.0122
 Uranus -106467-09-13 10:04 J -37165393.30 -37165393.08 -37165392.83 0.0139 0.0049
 Uranus -106466-09-17 14:52 J -37165024.10 -37165023.88 -37165023.65 0.0140 0.0051

Uranus -106465-09-21 04:47 J -37164654.35 -37164654.30 -37164654.22 0.0140 0.0135
 Saturn -106459-01-29 01:40 J -37162698.67 -37162698.43 -37162698.19 0.0268 0.0075
 Pluto -106452-08-18 05:16 J -37159940.50 -37159940.28 -37159940.04 0.0079 0.0030
 Saturn -106444-08-02 08:52 J -37157034.36 -37157034.13 -37157033.91 0.0292 0.0091
 Jupiter -106440-03-02 08:52 J -37155726.35 -37155726.13 -37155725.91 0.0504 0.0192
 Mars -106439-01-12 08:23 J -37155410.35 -37155410.15 -37155409.94 0.1813 0.0663
 Mars -106433-07-19 20:38 J -37153029.82 -37153029.64 -37153029.46 0.1700 0.0520
 Neptune -106431-08-01 10:04 J -37152287.26 -37152287.08 -37152286.87 0.0088 0.0056
 Saturn -106430-01-23 00:43 J -37152112.66 -37152112.47 -37152112.26 0.0269 0.0169
 Neptune -106430-08-03 21:21 J -37151919.82 -37151919.61 -37151919.37 0.0088 0.0029
 Neptune -106429-08-04 22:19 J -37151552.81 -37151552.57 -37151552.31 0.0088 0.0006
 Jupiter -106428-03-07 11:02 J -37151338.26 -37151338.04 -37151337.82 0.0506 0.0243
 Uranus -106428-03-18 06:14 J -37151327.44 -37151327.24 -37151327.02 0.0140 0.0075
 Neptune -106428-08-07 11:59 J -37151185.23 -37151185.00 -37151184.77 0.0088 0.0033
 Uranus -106427-03-23 04:33 J -37150957.58 -37150957.31 -37150957.03 0.0139 0.0008
 Neptune -106427-08-09 11:59 J -37150818.14 -37150818.00 -37150817.83 0.0088 0.0068
 Uranus -106426-03-28 05:16 J -37150587.41 -37150587.28 -37150587.13 0.0139 0.0114
 Jupiter -106423-08-30 02:23 J -37149336.62 -37149336.40 -37149336.18 0.0522 0.0115
 Saturn -106415-07-27 15:07 J -37146448.04 -37146447.87 -37146447.68 0.0291 0.0179
 Jupiter -106411-09-03 20:38 J -37144948.78 -37144948.64 -37144948.48 0.0521 0.0375
 Saturn -106400-01-30 02:09 J -37141147.64 -37141147.41 -37141147.18 0.0268 0.0125
 Saturn -106385-08-03 02:09 J -37135483.62 -37135483.41 -37135483.18 0.0292 0.0134
 Uranus -106384-09-09 09:35 J -37135081.15 -37135081.10 -37135081.03 0.0138 0.0133
 Uranus -106383-09-13 19:26 J -37134711.93 -37134711.69 -37134711.44 0.0139 0.0034
 Uranus -106382-09-18 00:57 J -37134342.68 -37134342.46 -37134342.22 0.0140 0.0044
 Uranus -106381-09-21 13:55 J -37133972.92 -37133972.92 -37133972.92 0.0140 0.0140
 Saturn -106371-01-24 01:40 J -37130561.65 -37130561.43 -37130561.20 0.0269 0.0121
 Mars -106360-01-15 17:16 J -37126551.92 -37126551.78 -37126551.63 0.1818 0.1181
 Jupiter -106357-03-01 16:19 J -37125411.03 -37125410.82 -37125410.59 0.0504 0.0246
 Saturn -106356-07-28 16:19 J -37124897.02 -37124896.82 -37124896.62 0.0291 0.0136

Mars -106354-07-23 04:19 J -37124172.44 -37124172.32 -37124172.21 0.1696 0.1359
 Neptune -106349-01-27 23:45 J -37122522.60 -37122522.51 -37122522.40 0.0089 0.0082
 Neptune -106348-01-29 23:31 J -37122154.75 -37122154.52 -37122154.27 0.0089 0.0039
 Neptune -106347-02-01 09:21 J -37121787.37 -37121787.11 -37121786.84 0.0089 0.0014
 Neptune -106346-02-04 09:21 J -37121419.35 -37121419.11 -37121418.84 0.0089 0.0030
 Neptune -106345-02-06 19:55 J -37121051.86 -37121051.67 -37121051.45 0.0089 0.0055
 Jupiter -106345-03-06 09:07 J -37121023.34 -37121023.12 -37121022.90 0.0505 0.0169
 Uranus -106344-03-18 14:52 J -37120646.07 -37120645.88 -37120645.67 0.0140 0.0087
 Uranus -106343-03-23 11:31 J -37120276.29 -37120276.02 -37120275.75 0.0139 0.0023
 Uranus -106342-03-28 13:26 J -37119906.09 -37119905.94 -37119905.76 0.0139 0.0107
 Saturn -106341-01-31 19:40 J -37119596.87 -37119596.68 -37119596.47 0.0268 0.0171
 Jupiter -106340-08-29 21:07 J -37119020.83 -37119020.62 -37119020.41 0.0523 0.0153
 Jupiter -106328-09-03 07:55 J -37114633.34 -37114633.17 -37114632.99 0.0521 0.0337
 Saturn -106326-08-04 21:07 J -37113932.79 -37113932.62 -37113932.42 0.0292 0.0178
 Saturn -106312-01-25 04:19 J -37109010.56 -37109010.32 -37109010.08 0.0269 0.0075
 Mars -106307-07-17 01:11 J -37107011.57 -37107011.45 -37107011.32 0.1710 0.1304
 Uranus -106300-09-09 19:11 J -37104399.82 -37104399.70 -37104399.57 0.0138 0.0118
 Uranus -106299-09-14 03:35 J -37104030.58 -37104030.35 -37104030.11 0.0139 0.0045
 Uranus -106298-09-18 11:02 J -37103661.25 -37103661.04 -37103660.82 0.0140 0.0056
 Saturn -106297-07-29 15:07 J -37103346.09 -37103345.87 -37103345.64 0.0291 0.0093
 Uranus -106297-09-21 22:19 J -37103291.61 -37103291.57 -37103291.51 0.0140 0.0138
 Pluto -106292-02-19 03:21 J -37101680.62 -37101680.36 -37101680.09 0.0065 0.0009
 Saturn -106282-02-01 17:02 J -37098045.94 -37098045.79 -37098045.64 0.0268 0.0215
 Jupiter -106274-03-01 17:31 J -37095095.95 -37095095.77 -37095095.59 0.0503 0.0320
 Neptune -106267-08-01 06:14 J -37092386.35 -37092386.24 -37092386.09 0.0088 0.0075
 Saturn -106267-08-05 22:33 J -37092381.69 -37092381.56 -37092381.40 0.0292 0.0224
 Neptune -106266-08-03 06:57 J -37092019.42 -37092019.21 -37092018.96 0.0088 0.0036
 Neptune -106265-08-04 20:52 J -37091651.88 -37091651.63 -37091651.38 0.0088 0.0013
 Neptune -106264-08-06 21:21 J -37091284.82 -37091284.61 -37091284.36 0.0088 0.0027
 Neptune -106263-08-09 08:38 J -37090917.33 -37090917.14 -37090916.90 0.0088 0.0049

Jupiter -106262-03-06 23:59 J -37090707.73 -37090707.50 -37090707.26 0.0505 0.0131
 Neptune -106262-08-11 13:40 J -37090549.96 -37090549.93 -37090549.87 0.0088 0.0087
 Uranus -106260-03-18 23:59 J -37089964.70 -37089964.50 -37089964.26 0.0140 0.0071
 Uranus -106259-03-23 19:40 J -37089594.95 -37089594.68 -37089594.41 0.0139 0.0012
 Uranus -106258-03-28 23:16 J -37089224.65 -37089224.53 -37089224.39 0.0139 0.0119
 Jupiter -106257-08-29 06:14 J -37088705.45 -37088705.24 -37088705.02 0.0523 0.0193
 Saturn -106253-01-27 02:38 J -37087459.65 -37087459.39 -37087459.13 0.0269 0.0031
 Jupiter -106245-09-02 16:19 J -37084318.00 -37084317.82 -37084317.64 0.0521 0.0281
 Saturn -106238-07-31 09:35 J -37081795.34 -37081795.10 -37081794.86 0.0291 0.0048
 Mars -106228-07-19 07:55 J -37078154.34 -37078154.17 -37078154.00 0.1707 0.0549
 Saturn -106224-01-20 09:50 J -37076873.14 -37076873.09 -37076873.00 0.0271 0.0258
 Saturn -106223-02-02 19:11 J -37076494.76 -37076494.70 -37076494.61 0.0269 0.0257
 Uranus -106216-09-10 05:16 J -37073718.34 -37073718.28 -37073718.18 0.0138 0.0130
 Uranus -106215-09-14 11:59 J -37073349.24 -37073349.00 -37073348.75 0.0139 0.0030
 Uranus -106214-09-18 20:52 J -37072979.85 -37072979.63 -37072979.41 0.0140 0.0046
 Saturn -106208-08-07 02:23 J -37070830.47 -37070830.40 -37070830.31 0.0292 0.0272
 Pluto -106206-08-20 05:02 J -37070087.43 -37070087.29 -37070087.13 0.0080 0.0062
 Pluto -106205-08-21 00:57 J -37069720.51 -37069720.46 -37069720.33 0.0079 0.0074
 Saturn -106194-01-27 21:07 J -37065908.88 -37065908.62 -37065908.35 0.0270 0.0013
 Jupiter -106191-03-01 07:26 J -37064780.35 -37064780.19 -37064780.01 0.0503 0.0369
 Neptune -106184-01-28 23:45 J -37062254.70 -37062254.51 -37062254.29 0.0089 0.0057
 Neptune -106183-01-31 22:33 J -37061886.81 -37061886.56 -37061886.28 0.0089 0.0024
 Neptune -106182-02-03 10:33 J -37061519.31 -37061519.06 -37061518.79 0.0089 0.0010
 Neptune -106181-02-06 05:59 J -37061151.47 -37061151.25 -37061150.99 0.0089 0.0045
 Neptune -106180-02-07 22:33 J -37060783.67 -37060783.56 -37060783.43 0.0089 0.0078
 Jupiter -106179-03-06 00:28 J -37060392.72 -37060392.48 -37060392.24 0.0505 0.0082
 Saturn -106179-08-01 06:28 J -37060244.46 -37060244.23 -37060243.99 0.0291 0.0002
 Uranus -106176-03-19 10:47 J -37059283.25 -37059283.05 -37059282.82 0.0140 0.0080
 Uranus -106175-03-24 04:47 J -37058913.56 -37058913.30 -37058913.03 0.0139 0.0030
 Uranus -106174-03-29 09:07 J -37058543.25 -37058543.12 -37058542.95 0.0139 0.0112

Jupiter -106174-08-29 13:40 J -37058390.12 -37058389.93 -37058389.74 0.0524 0.0254
 Saturn -106165-01-22 13:55 J -37055322.07 -37055321.92 -37055321.76 0.0271 0.0211
 Jupiter -106162-09-03 05:45 J -37054002.46 -37054002.26 -37054002.05 0.0523 0.0227
 Mars -106155-01-11 02:52 J -37051680.51 -37051680.38 -37051680.25 0.1806 0.1383
 Saturn -106150-07-27 05:31 J -37049657.36 -37049657.27 -37049657.15 0.0289 0.0259
 Mars -106149-07-21 07:55 J -37049297.31 -37049297.17 -37049297.02 0.1704 0.0929
 Saturn -106135-01-28 19:55 J -37044357.92 -37044357.67 -37044357.42 0.0270 0.0061
 Uranus -106132-09-10 14:23 J -37043037.03 -37043036.90 -37043036.77 0.0138 0.0115
 Uranus -106131-09-14 19:26 J -37042667.93 -37042667.69 -37042667.45 0.0139 0.0042
 Uranus -106130-09-19 06:14 J -37042298.46 -37042298.24 -37042298.03 0.0140 0.0059
 Uranus -106129-09-22 13:40 J -37041928.96 -37041928.93 -37041928.88 0.0140 0.0138
 Saturn -106120-08-02 13:11 J -37038693.17 -37038692.95 -37038692.73 0.0291 0.0059
 Jupiter -106108-02-28 03:35 J -37034465.46 -37034465.35 -37034465.24 0.0502 0.0441
 Saturn -106106-01-23 18:28 J -37033770.94 -37033770.73 -37033770.53 0.0271 0.0160
 Neptune -106103-07-31 15:50 J -37032485.89 -37032485.84 -37032485.77 0.0088 0.0086
 Neptune -106102-08-03 05:16 J -37032118.46 -37032118.28 -37032118.06 0.0088 0.0052
 Neptune -106101-08-04 06:57 J -37031751.44 -37031751.21 -37031750.97 0.0088 0.0024
 Neptune -106100-08-06 17:16 J -37031384.03 -37031383.78 -37031383.52 0.0088 0.0011
 Neptune -106099-08-08 22:33 J -37031016.77 -37031016.56 -37031016.34 0.0088 0.0038
 Neptune -106098-08-11 03:50 J -37030649.47 -37030649.34 -37030649.18 0.0088 0.0073
 Jupiter -106096-03-05 09:35 J -37030077.34 -37030077.10 -37030076.86 0.0503 0.0015
 Uranus -106092-03-19 19:55 J -37028601.89 -37028601.67 -37028601.43 0.0140 0.0063
 Uranus -106091-03-24 13:26 J -37028232.19 -37028231.94 -37028231.67 0.0139 0.0020
 Saturn -106091-07-28 09:21 J -37028106.28 -37028106.11 -37028105.92 0.0289 0.0196
 Jupiter -106091-08-29 00:43 J -37028074.65 -37028074.47 -37028074.28 0.0525 0.0305
 Uranus -106090-03-29 18:57 J -37027861.79 -37027861.71 -37027861.59 0.0139 0.0127
 Jupiter -106084-03-10 02:09 J -37025689.45 -37025689.41 -37025689.35 0.0506 0.0493
 Jupiter -106079-09-02 08:23 J -37023687.35 -37023687.15 -37023686.94 0.0523 0.0168
 Mars -106076-01-14 19:55 J -37022821.88 -37022821.67 -37022821.47 0.1811 0.0802
 Saturn -106076-01-30 03:07 J -37022806.59 -37022806.37 -37022806.14 0.0270 0.0113

Saturn -106061-08-03 23:59 J -37017141.70 -37017141.50 -37017141.28 0.0291 0.0124
 Uranus -106048-09-10 23:16 J -37012355.62 -37012355.53 -37012355.43 0.0138 0.0126
 Saturn -106047-01-24 19:40 J -37012219.92 -37012219.68 -37012219.43 0.0271 0.0108
 Uranus -106047-09-15 02:23 J -37011986.64 -37011986.40 -37011986.15 0.0139 0.0027
 Pluto -106046-02-21 04:47 J -37011827.55 -37011827.30 -37011827.02 0.0065 0.0011
 Uranus -106046-09-19 14:09 J -37011617.13 -37011616.91 -37011616.68 0.0140 0.0048
 Saturn -106032-07-29 15:35 J -37006555.06 -37006554.85 -37006554.63 0.0289 0.0129
 Mars -106023-07-17 15:50 J -37003279.98 -37003279.84 -37003279.70 0.1715 0.1085
 Neptune -106020-01-28 11:59 J -37002354.13 -37002354.00 -37002353.86 0.0089 0.0077
 Neptune -106019-01-31 01:40 J -37001986.65 -37001986.43 -37001986.18 0.0089 0.0035
 Neptune -106018-02-02 18:57 J -37001618.99 -37001618.71 -37001618.43 0.0089 0.0009
 Saturn -106017-02-01 14:09 J -37001255.10 -37001254.91 -37001254.71 0.0269 0.0170
 Neptune -106017-02-05 12:57 J -37001251.19 -37001250.96 -37001250.71 0.0089 0.0034
 Neptune -106016-02-07 01:55 J -37000883.61 -37000883.42 -37000883.20 0.0089 0.0059
 Jupiter -106013-03-04 05:16 J -36999762.53 -36999762.28 -36999762.03 0.0503 0.0053
 Uranus -106008-03-20 02:52 J -36997920.59 -36997920.38 -36997920.14 0.0140 0.0073
 Jupiter -106008-08-27 23:16 J -36997759.68 -36997759.53 -36997759.37 0.0525 0.0380
 Uranus -106007-03-24 19:55 J -36997550.91 -36997550.67 -36997550.40 0.0139 0.0037
 Uranus -106006-03-30 02:23 J -36997180.53 -36997180.40 -36997180.25 0.0139 0.0116
 Saturn -106002-08-06 09:50 J -36995590.27 -36995590.09 -36995589.91 0.0291 0.0193
 Jupiter -106001-03-09 09:35 J -36995374.22 -36995374.10 -36995373.97 0.0505 0.0430

106TH MILLENNIUM BCE

This is a list of transits of Moon in the 106th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-105996-09-01	17:59 J	-36993371.97	-36993371.75	-36993371.53	0.0523	0.0083	
Saturn	-105988-01-25	23:45 J	-36990668.76	-36990668.51	-36990668.25	0.0271	0.0050	
Jupiter	-105984-09-05	20:38 J	-36988984.72	-36988984.64	-36988984.55	0.0522	0.0480	
Saturn	-105973-07-31	03:50 J	-36985003.56	-36985003.34	-36985003.11	0.0289	0.0055	
Uranus	-105964-09-11	07:55 J	-36981674.29	-36981674.17	-36981674.01	0.0138	0.0112	
Uranus	-105963-09-15	10:19 J	-36981305.30	-36981305.07	-36981304.82	0.0139	0.0039	
Uranus	-105962-09-19	23:16 J	-36980935.73	-36980935.53	-36980935.30	0.0139	0.0064	
Uranus	-105961-09-23	04:19 J	-36980566.33	-36980566.32	-36980566.29	0.0140	0.0139	
Pluto	-105959-08-22	23:31 J	-36979867.70	-36979867.52	-36979867.31	0.0079	0.0045	
Saturn	-105958-02-02	23:45 J	-36979703.64	-36979703.51	-36979703.37	0.0269	0.0230	
Mars	-105944-07-20	01:11 J	-36974422.64	-36974422.45	-36974422.25	0.1712	0.0221	
Saturn	-105943-08-07	19:11 J	-36974038.79	-36974038.70	-36974038.61	0.0292	0.0269	
Neptune	-105938-08-02	15:21 J	-36972218.00	-36972217.86	-36972217.71	0.0088	0.0070	
Neptune	-105937-08-04	01:11 J	-36971850.67	-36971850.45	-36971850.19	0.0088	0.0032	
Neptune	-105936-08-06	08:09 J	-36971483.39	-36971483.16	-36971482.92	0.0088	0.0008	
Neptune	-105935-08-08	12:43 J	-36971116.21	-36971115.97	-36971115.73	0.0088	0.0030	
Neptune	-105934-08-10	23:16 J	-36970748.70	-36970748.53	-36970748.32	0.0088	0.0053	
Jupiter	-105930-03-04	10:33 J	-36969447.29	-36969447.06	-36969446.83	0.0502	0.0122	
Saturn	-105929-01-28	11:59 J	-36969117.25	-36969117.00	-36969116.76	0.0270	0.0012	
Jupiter	-105925-08-27	05:31 J	-36967444.37	-36967444.27	-36967444.17	0.0526	0.0470	
Uranus	-105924-03-20	09:35 J	-36967239.34	-36967239.10	-36967238.85	0.0140	0.0059	
Uranus	-105923-03-25	03:07 J	-36966869.62	-36966869.37	-36966869.10	0.0139	0.0024	
Uranus	-105922-03-30	09:35 J	-36966499.16	-36966499.10	-36966498.99	0.0139	0.0131	
Jupiter	-105918-03-09	06:14 J	-36965059.42	-36965059.24	-36965059.05	0.0504	0.0341	
Saturn	-105914-08-02	21:35 J	-36963451.83	-36963451.60	-36963451.37	0.0290	0.0023	
Jupiter	-105913-08-31	11:45 J	-36963057.23	-36963057.01	-36963056.78	0.0524	0.0011	

Jupiter -105901-09-05 07:55 J -36958669.30 -36958669.17 -36958669.03 0.0522 0.0403
 Saturn -105900-01-22 05:45 J -36958530.41 -36958530.26 -36958530.08 0.0271 0.0211
 Saturn -105885-07-27 10:04 J -36952865.21 -36952865.08 -36952864.93 0.0289 0.0234
 Uranus -105880-09-11 17:45 J -36950992.85 -36950992.76 -36950992.62 0.0138 0.0121
 Uranus -105879-09-15 19:11 J -36950623.93 -36950623.70 -36950623.44 0.0139 0.0022
 Uranus -105878-09-20 09:35 J -36950254.32 -36950254.10 -36950253.88 0.0139 0.0052
 Mars -105871-01-11 07:11 J -36947949.29 -36947949.20 -36947949.11 0.1799 0.1574
 Saturn -105870-01-30 04:47 J -36947565.53 -36947565.30 -36947565.05 0.0270 0.0076
 Mars -105865-07-22 13:26 J -36945565.06 -36945564.94 -36945564.83 0.1708 0.1351
 Neptune -105855-01-30 06:28 J -36942086.43 -36942086.23 -36942085.98 0.0089 0.0053
 Saturn -105855-08-04 15:07 J -36941900.09 -36941899.87 -36941899.65 0.0290 0.0100
 Neptune -105854-02-02 03:21 J -36941718.61 -36941718.36 -36941718.11 0.0089 0.0021
 Neptune -105853-02-04 14:52 J -36941351.15 -36941350.88 -36941350.61 0.0089 0.0014
 Neptune -105852-02-06 13:40 J -36940983.14 -36940982.93 -36940982.70 0.0089 0.0048
 Neptune -105851-02-08 22:47 J -36940615.62 -36940615.55 -36940615.43 0.0089 0.0083
 Jupiter -105847-03-03 02:52 J -36939132.61 -36939132.38 -36939132.15 0.0502 0.0216
 Saturn -105841-01-24 16:04 J -36936979.05 -36936978.83 -36936978.60 0.0271 0.0142
 Uranus -105840-03-20 16:47 J -36936558.02 -36936557.80 -36936557.55 0.0140 0.0068
 Uranus -105839-03-25 10:47 J -36936188.28 -36936188.05 -36936187.79 0.0139 0.0041
 Uranus -105838-03-30 17:16 J -36935817.90 -36935817.78 -36935817.63 0.0139 0.0119
 Jupiter -105835-03-08 01:26 J -36934744.64 -36934744.44 -36934744.23 0.0504 0.0252
 Jupiter -105830-08-31 21:21 J -36932741.82 -36932741.61 -36932741.39 0.0524 0.0096
 Saturn -105826-07-29 20:52 J -36931313.82 -36931313.63 -36931313.43 0.0290 0.0160
 Jupiter -105818-09-05 04:04 J -36928354.51 -36928354.33 -36928354.14 0.0523 0.0302
 Saturn -105811-01-31 19:11 J -36926013.92 -36926013.70 -36926013.48 0.0270 0.0142
 Pluto -105800-02-21 21:07 J -36921974.85 -36921974.62 -36921974.34 0.0065 0.0029
 Pluto -105799-02-23 15:21 J -36921607.99 -36921607.86 -36921607.66 0.0066 0.0052
 Saturn -105796-08-06 02:23 J -36920348.60 -36920348.40 -36920348.21 0.0291 0.0175
 Uranus -105796-09-12 04:19 J -36920311.46 -36920311.32 -36920311.15 0.0138 0.0105
 Uranus -105795-09-16 05:16 J -36919942.52 -36919942.28 -36919942.04 0.0139 0.0033

Uranus -105794-09-20 19:55 J -36919572.87 -36919572.67 -36919572.45 0.0139 0.0069
 Mars -105792-01-14 01:26 J -36919091.62 -36919091.44 -36919091.25 0.1804 0.0492
 Saturn -105782-01-26 05:45 J -36915427.50 -36915427.26 -36915427.01 0.0271 0.0070
 Neptune -105774-08-02 07:26 J -36912317.27 -36912317.19 -36912317.08 0.0088 0.0082
 Neptune -105773-08-03 14:38 J -36911950.07 -36911949.89 -36911949.67 0.0088 0.0048
 Neptune -105772-08-05 19:26 J -36911582.94 -36911582.69 -36911582.45 0.0088 0.0021
 Neptune -105771-08-08 07:26 J -36911215.42 -36911215.19 -36911214.94 0.0088 0.0016
 Neptune -105770-08-10 07:40 J -36910848.37 -36910848.18 -36910847.94 0.0088 0.0042
 Neptune -105769-08-11 21:21 J -36910480.71 -36910480.61 -36910480.46 0.0088 0.0077
 Saturn -105767-07-31 11:45 J -36909762.23 -36909762.01 -36909761.79 0.0290 0.0087
 Jupiter -105764-03-02 04:04 J -36908817.52 -36908817.33 -36908817.14 0.0502 0.0286
 Uranus -105756-03-21 01:40 J -36905876.66 -36905876.43 -36905876.16 0.0140 0.0055
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 Uranus -105754-03-31 02:52 J -36905136.40 -36905136.38 -36905136.29 0.0139 0.0136
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 Jupiter -105752-03-07 07:11 J -36904429.43 -36904429.20 -36904428.97 0.0503 0.0180
 Jupiter -105747-08-30 15:07 J -36902427.09 -36902426.87 -36902426.66 0.0525 0.0201
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 Saturn -105737-08-07 08:38 J -36898797.25 -36898797.14 -36898797.00 0.0291 0.0246
 Jupiter -105735-09-04 05:59 J -36898039.44 -36898039.25 -36898039.05 0.0524 0.0206
 Saturn -105723-01-27 22:19 J -36893875.82 -36893875.57 -36893875.32 0.0270 0.0002
 Pluto -105713-08-24 01:26 J -36890014.66 -36890014.44 -36890014.19 0.0079 0.0022
 Uranus -105712-09-12 15:35 J -36889629.99 -36889629.85 -36889629.71 0.0138 0.0113
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 Uranus -105710-09-21 07:11 J -36888891.41 -36888891.20 -36888890.97 0.0140 0.0058
 Saturn -105708-08-02 01:11 J -36888210.68 -36888210.45 -36888210.22 0.0290 0.0018
 Saturn -105694-01-22 09:07 J -36883289.26 -36883289.12 -36883288.98 0.0271 0.0229
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 Uranus -105671-03-26 08:38 J -36874825.37 -36874825.14 -36874824.89 0.0139 0.0048
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 Jupiter -105669-03-05 19:55 J -36874114.91 -36874114.67 -36874114.43 0.0503 0.0080
 Saturn -105664-01-29 12:57 J -36872324.20 -36872323.96 -36872323.71 0.0270 0.0065
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 Uranus -105587-03-26 22:19 J -36844143.81 -36844143.57 -36844143.32 0.0139 0.0040

Jupiter -105586-03-06 08:52 J -36843799.38 -36843799.13 -36843798.89 0.0503 0.0020
 Mars -105581-07-23 02:38 J -36841833.47 -36841833.39 -36841833.30 0.1713 0.1512
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 Saturn -105576-01-24 21:50 J -36840186.81 -36840186.59 -36840186.36 0.0271 0.0112
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 Pluto -105554-02-23 19:40 J -36832121.88 -36832121.68 -36832121.42 0.0065 0.0033
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 Uranus -105543-09-17 12:28 J -36827898.22 -36827897.98 -36827897.73 0.0139 0.0010
 Uranus -105542-09-22 03:35 J -36827528.57 -36827528.35 -36827528.13 0.0140 0.0062
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 Mars -105508-01-14 05:16 J -36815360.48 -36815360.28 -36815360.09 0.1798 0.0506
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 Uranus -105504-03-22 10:19 J -36813832.32 -36813832.07 -36813831.80 0.0140 0.0045
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 Saturn -105502-08-01 02:23 J -36812970.62 -36812970.40 -36812970.18 0.0289 0.0101
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Jupiter -105491-03-10 08:09 J -36809096.33 -36809096.16 -36809095.98 0.0504 0.0340
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 Jupiter -105474-09-07 16:19 J -36802705.92 -36802705.82 -36802705.72 0.0523 0.0464
 Saturn -105472-08-07 07:11 J -36802006.35 -36802006.20 -36802006.04 0.0290 0.0207
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 Uranus -105459-09-17 22:19 J -36797216.80 -36797216.57 -36797216.33 0.0139 0.0021
 Saturn -105458-01-28 06:57 J -36797084.47 -36797084.21 -36797083.95 0.0271 0.0017
 Uranus -105458-09-22 12:28 J -36796847.17 -36796846.98 -36796846.77 0.0139 0.0079
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 Neptune -105442-08-09 11:59 J -36791047.23 -36791047.00 -36791046.76 0.0088 0.0018
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 Jupiter -105420-03-04 17:02 J -36783169.02 -36783168.79 -36783168.56 0.0501 0.0111
 Uranus -105420-03-22 20:23 J -36783150.91 -36783150.65 -36783150.37 0.0140 0.0033
 Uranus -105419-03-27 20:52 J -36782780.86 -36782780.63 -36782780.38 0.0139 0.0050
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 Saturn -105413-08-08 07:55 J -36780455.27 -36780455.17 -36780455.04 0.0290 0.0253
 Jupiter -105408-03-09 13:11 J -36778781.15 -36778780.95 -36778780.73 0.0503 0.0288
 Jupiter -105403-09-02 13:55 J -36776778.14 -36776777.92 -36776777.69 0.0525 0.0058
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 Jupiter -105391-09-07 07:11 J -36772390.33 -36772390.20 -36772390.06 0.0523 0.0413

Saturn -105384-08-02 14:23 J -36769869.14 -36769868.90 -36769868.66 0.0289 0.0008
 Mars -105376-07-22 10:04 J -36766958.25 -36766958.08 -36766957.91 0.1721 0.0582
 Uranus -105376-09-14 07:55 J -36766904.33 -36766904.17 -36766903.98 0.0138 0.0097
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 Saturn -105370-01-23 17:16 J -36764946.93 -36764946.78 -36764946.59 0.0273 0.0196
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 Jupiter -105337-03-03 22:19 J -36752853.81 -36752853.57 -36752853.33 0.0501 0.0158
 Uranus -105337-03-18 03:21 J -36752839.44 -36752839.36 -36752839.24 0.0141 0.0130
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 Uranus -105335-03-28 06:43 J -36752099.43 -36752099.22 -36752098.98 0.0140 0.0067
 Jupiter -105325-03-08 22:19 J -36748465.77 -36748465.57 -36748465.36 0.0503 0.0238
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 Jupiter -105320-09-02 04:33 J -36746462.52 -36746462.31 -36746462.10 0.0526 0.0117
 Saturn -105311-01-24 17:16 J -36743395.99 -36743395.78 -36743395.57 0.0273 0.0154
 Pluto -105308-02-25 04:47 J -36742268.50 -36742268.30 -36742268.06 0.0065 0.0036
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 Pluto -105307-02-26 15:50 J -36741902.01 -36741901.84 -36741901.64 0.0066 0.0048
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 Neptune -105116-08-03 21:50 J -36671980.68 -36671980.59 -36671980.49 0.0088 0.0081
 Neptune -105115-08-06 05:45 J -36671613.46 -36671613.26 -36671613.02 0.0088 0.0045
 Neptune -105114-08-08 13:55 J -36671246.15 -36671245.92 -36671245.68 0.0088 0.0019
 Neptune -105113-08-09 17:31 J -36670879.01 -36670878.77 -36670878.52 0.0088 0.0018
 Neptune -105112-08-12 05:45 J -36670511.46 -36670511.26 -36670511.03 0.0088 0.0043
 Neptune -105111-08-14 05:59 J -36670144.34 -36670144.25 -36670144.11 0.0088 0.0079
 Saturn -105105-01-22 23:59 J -36668156.58 -36668156.50 -36668156.38 0.0274 0.0252
 Saturn -105104-02-04 06:43 J -36667778.32 -36667778.22 -36667778.11 0.0271 0.0247
 Mars -105092-07-23 06:14 J -36663226.41 -36663226.24 -36663226.07 0.1726 0.0872
 Saturn -105090-07-28 12:57 J -36662491.01 -36662490.96 -36662490.89 0.0286 0.0276
 Saturn -105089-08-09 05:59 J -36662113.28 -36662113.25 -36662113.18 0.0289 0.0283
 Jupiter -105088-03-02 10:04 J -36661908.24 -36661908.08 -36661907.91 0.0500 0.0364
 Uranus -105085-03-19 20:23 J -36660794.81 -36660794.65 -36660794.48 0.0141 0.0108
 Uranus -105084-03-24 17:45 J -36660425.03 -36660424.76 -36660424.49 0.0140 0.0014
 Uranus -105083-03-29 22:47 J -36660054.76 -36660054.55 -36660054.32 0.0140 0.0071
 Jupiter -105076-03-07 14:23 J -36657520.14 -36657519.90 -36657519.66 0.0501 0.0047

Saturn -105075-01-30 01:55 J -36657191.66 -36657191.42 -36657191.17 0.0273 0.0032
 Jupiter -105071-08-31 21:07 J -36655516.80 -36655516.62 -36655516.43 0.0528 0.0310
 Pluto -105062-02-27 12:14 J -36652415.22 -36652414.99 -36652414.72 0.0066 0.0028
 Pluto -105061-02-29 01:40 J -36652048.52 -36652048.43 -36652048.27 0.0066 0.0058
 Saturn -105060-08-04 14:09 J -36651526.14 -36651525.91 -36651525.67 0.0287 0.0039
 Jupiter -105059-09-05 06:43 J -36651129.42 -36651129.22 -36651129.01 0.0526 0.0183
 Saturn -105046-01-24 05:02 J -36646605.47 -36646605.29 -36646605.10 0.0274 0.0195
 Uranus -105040-09-16 07:26 J -36644178.39 -36644178.19 -36644177.97 0.0138 0.0078
 Uranus -105039-09-20 12:57 J -36643809.19 -36643808.96 -36643808.72 0.0139 0.0013
 Uranus -105038-09-24 22:19 J -36643439.76 -36643439.57 -36643439.36 0.0139 0.0084
 Neptune -105033-01-31 03:35 J -36641850.48 -36641850.35 -36641850.19 0.0089 0.0075
 Neptune -105032-02-02 02:09 J -36641482.64 -36641482.41 -36641482.15 0.0089 0.0034
 Neptune -105031-02-04 11:45 J -36641115.27 -36641115.01 -36641114.73 0.0089 0.0008
 Saturn -105031-07-29 22:47 J -36640939.70 -36640939.55 -36640939.39 0.0287 0.0210
 Neptune -105030-02-07 11:16 J -36640747.26 -36640747.03 -36640746.76 0.0089 0.0035
 Neptune -105029-02-09 21:21 J -36640379.79 -36640379.61 -36640379.41 0.0089 0.0060
 Saturn -105016-01-31 12:28 J -36635640.22 -36635639.98 -36635639.73 0.0272 0.0089
 Jupiter -105005-03-01 17:31 J -36631592.88 -36631592.77 -36631592.65 0.0499 0.0440
 Uranus -105001-03-20 10:47 J -36630113.21 -36630113.05 -36630112.86 0.0141 0.0104
 Saturn -105001-08-05 23:45 J -36629974.73 -36629974.51 -36629974.28 0.0288 0.0112

105TH MILLENNIUM BCE

This is a list of transits of Moon in the 105th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-105000-03-25 07:40 J	-36629743.44	-36629743.18	-36629742.91	0.0140	0.0011		
Uranus	-104999-03-30 14:09 J	-36629373.10	-36629372.91	-36629372.70	0.0140	0.0090		
Jupiter	-104993-03-06 03:50 J	-36627205.59	-36627205.34	-36627205.10	0.0500	0.0041		
Jupiter	-104988-08-30 21:35 J	-36625201.75	-36625201.60	-36625201.45	0.0528	0.0381		
Saturn	-104987-01-25 18:28 J	-36625053.95	-36625053.73	-36625053.51	0.0273	0.0131		
Jupiter	-104981-03-11 09:07 J	-36622817.23	-36622817.12	-36622817.00	0.0502	0.0434		
Jupiter	-104976-09-04 17:16 J	-36620813.99	-36620813.78	-36620813.55	0.0526	0.0108		
Pluto	-104975-08-30 00:43 J	-36620454.67	-36620454.47	-36620454.25	0.0079	0.0039		
Saturn	-104972-07-31 14:23 J	-36619388.10	-36619387.90	-36619387.70	0.0287	0.0137		
Mars	-104966-07-19 19:26 J	-36617208.81	-36617208.69	-36617208.57	0.1739	0.1283		
Saturn	-104957-02-02 20:23 J	-36614088.87	-36614088.65	-36614088.43	0.0272	0.0150		
Uranus	-104956-09-16 17:59 J	-36613496.95	-36613496.75	-36613496.51	0.0138	0.0068		
Uranus	-104955-09-21 00:43 J	-36613127.70	-36613127.47	-36613127.23	0.0139	0.0006		
Uranus	-104954-09-25 08:23 J	-36612758.31	-36612758.15	-36612757.97	0.0139	0.0102		
Neptune	-104951-08-05 17:16 J	-36611712.92	-36611712.78	-36611712.60	0.0088	0.0067		
Neptune	-104950-08-07 20:09 J	-36611345.89	-36611345.66	-36611345.41	0.0088	0.0030		
Neptune	-104949-08-09 09:07 J	-36610978.36	-36610978.12	-36610977.87	0.0088	0.0006		
Neptune	-104948-08-11 09:07 J	-36610611.33	-36610611.12	-36610610.87	0.0088	0.0033		
Neptune	-104947-08-13 22:19 J	-36610243.74	-36610243.57	-36610243.35	0.0088	0.0056		
Saturn	-104942-08-08 10:19 J	-36608423.25	-36608423.07	-36608422.88	0.0288	0.0186		
Mars	-104940-01-13 05:45 J	-36607899.45	-36607899.26	-36607899.08	0.1783	0.0180		
Saturn	-104928-01-27 13:26 J	-36603502.17	-36603501.94	-36603501.69	0.0273	0.0062		
Uranus	-104917-03-21 00:14 J	-36599431.68	-36599431.49	-36599431.29	0.0141	0.0094		
Uranus	-104916-03-25 20:23 J	-36599061.92	-36599061.65	-36599061.38	0.0140	0.0000		
Uranus	-104915-03-31 03:35 J	-36598691.55	-36598691.35	-36598691.14	0.0140	0.0084		
Saturn	-104913-08-02 06:43 J	-36597836.44	-36597836.22	-36597835.99	0.0287	0.0066		
Jupiter	-104910-03-06 11:59 J	-36596890.23	-36596890.00	-36596889.76	0.0500	0.0109		

Jupiter -104905-08-30 04:47 J -36594886.40 -36594886.30 -36594886.20 0.0528 0.0466
 Saturn -104898-02-04 06:57 J -36592537.36 -36592537.21 -36592537.05 0.0272 0.0215
 Jupiter -104898-03-11 05:02 J -36592502.45 -36592502.29 -36592502.10 0.0502 0.0361
 Jupiter -104893-09-03 06:57 J -36590499.43 -36590499.21 -36590498.98 0.0527 0.0004
 Mars -104887-07-21 20:38 J -36588351.81 -36588351.64 -36588351.47 0.1735 0.0315
 Saturn -104883-08-09 23:45 J -36586871.61 -36586871.51 -36586871.41 0.0289 0.0258
 Jupiter -104881-09-08 03:50 J -36586111.46 -36586111.34 -36586111.22 0.0525 0.0430
 Uranus -104872-09-17 07:11 J -36582815.41 -36582815.20 -36582814.97 0.0138 0.0068
 Uranus -104871-09-21 15:06 J -36582446.10 -36582445.87 -36582445.64 0.0139 0.0023
 Uranus -104870-09-25 21:50 J -36582076.77 -36582076.59 -36582076.40 0.0139 0.0094
 Saturn -104869-01-30 07:26 J -36581950.44 -36581950.19 -36581949.93 0.0273 0.0008
 Neptune -104868-01-31 19:40 J -36581582.88 -36581582.68 -36581582.46 0.0089 0.0054
 Neptune -104867-02-03 18:57 J -36581214.96 -36581214.71 -36581214.44 0.0089 0.0025
 Neptune -104866-02-06 05:59 J -36580847.50 -36580847.25 -36580846.99 0.0089 0.0014
 Neptune -104865-02-09 02:23 J -36580479.63 -36580479.40 -36580479.15 0.0089 0.0044
 Neptune -104864-02-10 16:33 J -36580111.89 -36580111.81 -36580111.69 0.0089 0.0082
 Mars -104861-01-17 03:35 J -36579041.45 -36579041.35 -36579041.24 0.1788 0.1546
 Saturn -104854-08-04 18:57 J -36576284.95 -36576284.71 -36576284.47 0.0288 0.0007
 Saturn -104840-01-23 10:33 J -36571364.20 -36571364.06 -36571363.89 0.0274 0.0215
 Uranus -104833-03-21 12:14 J -36568750.19 -36568749.99 -36568749.79 0.0141 0.0092
 Uranus -104832-03-26 07:54 J -36568380.43 -36568380.17 -36568379.90 0.0140 0.0003
 Uranus -104831-03-31 16:18 J -36568009.99 -36568009.82 -36568009.64 0.0140 0.0102
 Jupiter -104827-03-05 05:59 J -36566575.49 -36566575.25 -36566575.02 0.0499 0.0183
 Saturn -104825-07-29 15:06 J -36565698.01 -36565697.87 -36565697.73 0.0286 0.0223
 Pluto -104816-02-28 11:59 J -36562562.24 -36562562.00 -36562561.72 0.0066 0.0024
 Pluto -104815-03-02 12:14 J -36562195.06 -36562194.99 -36562194.91 0.0066 0.0064
 Jupiter -104815-03-10 01:40 J -36562187.63 -36562187.43 -36562187.24 0.0501 0.0268
 Saturn -104810-01-31 19:26 J -36560398.94 -36560398.69 -36560398.43 0.0272 0.0078
 Jupiter -104810-09-03 19:40 J -36560183.90 -36560183.68 -36560183.46 0.0528 0.0074
 Mars -104808-07-23 22:33 J -36559494.68 -36559494.56 -36559494.43 0.1732 0.1215

Jupiter -104798-09-08 04:04 J -36555796.50 -36555796.33 -36555796.15 0.0525 0.0346
 Saturn -104795-08-06 00:14 J -36554733.72 -36554733.49 -36554733.25 0.0288 0.0078
 Uranus -104788-09-17 18:42 J -36552133.94 -36552133.72 -36552133.48 0.0138 0.0056
 Neptune -104787-08-04 20:52 J -36551812.68 -36551812.63 -36551812.53 0.0088 0.0085
 Uranus -104787-09-22 03:50 J -36551764.57 -36551764.34 -36551764.10 0.0138 0.0017
 Neptune -104786-08-07 11:02 J -36551445.24 -36551445.04 -36551444.82 0.0088 0.0047
 Uranus -104786-09-26 09:06 J -36551395.25 -36551395.12 -36551394.96 0.0139 0.0112
 Neptune -104785-08-08 11:30 J -36551078.24 -36551078.02 -36551077.77 0.0088 0.0023
 Neptune -104784-08-11 00:57 J -36550710.70 -36550710.46 -36550710.21 0.0088 0.0015
 Neptune -104783-08-13 03:21 J -36550343.56 -36550343.36 -36550343.13 0.0088 0.0040
 Neptune -104782-08-15 12:28 J -36549976.10 -36549975.98 -36549975.84 0.0088 0.0076
 Saturn -104781-01-26 02:09 J -36549812.61 -36549812.41 -36549812.20 0.0273 0.0146
 Saturn -104766-08-01 03:35 J -36544146.53 -36544146.35 -36544146.15 0.0287 0.0156
 Saturn -104751-02-02 03:35 J -36538847.56 -36538847.35 -36538847.11 0.0272 0.0142
 Uranus -104749-03-21 23:16 J -36538068.72 -36538068.53 -36538068.30 0.0141 0.0083
 Uranus -104748-03-26 19:26 J -36537698.96 -36537698.69 -36537698.43 0.0141 0.0012
 Uranus -104747-04-01 03:50 J -36537328.51 -36537328.34 -36537328.13 0.0140 0.0096
 Jupiter -104744-03-04 06:28 J -36536260.42 -36536260.23 -36536260.03 0.0499 0.0266
 Saturn -104736-08-07 05:59 J -36533182.45 -36533182.25 -36533182.05 0.0288 0.0143
 Jupiter -104732-03-09 05:59 J -36531872.47 -36531872.25 -36531872.01 0.0501 0.0207
 Pluto -104730-08-30 05:30 J -36530968.35 -36530968.27 -36530968.15 0.0079 0.0072
 Pluto -104729-08-31 11:16 J -36530601.21 -36530601.03 -36530600.83 0.0079 0.0053
 Jupiter -104727-09-02 18:42 J -36529868.94 -36529868.72 -36529868.50 0.0528 0.0156
 Saturn -104722-01-27 16:33 J -36528261.04 -36528260.81 -36528260.57 0.0273 0.0084
 Jupiter -104715-09-07 07:26 J -36525481.37 -36525481.19 -36525480.99 0.0526 0.0247
 Saturn -104707-08-02 10:18 J -36522595.29 -36522595.07 -36522594.84 0.0287 0.0094
 Uranus -104705-09-14 07:54 J -36521821.23 -36521821.17 -36521821.09 0.0137 0.0131
 Neptune -104704-01-31 00:28 J -36521682.57 -36521682.48 -36521682.31 0.0089 0.0079
 Uranus -104704-09-18 10:04 J -36521452.31 -36521452.08 -36521451.84 0.0138 0.0055
 Neptune -104703-02-02 13:26 J -36521315.16 -36521314.94 -36521314.69 0.0089 0.0039

Uranus -104703-09-22 19:40 J -36521082.90 -36521082.68 -36521082.44 0.0138 0.0036
 Neptune -104702-02-05 07:54 J -36520947.45 -36520947.17 -36520946.90 0.0089 0.0011
 Uranus -104702-09-26 23:59 J -36520713.65 -36520713.50 -36520713.32 0.0139 0.0105
 Neptune -104701-02-08 00:42 J -36520579.70 -36520579.47 -36520579.21 0.0089 0.0030
 Neptune -104700-02-09 14:09 J -36520212.10 -36520211.91 -36520211.67 0.0089 0.0057
 Saturn -104692-02-03 13:11 J -36517296.11 -36517295.95 -36517295.78 0.0272 0.0203
 Mars -104682-07-20 10:18 J -36513477.23 -36513477.07 -36513476.91 0.1745 0.0980
 Saturn -104677-08-08 14:09 J -36511631.07 -36511630.91 -36511630.75 0.0288 0.0204
 Uranus -104665-03-22 12:57 J -36507387.18 -36507386.96 -36507386.74 0.0141 0.0080
 Uranus -104664-03-27 08:52 J -36507017.39 -36507017.13 -36507016.86 0.0141 0.0014
 Saturn -104663-01-28 23:59 J -36506709.75 -36506709.50 -36506709.24 0.0273 0.0028
 Uranus -104663-04-01 17:59 J -36506646.89 -36506646.75 -36506646.59 0.0140 0.0114
 Jupiter -104661-03-03 12:28 J -36505945.17 -36505944.98 -36505944.78 0.0499 0.0309
 Mars -104656-01-13 14:38 J -36504168.10 -36504167.89 -36504167.69 0.1777 0.0339
 Jupiter -104649-03-08 05:59 J -36501557.48 -36501557.25 -36501557.03 0.0500 0.0149
 Saturn -104648-08-03 09:06 J -36501044.37 -36501044.12 -36501043.88 0.0287 0.0037
 Jupiter -104644-09-02 01:11 J -36499553.64 -36499553.45 -36499553.26 0.0528 0.0243
 Saturn -104634-01-23 08:23 J -36496123.26 -36496123.15 -36496123.02 0.0275 0.0239
 Saturn -104633-02-05 23:16 J -36495744.60 -36495744.53 -36495744.45 0.0272 0.0258
 Jupiter -104632-09-06 18:28 J -36495165.95 -36495165.73 -36495165.51 0.0527 0.0176
 Neptune -104622-08-06 11:59 J -36491545.13 -36491545.00 -36491544.84 0.0088 0.0072
 Neptune -104621-08-08 00:28 J -36491177.70 -36491177.48 -36491177.23 0.0088 0.0035
 Uranus -104621-09-14 22:18 J -36491139.65 -36491139.57 -36491139.46 0.0137 0.0125
 Neptune -104620-08-10 04:33 J -36490810.54 -36490810.31 -36490810.06 0.0088 0.0010
 Uranus -104620-09-18 23:30 J -36490770.75 -36490770.52 -36490770.27 0.0138 0.0042
 Neptune -104619-08-12 12:57 J -36490443.20 -36490442.96 -36490442.71 0.0088 0.0028
 Uranus -104619-09-23 10:33 J -36490401.29 -36490401.06 -36490400.82 0.0138 0.0030
 Saturn -104618-08-10 18:42 J -36490079.81 -36490079.72 -36490079.61 0.0288 0.0259
 Neptune -104618-08-14 21:35 J -36490075.77 -36490075.60 -36490075.39 0.0088 0.0054
 Uranus -104618-09-27 13:40 J -36490032.01 -36490031.93 -36490031.80 0.0139 0.0125

Saturn -104604-01-29 23:16 J -36485158.79 -36485158.53 -36485158.27 0.0273 0.0022
 Mars -104603-07-23 01:26 J -36484619.61 -36484619.44 -36484619.26 0.1740 0.0676
 Saturn -104589-08-04 05:16 J -36479493.51 -36479493.28 -36479493.04 0.0287 0.0016
 Uranus -104581-03-23 02:23 J -36476705.62 -36476705.40 -36476705.15 0.0141 0.0068
 Uranus -104580-03-27 22:47 J -36476335.80 -36476335.55 -36476335.28 0.0141 0.0026
 Uranus -104579-04-02 07:54 J -36475965.31 -36475965.17 -36475964.98 0.0140 0.0109
 Jupiter -104578-03-03 10:04 J -36475630.23 -36475630.08 -36475629.93 0.0498 0.0379
 Mars -104577-01-17 12:42 J -36475310.04 -36475309.97 -36475309.89 0.1781 0.1628
 Saturn -104575-01-24 15:50 J -36474572.01 -36474571.84 -36474571.66 0.0275 0.0192
 Pluto -104570-03-02 23:59 J -36472708.75 -36472708.50 -36472708.24 0.0066 0.0011
 Jupiter -104566-03-08 14:38 J -36471242.14 -36471241.89 -36471241.65 0.0500 0.0081
 Jupiter -104561-09-01 13:40 J -36469238.12 -36469237.93 -36469237.74 0.0529 0.0296
 Saturn -104560-07-30 00:57 J -36468906.58 -36468906.46 -36468906.32 0.0285 0.0236
 Jupiter -104554-03-13 05:30 J -36466854.32 -36466854.27 -36466854.21 0.0502 0.0488
 Jupiter -104549-09-06 00:28 J -36464850.69 -36464850.48 -36464850.27 0.0527 0.0114
 Saturn -104545-01-31 22:04 J -36463607.83 -36463607.58 -36463607.34 0.0273 0.0067
 Neptune -104539-02-01 14:09 J -36461415.12 -36461414.91 -36461414.70 0.0089 0.0057
 Neptune -104538-02-04 08:52 J -36461047.36 -36461047.13 -36461046.87 0.0089 0.0030
 Neptune -104537-02-06 20:23 J -36460679.91 -36460679.65 -36460679.37 0.0089 0.0011
 Uranus -104537-09-15 14:52 J -36460457.99 -36460457.88 -36460457.74 0.0137 0.0117
 Neptune -104536-02-08 18:42 J -36460311.94 -36460311.72 -36460311.47 0.0089 0.0039
 Uranus -104536-09-19 15:21 J -36460089.09 -36460088.86 -36460088.61 0.0138 0.0041
 Neptune -104535-02-11 04:04 J -36459944.44 -36459944.33 -36459944.18 0.0089 0.0078
 Uranus -104535-09-24 02:38 J -36459719.60 -36459719.39 -36459719.15 0.0138 0.0050
 Uranus -104534-09-28 05:16 J -36459350.40 -36459350.28 -36459350.14 0.0139 0.0118
 Saturn -104530-08-06 05:16 J -36457942.50 -36457942.28 -36457942.06 0.0287 0.0062
 Mars -104524-07-25 07:40 J -36455762.23 -36455762.18 -36455762.13 0.1736 0.1650
 Saturn -104516-01-25 17:59 J -36453020.97 -36453020.75 -36453020.53 0.0275 0.0148
 Saturn -104501-07-30 22:18 J -36447355.75 -36447355.57 -36447355.39 0.0285 0.0187
 Uranus -104497-03-23 18:57 J -36446023.94 -36446023.71 -36446023.46 0.0141 0.0063

Uranus -104496-03-28 15:50 J -36445654.09 -36445653.84 -36445653.58 0.0141 0.0030
 Jupiter -104495-03-03 00:42 J -36445314.61 -36445314.47 -36445314.33 0.0498 0.0411
 Uranus -104495-04-03 00:57 J -36445283.55 -36445283.46 -36445283.36 0.0140 0.0129
 Saturn -104486-02-02 01:11 J -36442056.66 -36442056.45 -36442056.21 0.0273 0.0112
 Pluto -104484-09-01 00:42 J -36441114.65 -36441114.47 -36441114.25 0.0079 0.0046
 Jupiter -104483-03-07 15:50 J -36440927.08 -36440926.84 -36440926.60 0.0500 0.0038
 Pluto -104483-09-02 19:40 J -36440747.72 -36440747.68 -36440747.62 0.0079 0.0077
 Jupiter -104478-09-01 17:16 J -36438922.93 -36438922.78 -36438922.62 0.0529 0.0370
 Mars -104477-07-18 00:42 J -36438602.54 -36438602.47 -36438602.41 0.1754 0.1608
 Jupiter -104471-03-12 21:50 J -36436538.69 -36436538.59 -36436538.46 0.0501 0.0438
 Saturn -104471-08-07 06:42 J -36436391.43 -36436391.22 -36436391.00 0.0287 0.0110
 Jupiter -104466-09-06 14:23 J -36434535.12 -36434534.90 -36434534.67 0.0528 0.0044
 Saturn -104457-01-27 11:45 J -36431470.25 -36431470.01 -36431469.76 0.0275 0.0107
 Neptune -104457-08-07 05:45 J -36431277.45 -36431277.26 -36431277.06 0.0088 0.0052
 Neptune -104456-08-09 12:28 J -36430910.21 -36430909.98 -36430909.73 0.0088 0.0028
 Neptune -104455-08-11 22:18 J -36430542.80 -36430542.57 -36430542.32 0.0088 0.0010
 Neptune -104454-08-14 00:28 J -36430175.70 -36430175.48 -36430175.23 0.0088 0.0034
 Jupiter -104454-09-10 21:50 J -36430147.66 -36430147.59 -36430147.51 0.0526 0.0494
 Neptune -104453-08-15 13:54 J -36429808.04 -36429807.92 -36429807.75 0.0088 0.0072
 Uranus -104453-09-16 05:30 J -36429776.39 -36429776.27 -36429776.11 0.0137 0.0111
 Uranus -104452-09-20 05:16 J -36429407.52 -36429407.28 -36429407.03 0.0138 0.0028
 Uranus -104451-09-24 17:30 J -36429037.99 -36429037.77 -36429037.54 0.0138 0.0043
 Uranus -104450-09-28 18:57 J -36428668.73 -36428668.71 -36428668.65 0.0139 0.0138
 Saturn -104442-08-01 16:33 J -36425805.01 -36425804.81 -36425804.59 0.0285 0.0137
 Saturn -104427-02-03 03:35 J -36420505.56 -36420505.35 -36420505.14 0.0273 0.0153
 Uranus -104413-03-24 08:52 J -36415342.38 -36415342.13 -36415341.88 0.0141 0.0050
 Jupiter -104412-03-02 01:54 J -36414999.51 -36414999.42 -36414999.31 0.0498 0.0452
 Uranus -104412-03-29 06:28 J -36414972.48 -36414972.23 -36414971.98 0.0141 0.0043
 Saturn -104412-08-08 04:18 J -36414840.51 -36414840.32 -36414840.10 0.0287 0.0154
 Uranus -104411-04-03 15:35 J -36414601.97 -36414601.85 -36414601.73 0.0140 0.0124

Jupiter -104400-03-07 04:33 J -36410611.55 -36410611.31 -36410611.07 0.0499 0.0020
 Saturn -104398-01-28 06:57 J -36409919.46 -36409919.21 -36409918.96 0.0275 0.0066
 Mars -104398-07-21 02:23 J -36409745.57 -36409745.40 -36409745.24 0.1751 0.0729
 Jupiter -104395-09-01 08:52 J -36408607.25 -36408607.13 -36408607.00 0.0530 0.0434
 Jupiter -104388-03-11 20:23 J -36406223.82 -36406223.65 -36406223.48 0.0500 0.0365
 Saturn -104383-08-02 16:33 J -36404254.03 -36404253.81 -36404253.59 0.0285 0.0088
 Jupiter -104383-09-05 18:28 J -36404219.96 -36404219.73 -36404219.51 0.0528 0.0009
 Neptune -104375-01-31 17:45 J -36401514.85 -36401514.76 -36401514.66 0.0089 0.0082
 Neptune -104374-02-03 03:21 J -36401147.58 -36401147.36 -36401147.11 0.0089 0.0044
 Neptune -104373-02-06 02:38 J -36400779.64 -36400779.39 -36400779.12 0.0089 0.0016
 Mars -104372-01-12 21:06 J -36400437.84 -36400437.62 -36400437.41 0.1769 0.0043
 Neptune -104372-02-07 11:30 J -36400412.26 -36400412.02 -36400411.75 0.0089 0.0025
 Neptune -104371-02-10 10:18 J -36400044.26 -36400044.07 -36400043.83 0.0089 0.0053
 Jupiter -104371-09-10 16:47 J -36399831.90 -36399831.80 -36399831.69 0.0526 0.0460
 Uranus -104369-09-16 20:52 J -36399094.78 -36399094.63 -36399094.46 0.0137 0.0102
 Saturn -104368-02-03 23:30 J -36398954.70 -36398954.52 -36398954.33 0.0273 0.0197
 Uranus -104368-09-20 19:40 J -36398725.92 -36398725.68 -36398725.43 0.0138 0.0027
 Uranus -104367-09-25 07:54 J -36398356.38 -36398356.17 -36398355.95 0.0138 0.0062
 Uranus -104366-09-29 08:23 J -36397987.22 -36397987.15 -36397987.03 0.0139 0.0129
 Saturn -104353-08-08 23:30 J -36393289.67 -36393289.52 -36393289.33 0.0287 0.0204
 Saturn -104339-01-29 08:23 J -36388368.39 -36388368.15 -36388367.90 0.0275 0.0023
 Uranus -104330-03-20 13:26 J -36385031.02 -36385030.94 -36385030.84 0.0142 0.0132
 Uranus -104329-03-24 22:33 J -36384660.81 -36384660.56 -36384660.29 0.0141 0.0046
 Uranus -104328-03-29 21:06 J -36384290.85 -36384290.62 -36384290.37 0.0141 0.0047
 Pluto -104324-03-04 11:45 J -36382855.28 -36382855.01 -36382854.73 0.0066 0.0004
 Saturn -104324-08-03 22:33 J -36382702.79 -36382702.56 -36382702.33 0.0285 0.0035
 Mars -104319-07-23 11:30 J -36380888.19 -36380888.02 -36380887.85 0.1747 0.0848
 Jupiter -104317-03-06 04:47 J -36380296.55 -36380296.30 -36380296.05 0.0498 0.0074
 Jupiter -104312-08-31 12:28 J -36378292.05 -36378291.98 -36378291.88 0.0530 0.0488
 Saturn -104310-01-23 09:06 J -36377782.20 -36377782.12 -36377782.03 0.0276 0.0260

Saturn -104309-02-05 19:26 J -36377403.80 -36377403.69 -36377403.57 0.0273 0.0244
 Jupiter -104305-03-11 06:42 J -36375908.40 -36375908.22 -36375908.03 0.0500 0.0312
 Jupiter -104300-09-05 09:35 J -36373904.32 -36373904.10 -36373903.89 0.0528 0.0072
 Saturn -104295-07-29 09:35 J -36372116.16 -36372116.10 -36372116.01 0.0284 0.0269
 Saturn -104294-08-10 23:45 J -36371738.61 -36371738.51 -36371738.40 0.0287 0.0255
 Mars -104293-01-17 08:09 J -36371579.27 -36371579.16 -36371579.04 0.1774 0.1515
 Neptune -104293-08-06 11:45 J -36371377.11 -36371377.01 -36371376.86 0.0088 0.0076
 Neptune -104292-08-08 23:16 J -36371009.73 -36371009.53 -36371009.30 0.0088 0.0041
 Neptune -104291-08-11 00:57 J -36370642.70 -36370642.46 -36370642.20 0.0088 0.0014
 Neptune -104290-08-13 14:52 J -36370275.11 -36370274.88 -36370274.64 0.0088 0.0023
 Neptune -104289-08-14 15:21 J -36369908.05 -36369907.86 -36369907.64 0.0088 0.0049
 Neptune -104288-08-17 04:18 J -36369540.39 -36369540.32 -36369540.24 0.0088 0.0084
 Jupiter -104288-09-09 17:59 J -36369516.90 -36369516.75 -36369516.59 0.0527 0.0393
 Uranus -104285-09-17 11:02 J -36368413.20 -36368413.04 -36368412.86 0.0137 0.0095
 Uranus -104284-09-21 09:21 J -36368044.35 -36368044.11 -36368043.86 0.0138 0.0014
 Uranus -104283-09-25 22:04 J -36367674.79 -36367674.58 -36367674.35 0.0138 0.0056
 Saturn -104280-01-30 12:57 J -36366817.21 -36366816.96 -36366816.71 0.0275 0.0023
 Saturn -104265-08-05 05:02 J -36361151.53 -36361151.29 -36361151.05 0.0285 0.0023
 Saturn -104251-01-24 07:40 J -36356231.33 -36356231.18 -36356231.01 0.0276 0.0213
 Uranus -104246-03-21 00:14 J -36354349.52 -36354349.49 -36354349.43 0.0142 0.0139
 Uranus -104245-03-25 08:23 J -36353979.41 -36353979.15 -36353978.88 0.0141 0.0036
 Uranus -104244-03-30 08:09 J -36353609.38 -36353609.16 -36353608.91 0.0141 0.0056
 Uranus -104243-04-04 16:18 J -36353238.87 -36353238.82 -36353238.76 0.0140 0.0137
 Pluto -104238-09-03 12:14 J -36351261.21 -36351260.99 -36351260.74 0.0079 0.0028
 Saturn -104236-07-30 13:26 J -36350565.09 -36350564.94 -36350564.78 0.0284 0.0213
 Jupiter -104234-03-06 15:50 J -36349981.07 -36349980.84 -36349980.62 0.0498 0.0130
 Jupiter -104222-03-11 12:14 J -36345593.21 -36345592.99 -36345592.77 0.0499 0.0243
 Saturn -104221-02-01 15:06 J -36345266.12 -36345265.87 -36345265.61 0.0275 0.0071
 Jupiter -104217-09-04 07:26 J -36343589.41 -36343589.19 -36343588.97 0.0530 0.0151
 Neptune -104210-02-02 10:04 J -36341247.26 -36341247.08 -36341246.87 0.0089 0.0061

Neptune -104209-02-04 19:54 J -36340879.91 -36340879.67 -36340879.43 0.0089 0.0035
 Neptune -104208-02-06 17:45 J -36340512.03 -36340511.76 -36340511.48 0.0089 0.0007
 Neptune -104207-02-09 06:14 J -36340144.47 -36340144.24 -36340143.99 0.0089 0.0034
 Neptune -104206-02-11 23:59 J -36339776.63 -36339776.50 -36339776.32 0.0089 0.0074
 Saturn -104206-08-07 08:09 J -36339600.39 -36339600.16 -36339599.92 0.0285 0.0082
 Jupiter -104205-09-09 01:40 J -36339201.59 -36339201.43 -36339201.26 0.0528 0.0340
 Uranus -104201-09-18 02:23 J -36337731.59 -36337731.40 -36337731.21 0.0137 0.0086
 Uranus -104200-09-22 00:14 J -36337362.73 -36337362.49 -36337362.25 0.0138 0.0013
 Uranus -104199-09-26 12:42 J -36336993.17 -36336992.97 -36336992.76 0.0138 0.0074
 Mars -104193-07-18 23:16 J -36334870.66 -36334870.53 -36334870.39 0.1760 0.1254
 Saturn -104192-01-25 14:38 J -36334680.09 -36334679.89 -36334679.69 0.0276 0.0159
 Saturn -104177-08-01 00:57 J -36329013.65 -36329013.46 -36329013.26 0.0284 0.0153
 Saturn -104162-02-02 16:18 J -36323715.05 -36323714.82 -36323714.58 0.0274 0.0126
 Uranus -104162-03-21 13:40 J -36323668.04 -36323667.93 -36323667.77 0.0142 0.0120
 Uranus -104161-03-25 20:52 J -36323297.89 -36323297.63 -36323297.36 0.0141 0.0035
 Uranus -104160-03-30 21:50 J -36322927.81 -36322927.59 -36322927.35 0.0141 0.0058
 Jupiter -104151-03-05 17:45 J -36319665.99 -36319665.76 -36319665.52 0.0497 0.0199
 Saturn -104147-08-08 14:23 J -36318049.09 -36318048.90 -36318048.69 0.0285 0.0147
 Jupiter -104139-03-10 08:38 J -36315278.36 -36315278.14 -36315277.92 0.0499 0.0166
 Jupiter -104134-09-04 17:16 J -36313273.98 -36313273.78 -36313273.58 0.0530 0.0214
 Saturn -104133-01-28 03:35 J -36313128.58 -36313128.35 -36313128.12 0.0276 0.0100
 Neptune -104128-08-08 00:28 J -36311109.65 -36311109.48 -36311109.27 0.0088 0.0057
 Neptune -104127-08-10 14:52 J -36310742.11 -36310741.88 -36310741.64 0.0088 0.0034
 Neptune -104126-08-12 15:50 J -36310375.08 -36310374.84 -36310374.59 0.0088 0.0005
 Neptune -104125-08-14 03:50 J -36310007.57 -36310007.34 -36310007.08 0.0088 0.0029
 Neptune -104124-08-16 08:23 J -36309640.29 -36309640.15 -36309639.98 0.0088 0.0067
 Jupiter -104122-09-09 08:09 J -36308886.36 -36308886.16 -36308885.96 0.0528 0.0272
 Saturn -104118-08-03 13:54 J -36307462.14 -36307461.92 -36307461.70 0.0284 0.0087
 Uranus -104117-09-18 16:33 J -36307049.99 -36307049.81 -36307049.59 0.0137 0.0081
 Uranus -104116-09-22 15:06 J -36306681.12 -36306680.87 -36306680.63 0.0138 0.0002

Uranus -104115-09-27 03:35 J -36306311.55 -36306311.35 -36306311.12 0.0138 0.0069
 Mars -104114-07-22 08:38 J -36306013.31 -36306013.14 -36306012.96 0.1756 0.0324
 Saturn -104103-02-03 23:16 J -36302163.71 -36302163.53 -36302163.33 0.0274 0.0183
 Mars -104088-01-13 03:50 J -36296706.53 -36296706.34 -36296706.16 0.1762 0.0105
 Saturn -104088-08-10 04:18 J -36296497.47 -36296497.32 -36296497.17 0.0286 0.0213
 Pluto -104079-03-04 23:45 J -36293368.54 -36293368.51 -36293368.41 0.0066 0.0064
 Pluto -104078-03-06 16:47 J -36293002.07 -36293001.80 -36293001.52 0.0066 0.0011
 Uranus -104078-03-22 01:11 J -36292986.54 -36292986.45 -36292986.32 0.0142 0.0128
 Uranus -104077-03-26 06:57 J -36292616.48 -36292616.21 -36292615.94 0.0142 0.0024
 Uranus -104076-03-31 09:06 J -36292246.32 -36292246.12 -36292245.87 0.0141 0.0066
 Saturn -104074-01-29 17:16 J -36291577.04 -36291576.78 -36291576.53 0.0275 0.0037
 Jupiter -104068-03-04 14:09 J -36289351.09 -36289350.91 -36289350.71 0.0497 0.0282
 Saturn -104059-08-05 00:14 J -36285910.73 -36285910.49 -36285910.25 0.0285 0.0021
 Jupiter -104056-03-09 17:30 J -36284963.01 -36284962.77 -36284962.52 0.0499 0.0097
 Jupiter -104051-09-03 18:42 J -36282958.91 -36282958.72 -36282958.53 0.0530 0.0302
 Neptune -104046-02-01 04:18 J -36281347.36 -36281347.32 -36281347.23 0.0089 0.0086
 Saturn -104045-01-23 19:40 J -36280990.75 -36280990.68 -36280990.59 0.0276 0.0259
 Neptune -104045-02-04 00:14 J -36280979.71 -36280979.49 -36280979.25 0.0089 0.0049
 Neptune -104044-02-05 14:52 J -36280612.12 -36280611.88 -36280611.61 0.0089 0.0019
 Saturn -104044-02-05 13:54 J -36280612.02 -36280611.92 -36280611.80 0.0274 0.0245 *
 Neptune -104043-02-08 06:28 J -36280244.49 -36280244.23 -36280243.95 0.0089 0.0020
 Neptune -104042-02-11 01:54 J -36279876.62 -36279876.42 -36279876.20 0.0089 0.0050
 Jupiter -104039-09-08 01:40 J -36278571.64 -36278571.43 -36278571.22 0.0529 0.0173
 Mars -104035-07-24 10:33 J -36277156.19 -36277156.06 -36277155.93 0.1752 0.1126
 Uranus -104033-09-19 08:09 J -36276368.37 -36276368.16 -36276367.95 0.0137 0.0072
 Uranus -104032-09-23 06:14 J -36275999.48 -36275999.24 -36275999.00 0.0138 0.0001
 Uranus -104031-09-27 18:28 J -36275629.91 -36275629.73 -36275629.53 0.0138 0.0087
 Saturn -104030-07-31 00:57 J -36275323.57 -36275323.46 -36275323.33 0.0283 0.0238
 Saturn -104029-08-11 20:23 J -36274945.67 -36274945.65 -36274945.59 0.0286 0.0281
 Saturn -104015-01-31 03:35 J -36270025.62 -36270025.35 -36270025.09 0.0275 0.0032

Mars -104009-01-16 18:14 J -36267848.87 -36267848.74 -36267848.62 0.1767 0.1363

104TH MILLENNIUM BCE

This is a list of transits of Moon in the 104th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-104000-08-06 08:23 J	-36264359.39	-36264359.15	-36264358.91	0.0285	0.0048		
Uranus	-103994-03-22 17:16 J	-36262304.94	-36262304.78	-36262304.61	0.0142	0.0106		
Uranus	-103993-03-26 21:06 J	-36261934.89	-36261934.62	-36261934.34	0.0142	0.0024		
Uranus	-103992-04-01 00:28 J	-36261564.69	-36261564.48	-36261564.25	0.0141	0.0069		
Pluto	-103992-09-04 22:33 J	-36261407.81	-36261407.56	-36261407.31	0.0079	0.0002		
Saturn	-103986-01-25 13:40 J	-36259439.10	-36259438.93	-36259438.75	0.0276	0.0190		
Jupiter	-103985-03-03 22:04 J	-36259035.75	-36259035.58	-36259035.40	0.0496	0.0350		
Jupiter	-103973-03-08 09:35 J	-36254648.35	-36254648.10	-36254647.86	0.0498	0.0022		
Saturn	-103971-08-01 17:02 J	-36253771.97	-36253771.79	-36253771.60	0.0284	0.0168		
Jupiter	-103968-09-02 13:11 J	-36252644.09	-36252643.95	-36252643.81	0.0531	0.0406		
Neptune	-103964-08-07 15:50 J	-36251208.92	-36251208.84	-36251208.72	0.0088	0.0081		
Neptune	-103963-08-09 17:30 J	-36250841.96	-36250841.77	-36250841.54	0.0088	0.0046		
Neptune	-103962-08-12 05:02 J	-36250474.54	-36250474.29	-36250474.04	0.0088	0.0018		
Jupiter	-103961-03-13 10:04 J	-36250260.19	-36250260.08	-36250259.96	0.0499	0.0440		
Neptune	-103961-08-13 10:04 J	-36250107.30	-36250107.08	-36250106.83	0.0088	0.0018		
Neptune	-103960-08-15 16:04 J	-36249740.03	-36249739.83	-36249739.59	0.0088	0.0045		

Neptune -103959-08-18 02:52 J -36249372.47 -36249372.38 -36249372.24 0.0088 0.0078
 Saturn -103956-02-01 14:38 J -36248474.13 -36248473.89 -36248473.65 0.0275 0.0102
 Jupiter -103956-09-07 12:28 J -36248256.20 -36248255.98 -36248255.75 0.0529 0.0104
 Uranus -103949-09-19 22:33 J -36245686.77 -36245686.56 -36245686.34 0.0137 0.0067
 Uranus -103948-09-23 21:06 J -36245317.85 -36245317.62 -36245317.37 0.0138 0.0013
 Uranus -103947-09-28 09:21 J -36244948.30 -36244948.11 -36244947.90 0.0138 0.0080
 Saturn -103941-08-07 18:57 J -36242807.92 -36242807.71 -36242807.49 0.0285 0.0115
 Saturn -103927-01-27 06:42 J -36237887.43 -36237887.22 -36237886.98 0.0276 0.0122
 Saturn -103912-08-03 05:16 J -36232220.50 -36232220.28 -36232220.05 0.0284 0.0101
 Uranus -103910-03-23 05:45 J -36231623.39 -36231623.26 -36231623.08 0.0142 0.0114
 Uranus -103909-03-27 08:52 J -36231253.40 -36231253.13 -36231252.86 0.0142 0.0010
 Mars -103909-07-19 03:06 J -36231139.50 -36231139.37 -36231139.24 0.1767 0.1253
 Uranus -103908-04-01 13:40 J -36230883.13 -36230882.93 -36230882.71 0.0141 0.0077
 Jupiter -103902-03-03 09:50 J -36228721.18 -36228721.09 -36228720.98 0.0496 0.0445
 Saturn -103897-02-04 07:26 J -36226922.38 -36226922.19 -36226921.99 0.0274 0.0171
 Jupiter -103890-03-08 14:09 J -36224333.15 -36224332.91 -36224332.67 0.0497 0.0067
 Jupiter -103885-09-02 00:14 J -36222328.59 -36222328.49 -36222328.39 0.0531 0.0474
 Saturn -103882-08-10 08:38 J -36221256.31 -36221256.14 -36221255.96 0.0286 0.0181
 Neptune -103881-02-03 01:11 J -36221079.61 -36221079.45 -36221079.25 0.0089 0.0065
 Neptune -103880-02-04 14:09 J -36220712.15 -36220711.91 -36220711.65 0.0089 0.0039
 Neptune -103879-02-07 11:16 J -36220344.29 -36220344.03 -36220343.77 0.0089 0.0004
 Neptune -103878-02-09 20:52 J -36219976.87 -36219976.63 -36219976.36 0.0089 0.0029
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 Saturn -103868-01-28 18:14 J -36216335.99 -36216335.74 -36216335.48 0.0275 0.0055
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 Uranus -103863-09-28 22:18 J -36214266.74 -36214266.57 -36214266.38 0.0138 0.0097

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Jupiter -103285-03-13 14:38 J -36003351.03 -36003350.89 -36003350.75 0.0497 0.0396
 Jupiter -103280-09-08 08:23 J -36001346.37 -36001346.15 -36001345.93 0.0532 0.0029
 Saturn -103279-01-29 11:45 J -36001203.26 -36001203.01 -36001202.75 0.0278 0.0045
 Uranus -103278-09-21 00:14 J -36000603.63 -36000603.49 -36000603.32 0.0136 0.0102
 Uranus -103277-09-24 02:38 J -36000234.64 -36000234.39 -36000234.14 0.0137 0.0026
 Uranus -103276-09-28 08:23 J -35999865.36 -35999865.15 -35999864.92 0.0137 0.0051
 Uranus -103275-10-02 11:59 J -35999496.10 -35999496.00 -35999495.85 0.0138 0.0119
 Jupiter -103268-09-12 17:30 J -35996958.91 -35996958.77 -35996958.62 0.0530 0.0414
 Saturn -103264-08-05 16:18 J -35995536.06 -35995535.82 -35995535.58 0.0282 0.0045
 Mars -103262-07-24 11:16 J -35994818.20 -35994818.03 -35994817.86 0.1775 0.0565
 Pluto -103255-09-09 14:23 J -35992214.02 -35992213.90 -35992213.75 0.0079 0.0065
 Pluto -103254-09-11 15:50 J -35991846.92 -35991846.84 -35991846.71 0.0078 0.0072
 Saturn -103250-01-23 13:11 J -35990617.01 -35990616.95 -35990616.89 0.0279 0.0268
 Saturn -103249-02-06 11:45 J -35990238.13 -35990238.01 -35990237.87 0.0276 0.0232
 Uranus -103238-03-26 15:06 J -35986172.07 -35986171.87 -35986171.63 0.0142 0.0080
 Uranus -103237-03-30 14:09 J -35985802.16 -35985801.91 -35985801.64 0.0142 0.0025
 Mars -103236-01-13 14:09 J -35985513.09 -35985512.91 -35985512.73 0.1742 0.0159
 Uranus -103236-04-05 01:54 J -35985431.58 -35985431.42 -35985431.24 0.0141 0.0106
 Saturn -103235-07-31 17:16 J -35984948.88 -35984948.78 -35984948.67 0.0281 0.0247
 Saturn -103234-08-13 08:23 J -35984571.28 -35984571.15 -35984571.00 0.0283 0.0226
 Jupiter -103226-03-03 22:18 J -35981811.61 -35981811.57 -35981811.52 0.0494 0.0485
 Neptune -103223-02-03 21:06 J -35980743.78 -35980743.62 -35980743.40 0.0089 0.0065
 Neptune -103222-02-06 15:06 J -35980376.08 -35980375.87 -35980375.62 0.0089 0.0040
 Neptune -103221-02-09 03:35 J -35980008.62 -35980008.35 -35980008.07 0.0089 0.0003
 Saturn -103220-01-30 16:18 J -35979652.09 -35979651.82 -35979651.56 0.0277 0.0013
 Neptune -103220-02-11 01:11 J -35979640.69 -35979640.45 -35979640.20 0.0089 0.0028
 Neptune -103219-02-13 09:50 J -35979273.22 -35979273.09 -35979272.90 0.0089 0.0072
 Jupiter -103214-03-08 23:30 J -35977423.76 -35977423.52 -35977423.29 0.0495 0.0052
 Jupiter -103209-09-02 19:26 J -35975418.71 -35975418.69 -35975418.65 0.0534 0.0528
 Saturn -103205-08-06 20:38 J -35973984.89 -35973984.64 -35973984.40 0.0283 0.0009

Jupiter -103202-03-13 17:59 J -35973035.94 -35973035.75 -35973035.55 0.0497 0.0326
 Jupiter -103197-09-07 04:47 J -35971031.53 -35971031.30 -35971031.08 0.0532 0.0118
 Uranus -103194-09-21 10:47 J -35969922.20 -35969922.05 -35969921.86 0.0136 0.0092
 Uranus -103193-09-24 12:28 J -35969553.23 -35969552.98 -35969552.73 0.0137 0.0023
 Uranus -103192-09-28 19:40 J -35969183.90 -35969183.68 -35969183.46 0.0137 0.0050
 Saturn -103191-01-25 01:40 J -35969065.57 -35969065.43 -35969065.25 0.0278 0.0210
 Uranus -103191-10-02 22:18 J -35968814.63 -35968814.57 -35968814.47 0.0138 0.0131
 Jupiter -103185-09-11 19:40 J -35966643.85 -35966643.68 -35966643.51 0.0531 0.0330
 Saturn -103176-08-02 06:57 J -35963397.37 -35963397.21 -35963397.02 0.0281 0.0188
 Saturn -103161-02-02 00:28 J -35958100.72 -35958100.48 -35958100.23 0.0277 0.0074
 Mars -103157-01-17 01:40 J -35956655.45 -35956655.43 -35956655.40 0.1746 0.1729
 Uranus -103154-03-26 22:18 J -35955490.81 -35955490.57 -35955490.32 0.0142 0.0061
 Uranus -103153-03-30 22:04 J -35955120.83 -35955120.58 -35955120.32 0.0142 0.0016
 Uranus -103152-04-05 09:35 J -35954750.25 -35954750.10 -35954749.93 0.0141 0.0111
 Saturn -103146-08-09 06:28 J -35952433.45 -35952433.23 -35952433.00 0.0283 0.0070
 Neptune -103141-08-10 15:06 J -35950605.02 -35950604.87 -35950604.67 0.0088 0.0060
 Neptune -103140-08-13 01:40 J -35950237.65 -35950237.43 -35950237.18 0.0088 0.0037
 Neptune -103139-08-15 09:35 J -35949870.34 -35949870.10 -35949869.86 0.0088 0.0003
 Neptune -103138-08-17 14:23 J -35949503.13 -35949502.90 -35949502.64 0.0088 0.0025
 Neptune -103137-08-19 02:09 J -35949135.55 -35949135.41 -35949135.23 0.0088 0.0065
 Neptune -103136-08-21 03:21 J -35948768.39 -35948768.36 -35948768.30 0.0088 0.0087
 Saturn -103132-01-26 16:33 J -35947514.02 -35947513.81 -35947513.59 0.0278 0.0145
 Jupiter -103131-03-08 00:13 J -35947108.73 -35947108.49 -35947108.24 0.0495 0.0111
 Jupiter -103119-03-12 17:01 J -35942720.99 -35942720.79 -35942720.58 0.0496 0.0254
 Saturn -103117-08-03 19:25 J -35941845.90 -35941845.69 -35941845.47 0.0282 0.0123
 Jupiter -103114-09-07 06:42 J -35940716.41 -35940716.22 -35940716.02 0.0533 0.0220
 Uranus -103110-09-21 22:33 J -35939240.71 -35939240.56 -35939240.37 0.0136 0.0096
 Uranus -103109-09-24 22:33 J -35938871.80 -35938871.56 -35938871.31 0.0137 0.0018
 Uranus -103108-09-29 06:28 J -35938502.43 -35938502.23 -35938502.00 0.0137 0.0057
 Uranus -103107-10-03 07:54 J -35938133.25 -35938133.17 -35938133.04 0.0138 0.0125

Saturn -103102-02-03 16:18 J -35936549.02 -35936548.82 -35936548.60 0.0277 0.0139
 Jupiter -103102-09-12 00:57 J -35936328.66 -35936328.46 -35936328.25 0.0531 0.0262
 Pluto -103095-03-12 12:42 J -35933955.20 -35933954.97 -35933954.70 0.0066 0.0019
 Pluto -103094-03-13 23:45 J -35933588.60 -35933588.51 -35933588.36 0.0066 0.0060
 Saturn -103087-08-10 21:49 J -35930881.79 -35930881.59 -35930881.38 0.0283 0.0132
 Saturn -103073-01-29 03:21 J -35925962.61 -35925962.36 -35925962.11 0.0278 0.0079
 Uranus -103070-03-27 04:33 J -35924809.53 -35924809.31 -35924809.07 0.0142 0.0074
 Uranus -103069-03-31 05:30 J -35924439.52 -35924439.27 -35924439.02 0.0142 0.0029
 Uranus -103068-04-05 15:49 J -35924069.00 -35924068.84 -35924068.66 0.0141 0.0108
 Neptune -103059-02-03 04:47 J -35920843.33 -35920843.30 -35920843.20 0.0089 0.0086
 Neptune -103058-02-05 15:49 J -35920476.04 -35920475.84 -35920475.60 0.0089 0.0052
 Saturn -103058-08-06 03:35 J -35920294.59 -35920294.35 -35920294.10 0.0282 0.0061
 Neptune -103057-02-08 14:52 J -35920108.13 -35920107.88 -35920107.61 0.0089 0.0017
 Mars -103057-07-21 02:37 J -35919944.57 -35919944.39 -35919944.21 0.1786 0.0691
 Neptune -103056-02-09 23:45 J -35919740.76 -35919740.51 -35919740.24 0.0089 0.0018
 Neptune -103055-02-12 23:16 J -35919372.75 -35919372.53 -35919372.30 0.0089 0.0051
 Neptune -103054-02-15 08:23 J -35919005.18 -35919005.15 -35919005.07 0.0089 0.0087
 Jupiter -103048-03-06 20:09 J -35916793.87 -35916793.66 -35916793.44 0.0494 0.0200
 Saturn -103043-02-05 11:59 J -35914997.15 -35914997.00 -35914996.82 0.0276 0.0207
 Jupiter -103036-03-11 19:25 J -35912405.92 -35912405.69 -35912405.45 0.0496 0.0165
 Mars -103031-01-10 23:59 J -35910639.67 -35910639.50 -35910639.34 0.1731 0.1077
 Jupiter -103031-09-06 10:47 J -35910401.24 -35910401.05 -35910400.85 0.0533 0.0298
 Saturn -103029-07-30 21:06 J -35909707.66 -35909707.62 -35909707.55 0.0281 0.0272
 Saturn -103028-08-12 11:59 J -35909330.16 -35909330.00 -35909329.82 0.0283 0.0195
 Uranus -103026-09-22 09:21 J -35908559.28 -35908559.11 -35908558.90 0.0136 0.0085
 Uranus -103025-09-25 08:37 J -35908190.38 -35908190.14 -35908189.89 0.0137 0.0017
 Uranus -103024-09-29 17:45 J -35907820.96 -35907820.76 -35907820.53 0.0137 0.0057
 Uranus -103023-10-03 18:42 J -35907451.76 -35907451.72 -35907451.67 0.0138 0.0135
 Jupiter -103019-09-10 23:16 J -35906013.73 -35906013.53 -35906013.32 0.0531 0.0175
 Saturn -103014-01-30 13:11 J -35904411.20 -35904410.95 -35904410.69 0.0277 0.0012

Pluto -103009-09-11 06:57 J -35902360.40 -35902360.21 -35902359.99 0.0079 0.0043

103RD MILLENNIUM BCE

This is a list of transits of Moon in the 103rd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-102999-08-07	10:47 J	-35898743.29	-35898743.05	-35898742.81	0.0282	0.0004	
Uranus	-102986-03-27	10:18 J	-35894128.31	-35894128.07	-35894127.81	0.0142	0.0058	
Saturn	-102985-01-25	10:18 J	-35893824.22	-35893824.07	-35893823.90	0.0279	0.0215	
Uranus	-102985-03-31	12:42 J	-35893758.22	-35893757.97	-35893757.71	0.0142	0.0018	
Saturn	-102984-02-07	04:33 J	-35893445.35	-35893445.31	-35893445.27	0.0276	0.0272	
Uranus	-102984-04-05	22:04 J	-35893387.72	-35893387.58	-35893387.40	0.0141	0.0114	
Mars	-102978-07-25	01:40 J	-35891086.61	-35891086.43	-35891086.25	0.1781	0.0765	
Neptune	-102977-08-10	06:57 J	-35890704.29	-35890704.21	-35890704.07	0.0088	0.0079	
Neptune	-102976-08-12	15:06 J	-35890337.06	-35890336.87	-35890336.64	0.0088	0.0046	
Neptune	-102975-08-14	19:40 J	-35889969.92	-35889969.68	-35889969.42	0.0088	0.0017	
Neptune	-102974-08-17	08:37 J	-35889602.38	-35889602.14	-35889601.89	0.0088	0.0017	
Neptune	-102973-08-18	09:35 J	-35889235.31	-35889235.10	-35889234.88	0.0088	0.0045	
Neptune	-102972-08-20	23:30 J	-35888867.61	-35888867.52	-35888867.38	0.0088	0.0079	
Saturn	-102970-08-02	11:16 J	-35888156.18	-35888156.03	-35888155.87	0.0281	0.0209	
Saturn	-102969-08-13	21:21 J	-35887778.71	-35887778.61	-35887778.50	0.0284	0.0255	
Jupiter	-102965-03-06	01:40 J	-35886478.64	-35886478.43	-35886478.22	0.0494	0.0267	

Saturn -102955-02-01 03:21 J -35882859.60 -35882859.36 -35882859.12 0.0277 0.0053
 Jupiter -102953-03-10 15:21 J -35882091.09 -35882090.86 -35882090.62 0.0496 0.0099
 Mars -102952-01-14 03:06 J -35881781.58 -35881781.37 -35881781.17 0.1735 0.0305
 Jupiter -102948-09-05 05:30 J -35880086.40 -35880086.27 -35880086.13 0.0533 0.0410
 Uranus -102942-09-22 21:06 J -35877877.80 -35877877.62 -35877877.44 0.0136 0.0089
 Jupiter -102941-03-15 17:59 J -35877702.79 -35877702.75 -35877702.71 0.0497 0.0489
 Uranus -102941-09-25 18:42 J -35877508.96 -35877508.72 -35877508.47 0.0137 0.0011
 Saturn -102940-08-08 20:23 J -35877191.88 -35877191.65 -35877191.43 0.0283 0.0060
 Uranus -102940-09-30 04:47 J -35877139.51 -35877139.30 -35877139.09 0.0137 0.0062
 Uranus -102939-10-04 04:33 J -35876770.39 -35876770.31 -35876770.22 0.0138 0.0129
 Jupiter -102936-09-10 02:37 J -35875698.62 -35875698.39 -35875698.17 0.0532 0.0079
 Saturn -102926-01-26 23:59 J -35872272.71 -35872272.50 -35872272.27 0.0279 0.0149
 Saturn -102911-08-03 18:13 J -35866604.93 -35866604.74 -35866604.52 0.0281 0.0152
 Uranus -102902-03-27 17:30 J -35863446.99 -35863446.77 -35863446.52 0.0142 0.0071
 Uranus -102901-03-31 20:52 J -35863076.88 -35863076.63 -35863076.38 0.0142 0.0032
 Uranus -102900-04-06 04:33 J -35862706.46 -35862706.31 -35862706.12 0.0141 0.0109
 Saturn -102896-02-02 19:40 J -35861307.90 -35861307.68 -35861307.45 0.0277 0.0115
 Neptune -102894-02-05 05:16 J -35860575.45 -35860575.28 -35860575.07 0.0089 0.0063
 Neptune -102893-02-07 14:37 J -35860208.13 -35860207.89 -35860207.65 0.0089 0.0037
 Neptune -102892-02-09 13:11 J -35859840.22 -35859839.95 -35859839.67 0.0089 0.0006
 Neptune -102891-02-11 23:30 J -35859472.75 -35859472.52 -35859472.27 0.0089 0.0032
 Neptune -102890-02-14 19:25 J -35859104.84 -35859104.69 -35859104.54 0.0089 0.0074
 Jupiter -102882-03-05 22:18 J -35856163.74 -35856163.57 -35856163.40 0.0494 0.0333
 Saturn -102881-08-10 07:11 J -35855640.41 -35855640.20 -35855639.98 0.0283 0.0113
 Jupiter -102870-03-10 20:23 J -35851775.89 -35851775.65 -35851775.40 0.0495 0.0015
 Saturn -102867-01-28 07:11 J -35850721.44 -35850721.20 -35850720.94 0.0278 0.0089
 Jupiter -102865-09-04 15:35 J -35849770.94 -35849770.85 -35849770.75 0.0534 0.0482
 Jupiter -102858-03-15 08:23 J -35847388.29 -35847388.15 -35847388.00 0.0496 0.0406
 Uranus -102858-09-23 07:25 J -35847196.38 -35847196.19 -35847195.98 0.0136 0.0078
 Uranus -102857-09-26 05:01 J -35846827.53 -35846827.29 -35846827.04 0.0137 0.0012

Uranus -102856-09-30 15:35 J -35846458.05 -35846457.85 -35846457.62 0.0137 0.0062
 Jupiter -102853-09-09 03:35 J -35845383.57 -35845383.35 -35845383.13 0.0533 0.0018
 Saturn -102852-08-04 19:54 J -35845053.90 -35845053.67 -35845053.44 0.0281 0.0101
 Pluto -102849-03-13 15:21 J -35844102.10 -35844101.86 -35844101.58 0.0066 0.0021
 Pluto -102848-03-15 04:47 J -35843735.39 -35843735.30 -35843735.15 0.0066 0.0059
 Jupiter -102841-09-14 02:23 J -35840995.46 -35840995.40 -35840995.32 0.0531 0.0500
 Saturn -102837-02-05 07:40 J -35839756.38 -35839756.18 -35839755.99 0.0277 0.0172
 Saturn -102822-08-12 12:13 J -35834089.18 -35834088.99 -35834088.79 0.0283 0.0161
 Uranus -102818-03-28 01:25 J -35832765.68 -35832765.44 -35832765.18 0.0142 0.0053
 Uranus -102817-04-01 06:28 J -35832395.48 -35832395.23 -35832394.98 0.0142 0.0021
 Uranus -102816-04-06 12:57 J -35832025.10 -35832024.96 -35832024.79 0.0141 0.0117
 Neptune -102812-08-12 02:37 J -35830436.56 -35830436.39 -35830436.17 0.0088 0.0057
 Neptune -102811-08-14 16:04 J -35830069.05 -35830068.83 -35830068.59 0.0088 0.0034
 Neptune -102810-08-16 17:01 J -35829702.03 -35829701.79 -35829701.54 0.0088 0.0007
 Neptune -102809-08-18 07:11 J -35829334.44 -35829334.20 -35829333.96 0.0088 0.0029
 Saturn -102808-01-29 13:40 J -35829170.17 -35829169.93 -35829169.67 0.0278 0.0032
 Neptune -102808-08-20 08:09 J -35828967.29 -35828967.16 -35828966.99 0.0088 0.0069
 Jupiter -102799-03-05 06:28 J -35825848.37 -35825848.23 -35825848.09 0.0493 0.0405
 Saturn -102793-08-05 23:30 J -35823502.75 -35823502.52 -35823502.29 0.0281 0.0054
 Jupiter -102787-03-09 17:16 J -35821461.02 -35821460.78 -35821460.53 0.0495 0.0049
 Saturn -102779-01-23 18:13 J -35818583.81 -35818583.74 -35818583.64 0.0280 0.0264
 Saturn -102778-02-06 11:16 J -35818205.18 -35818205.03 -35818204.87 0.0277 0.0222
 Jupiter -102775-03-14 20:23 J -35817072.81 -35817072.65 -35817072.49 0.0496 0.0365
 Uranus -102774-09-23 17:30 J -35816514.95 -35816514.77 -35816514.57 0.0136 0.0084
 Mars -102773-07-21 19:54 J -35816212.84 -35816212.67 -35816212.50 0.1793 0.0426
 Uranus -102773-09-26 14:37 J -35816146.13 -35816145.89 -35816145.64 0.0137 0.0005
 Uranus -102772-10-01 01:40 J -35815776.64 -35815776.43 -35815776.21 0.0137 0.0066
 Uranus -102771-10-05 00:28 J -35815407.53 -35815407.48 -35815407.41 0.0138 0.0133
 Jupiter -102770-09-09 13:54 J -35815068.14 -35815067.92 -35815067.70 0.0533 0.0058
 Saturn -102764-08-01 02:37 J -35812915.48 -35812915.39 -35812915.27 0.0280 0.0252

Saturn -102763-08-13 09:21 J -35812538.27 -35812538.11 -35812537.92 0.0283 0.0202
 Pluto -102763-09-13 08:09 J -35812507.36 -35812507.16 -35812506.93 0.0079 0.0044
 Jupiter -102758-09-13 23:01 J -35810680.67 -35810680.54 -35810680.39 0.0531 0.0413
 Saturn -102749-01-31 21:35 J -35807618.84 -35807618.60 -35807618.36 0.0278 0.0018
 Mars -102747-01-11 09:49 J -35806908.25 -35806908.09 -35806907.93 0.1724 0.0811
 Uranus -102735-03-23 05:16 J -35802454.29 -35802454.28 -35802454.24 0.0143 0.0142
 Uranus -102734-03-28 09:21 J -35802084.34 -35802084.11 -35802083.85 0.0142 0.0064
 Saturn -102734-08-08 05:16 J -35801951.51 -35801951.28 -35801951.05 0.0281 0.0011
 Uranus -102733-04-01 15:21 J -35801714.10 -35801713.86 -35801713.61 0.0142 0.0038
 Uranus -102732-04-06 20:37 J -35801343.81 -35801343.64 -35801343.47 0.0141 0.0111
 Neptune -102730-02-04 05:16 J -35800675.35 -35800675.28 -35800675.15 0.0089 0.0082
 Neptune -102729-02-07 03:21 J -35800307.57 -35800307.36 -35800307.11 0.0089 0.0048
 Neptune -102728-02-08 15:21 J -35799940.10 -35799939.86 -35799939.59 0.0089 0.0014
 Neptune -102727-02-11 09:21 J -35799572.37 -35799572.11 -35799571.83 0.0089 0.0021
 Neptune -102726-02-14 01:40 J -35799204.62 -35799204.43 -35799204.21 0.0089 0.0054
 Saturn -102720-01-24 18:57 J -35797032.87 -35797032.71 -35797032.53 0.0280 0.0212
 Saturn -102719-02-07 11:01 J -35796654.09 -35796654.04 -35796653.98 0.0277 0.0270
 Jupiter -102716-03-04 05:30 J -35795533.35 -35795533.27 -35795533.17 0.0493 0.0457
 Saturn -102705-08-01 22:47 J -35791364.70 -35791364.55 -35791364.37 0.0280 0.0212
 Jupiter -102704-03-09 07:11 J -35791145.43 -35791145.20 -35791144.96 0.0494 0.0100
 Saturn -102704-08-14 06:28 J -35790987.34 -35790987.23 -35790987.09 0.0283 0.0240
 Mars -102694-07-25 05:01 J -35787355.44 -35787355.29 -35787355.13 0.1789 0.0977
 Jupiter -102692-03-13 19:54 J -35786757.86 -35786757.67 -35786757.46 0.0495 0.0303
 Saturn -102690-02-02 04:04 J -35786067.57 -35786067.33 -35786067.09 0.0278 0.0066
 Uranus -102690-09-24 02:52 J -35785833.58 -35785833.38 -35785833.16 0.0136 0.0072
 Uranus -102689-09-26 23:45 J -35785464.75 -35785464.51 -35785464.26 0.0137 0.0009
 Uranus -102688-10-01 11:01 J -35785095.24 -35785095.04 -35785094.81 0.0137 0.0066
 Jupiter -102687-09-08 14:52 J -35784753.10 -35784752.88 -35784752.66 0.0534 0.0117
 Saturn -102675-08-09 08:23 J -35780400.39 -35780400.15 -35780399.91 0.0281 0.0031
 Jupiter -102675-09-13 13:54 J -35780365.08 -35780364.92 -35780364.76 0.0532 0.0362

Mars -102668-01-13 23:01 J -35778050.74 -35778050.54 -35778050.34 0.1728 0.0305
 Saturn -102661-01-26 16:04 J -35775482.04 -35775481.83 -35775481.63 0.0280 0.0166
 Uranus -102650-03-28 15:49 J -35771403.09 -35771402.84 -35771402.57 0.0142 0.0047
 Uranus -102649-04-01 23:59 J -35771032.75 -35771032.50 -35771032.25 0.0142 0.0026
 Uranus -102648-04-07 03:35 J -35770662.48 -35770662.35 -35770662.20 0.0141 0.0121
 Neptune -102648-08-11 23:16 J -35770535.65 -35770535.53 -35770535.38 0.0088 0.0075
 Neptune -102647-08-14 00:13 J -35770168.70 -35770168.49 -35770168.26 0.0088 0.0041
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 Neptune -102646-08-16 14:23 J -35769801.14 -35769800.90 -35769800.64 0.0088 0.0014
 Saturn -102645-08-15 08:09 J -35769436.19 -35769436.16 -35769436.11 0.0283 0.0279
 Neptune -102645-08-17 17:01 J -35769434.03 -35769433.79 -35769433.56 0.0088 0.0021
 Neptune -102644-08-20 03:35 J -35769066.56 -35769066.35 -35769066.13 0.0088 0.0049
 Neptune -102643-08-22 09:49 J -35768699.16 -35768699.09 -35768699.00 0.0088 0.0083
 Saturn -102631-02-03 03:35 J -35764516.58 -35764516.35 -35764516.10 0.0278 0.0108
 Jupiter -102621-03-08 08:37 J -35760830.38 -35760830.14 -35760829.90 0.0494 0.0156
 Saturn -102616-08-10 05:30 J -35758849.51 -35758849.27 -35758849.03 0.0281 0.0070
 Jupiter -102609-03-13 03:35 J -35756442.54 -35756442.35 -35756442.15 0.0495 0.0267
 Uranus -102606-09-24 11:59 J -35755152.20 -35755152.00 -35755151.80 0.0136 0.0079
 Uranus -102605-09-27 08:52 J -35754783.38 -35754783.13 -35754782.89 0.0137 0.0002
 Jupiter -102604-09-08 06:57 J -35754437.42 -35754437.21 -35754437.01 0.0534 0.0152
 Uranus -102604-10-01 19:40 J -35754413.88 -35754413.68 -35754413.45 0.0137 0.0069
 Pluto -102603-03-15 11:30 J -35754249.26 -35754249.02 -35754248.75 0.0066 0.0025
 Uranus -102603-10-05 18:57 J -35754044.74 -35754044.71 -35754044.68 0.0138 0.0136
 Saturn -102602-01-27 17:45 J -35753930.98 -35753930.76 -35753930.54 0.0280 0.0125
 Pluto -102602-03-17 11:16 J -35753882.14 -35753882.03 -35753881.86 0.0066 0.0057
 Jupiter -102592-09-12 21:21 J -35750049.80 -35750049.61 -35750049.41 0.0532 0.0292
 Saturn -102587-08-04 20:52 J -35748262.82 -35748262.63 -35748262.42 0.0280 0.0134
 Saturn -102572-02-03 21:06 J -35742965.83 -35742965.62 -35742965.39 0.0278 0.0145
 Mars -102568-07-19 18:13 J -35741338.79 -35741338.74 -35741338.68 0.1804 0.1721
 Uranus -102567-03-23 18:57 J -35741091.75 -35741091.71 -35741091.62 0.0143 0.0138

Uranus -102566-03-28 20:23 J -35740721.89 -35740721.65 -35740721.39 0.0142 0.0059
 Neptune -102565-02-06 07:11 J -35740407.36 -35740407.20 -35740406.98 0.0089 0.0059
 Uranus -102565-04-02 05:59 J -35740351.49 -35740351.25 -35740351.00 0.0142 0.0041
 Neptune -102564-02-07 23:45 J -35740039.76 -35740039.51 -35740039.25 0.0089 0.0033
 Uranus -102564-04-07 07:40 J -35739981.32 -35739981.18 -35739981.00 0.0141 0.0113
 Neptune -102563-02-10 18:13 J -35739671.99 -35739671.74 -35739671.47 0.0089 0.0010
 Neptune -102562-02-13 06:13 J -35739304.48 -35739304.24 -35739303.97 0.0089 0.0035
 Neptune -102561-02-16 03:49 J -35738936.43 -35738936.34 -35738936.19 0.0089 0.0079
 Saturn -102557-08-11 01:40 J -35737298.65 -35737298.43 -35737298.20 0.0281 0.0108
 Saturn -102543-01-28 21:49 J -35732379.82 -35732379.59 -35732379.35 0.0280 0.0084
 Jupiter -102538-03-08 17:45 J -35730514.97 -35730514.76 -35730514.54 0.0494 0.0199
 Saturn -102528-08-06 00:28 J -35726711.69 -35726711.48 -35726711.25 0.0280 0.0095
 Jupiter -102526-03-13 17:01 J -35726127.01 -35726126.79 -35726126.57 0.0495 0.0234
 Uranus -102522-09-24 20:23 J -35724470.85 -35724470.65 -35724470.42 0.0136 0.0067
 Jupiter -102521-09-07 11:59 J -35724122.21 -35724122.00 -35724121.78 0.0534 0.0215
 Uranus -102521-09-27 17:59 J -35724101.99 -35724101.75 -35724101.50 0.0137 0.0006
 Uranus -102520-10-02 05:01 J -35723732.50 -35723732.29 -35723732.07 0.0137 0.0069
 Pluto -102517-09-14 10:04 J -35722654.27 -35722654.08 -35722653.87 0.0079 0.0045
 Saturn -102513-02-05 18:57 J -35721414.90 -35721414.71 -35721414.52 0.0278 0.0182
 Jupiter -102509-09-12 01:25 J -35719734.64 -35719734.44 -35719734.25 0.0533 0.0224
 Saturn -102498-08-13 04:04 J -35715747.52 -35715747.33 -35715747.13 0.0281 0.0151
 Mars -102489-07-22 17:30 J -35712480.97 -35712480.77 -35712480.58 0.1799 0.0233
 Saturn -102484-01-29 21:21 J -35710828.86 -35710828.61 -35710828.35 0.0280 0.0044
 Uranus -102483-03-24 00:57 J -35710410.47 -35710410.46 -35710410.42 0.0143 0.0142
 Neptune -102483-08-13 21:49 J -35710267.78 -35710267.59 -35710267.37 0.0088 0.0052
 Uranus -102482-03-29 01:25 J -35710040.69 -35710040.44 -35710040.17 0.0142 0.0046
 Neptune -102482-08-16 00:28 J -35709900.70 -35709900.48 -35709900.24 0.0088 0.0029
 Uranus -102481-04-02 12:42 J -35709670.22 -35709669.97 -35709669.71 0.0142 0.0027
 Neptune -102481-08-17 10:33 J -35709533.30 -35709533.06 -35709532.79 0.0088 0.0012
 Uranus -102480-04-07 12:57 J -35709300.07 -35709299.96 -35709299.81 0.0141 0.0124

Neptune -102480-08-19 18:28 J -35709165.96 -35709165.73 -35709165.51 0.0088 0.0034
 Neptune -102479-08-21 23:01 J -35708798.67 -35708798.54 -35708798.38 0.0088 0.0073
 Saturn -102469-08-07 01:11 J -35705160.68 -35705160.45 -35705160.20 0.0280 0.0053
 Mars -102463-01-12 08:37 J -35703176.33 -35703176.14 -35703175.95 0.1719 0.0410
 Saturn -102455-01-23 21:21 J -35700242.69 -35700242.61 -35700242.52 0.0281 0.0262
 Jupiter -102455-03-08 04:33 J -35700199.53 -35700199.31 -35700199.09 0.0493 0.0239
 Saturn -102454-02-06 22:47 J -35699863.69 -35699863.55 -35699863.39 0.0278 0.0219
 Jupiter -102443-03-12 16:47 J -35695812.02 -35695811.80 -35695811.57 0.0494 0.0187
 Saturn -102440-08-01 22:47 J -35694573.64 -35694573.55 -35694573.43 0.0278 0.0247
 Saturn -102439-08-14 10:47 J -35694196.20 -35694196.05 -35694195.87 0.0281 0.0194
 Uranus -102439-09-20 20:23 J -35694158.69 -35694158.65 -35694158.57 0.0136 0.0132
 Jupiter -102438-09-07 16:18 J -35693807.01 -35693806.82 -35693806.64 0.0535 0.0278
 Uranus -102438-09-25 05:01 J -35693789.48 -35693789.29 -35693789.07 0.0136 0.0075
 Uranus -102437-09-28 03:21 J -35693420.60 -35693420.36 -35693420.12 0.0137 0.0003
 Uranus -102436-10-02 13:40 J -35693051.15 -35693050.93 -35693050.72 0.0137 0.0070
 Jupiter -102426-09-12 17:01 J -35689419.01 -35689418.79 -35689418.57 0.0534 0.0169
 Saturn -102425-01-31 17:59 J -35689278.01 -35689277.75 -35689277.49 0.0280 0.0004
 Mars -102410-07-26 04:47 J -35683623.41 -35683623.30 -35683623.18 0.1795 0.1343
 Saturn -102410-08-08 23:45 J -35683609.75 -35683609.51 -35683609.26 0.0280 0.0012
 Neptune -102401-02-05 14:52 J -35680507.00 -35680506.88 -35680506.72 0.0089 0.0077
 Neptune -102400-02-07 10:18 J -35680139.28 -35680139.07 -35680138.83 0.0089 0.0044
 Neptune -102399-02-09 20:52 J -35679771.90 -35679771.63 -35679771.36 0.0089 0.0008
 Uranus -102399-03-24 06:42 J -35679729.27 -35679729.22 -35679729.12 0.0143 0.0137
 Neptune -102398-02-12 19:40 J -35679403.93 -35679403.68 -35679403.42 0.0089 0.0025
 Uranus -102398-03-29 06:28 J -35679359.46 -35679359.23 -35679358.97 0.0142 0.0057
 Neptune -102397-02-15 03:49 J -35679036.51 -35679036.34 -35679036.11 0.0089 0.0059
 Uranus -102397-04-02 18:57 J -35678988.96 -35678988.71 -35678988.46 0.0142 0.0042
 Saturn -102396-01-25 03:06 J -35678691.51 -35678691.37 -35678691.21 0.0281 0.0220
 Uranus -102396-04-07 18:13 J -35678618.90 -35678618.74 -35678618.57 0.0141 0.0113
 Saturn -102395-02-08 02:52 J -35678312.47 -35678312.38 -35678312.28 0.0278 0.0258

Mars -102384-01-14 16:47 J -35674318.97 -35674318.80 -35674318.62 0.1722 0.0536
 Saturn -102381-08-03 08:37 J -35673022.30 -35673022.14 -35673021.98 0.0279 0.0200
 Saturn -102380-08-15 17:30 J -35672644.88 -35672644.77 -35672644.64 0.0281 0.0240
 Jupiter -102372-03-07 03:21 J -35669884.54 -35669884.36 -35669884.16 0.0492 0.0297
 Saturn -102366-02-01 20:37 J -35667726.89 -35667726.64 -35667726.40 0.0279 0.0042
 Jupiter -102360-03-12 05:30 J -35665496.50 -35665496.27 -35665496.04 0.0494 0.0141
 Pluto -102357-03-16 16:04 J -35664396.04 -35664395.83 -35664395.58 0.0066 0.0031
 Pluto -102356-03-18 07:11 J -35664029.33 -35664029.20 -35664029.00 0.0066 0.0054
 Jupiter -102355-09-07 04:18 J -35663491.49 -35663491.32 -35663491.14 0.0535 0.0338
 Uranus -102354-09-25 14:23 J -35663108.12 -35663107.90 -35663107.67 0.0136 0.0062
 Uranus -102353-09-28 13:25 J -35662739.18 -35662738.94 -35662738.70 0.0137 0.0003
 Uranus -102352-10-02 22:18 J -35662369.76 -35662369.57 -35662369.34 0.0137 0.0073
 Saturn -102351-08-10 04:04 J -35662058.56 -35662058.33 -35662058.09 0.0280 0.0035
 Jupiter -102343-09-11 14:23 J -35659104.12 -35659103.90 -35659103.69 0.0534 0.0087
 Saturn -102337-01-27 08:37 J -35657140.33 -35657140.14 -35657139.92 0.0280 0.0171
 Jupiter -102331-09-16 10:04 J -35654716.16 -35654716.08 -35654715.99 0.0533 0.0492
 Saturn -102322-08-05 16:33 J -35651471.01 -35651470.81 -35651470.60 0.0279 0.0149
 Neptune -102319-08-13 08:23 J -35650367.26 -35650367.15 -35650366.97 0.0088 0.0071
 Neptune -102318-08-15 18:42 J -35649999.95 -35649999.72 -35649999.47 0.0088 0.0036
 Neptune -102317-08-17 02:37 J -35649632.62 -35649632.39 -35649632.14 0.0088 0.0009
 Neptune -102316-08-19 06:42 J -35649265.45 -35649265.22 -35649264.96 0.0088 0.0026
 Uranus -102315-03-24 14:09 J -35649047.95 -35649047.91 -35649047.82 0.0143 0.0138
 Neptune -102315-08-21 19:11 J -35648897.87 -35648897.70 -35648897.49 0.0088 0.0055
 Uranus -102314-03-29 13:54 J -35648678.16 -35648677.92 -35648677.66 0.0142 0.0045
 Neptune -102314-08-23 20:37 J -35648530.66 -35648530.64 -35648530.61 0.0088 0.0088
 Uranus -102313-04-03 02:52 J -35648307.63 -35648307.38 -35648307.11 0.0142 0.0029
 Uranus -102312-04-08 00:57 J -35647937.56 -35647937.46 -35647937.33 0.0141 0.0127
 Saturn -102307-02-03 07:11 J -35646175.43 -35646175.20 -35646174.97 0.0279 0.0092
 Saturn -102292-08-11 15:49 J -35640507.05 -35640506.84 -35640506.62 0.0281 0.0088
 Jupiter -102289-03-06 16:18 J -35639568.99 -35639568.82 -35639568.64 0.0492 0.0343

Mars -102284-07-19 19:54 J -35637607.75 -35637607.67 -35637607.59 0.1811 0.1613
 Saturn -102278-01-28 12:42 J -35635589.20 -35635588.97 -35635588.73 0.0280 0.0120
 Jupiter -102277-03-11 02:52 J -35635181.62 -35635181.38 -35635181.14 0.0493 0.0091
 Jupiter -102272-09-05 19:54 J -35633176.79 -35633176.67 -35633176.55 0.0536 0.0440
 Pluto -102271-09-16 16:18 J -35632800.97 -35632800.82 -35632800.63 0.0079 0.0055
 Uranus -102271-09-21 16:18 J -35632795.90 -35632795.82 -35632795.73 0.0136 0.0127
 Pluto -102270-09-18 11:16 J -35632434.04 -35632434.03 -35632433.97 0.0078 0.0078
 Uranus -102270-09-25 22:47 J -35632426.76 -35632426.55 -35632426.33 0.0136 0.0072
 Uranus -102269-09-28 22:47 J -35632057.78 -35632057.55 -35632057.31 0.0137 0.0007
 Uranus -102268-10-03 06:57 J -35631688.42 -35631688.21 -35631687.99 0.0137 0.0072
 Jupiter -102265-03-16 02:23 J -35630793.41 -35630793.40 -35630793.38 0.0495 0.0493
 Saturn -102263-08-06 21:21 J -35629919.83 -35629919.61 -35629919.37 0.0279 0.0096
 Jupiter -102260-09-10 21:21 J -35628788.83 -35628788.61 -35628788.39 0.0535 0.0009
 Saturn -102248-02-04 20:37 J -35624623.84 -35624623.64 -35624623.42 0.0279 0.0148
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 Neptune -102236-02-06 13:40 J -35620239.14 -35620238.93 -35620238.71 0.0089 0.0053
 Neptune -102235-02-09 12:28 J -35619871.22 -35619870.98 -35619870.72 0.0089 0.0029
 Neptune -102234-02-11 20:52 J -35619503.88 -35619503.63 -35619503.36 0.0089 0.0015
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 Neptune -102232-02-16 06:13 J -35618768.32 -35618768.24 -35618768.15 0.0089 0.0083
 Uranus -102231-03-24 22:33 J -35618366.64 -35618366.56 -35618366.44 0.0143 0.0132
 Uranus -102230-03-29 22:04 J -35617996.81 -35617996.58 -35617996.32 0.0142 0.0053
 Uranus -102229-04-03 11:45 J -35617626.26 -35617626.01 -35617625.76 0.0142 0.0046
 Uranus -102228-04-08 09:21 J -35617256.26 -35617256.11 -35617255.96 0.0141 0.0116
 Saturn -102219-01-29 20:09 J -35614037.91 -35614037.66 -35614037.41 0.0280 0.0062
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 Mars -102205-07-22 14:37 J -35608750.09 -35608749.89 -35608749.69 0.1807 0.0295
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Saturn -102190-01-24 12:57 J -35603451.04 -35603450.96 -35603450.86 0.0281 0.0260
 Saturn -102189-02-07 08:37 J -35603072.30 -35603072.14 -35603071.96 0.0279 0.0208
 Jupiter -102189-09-05 07:40 J -35602861.23 -35602861.18 -35602861.11 0.0537 0.0515
 Uranus -102186-09-26 07:11 J -35601745.42 -35601745.20 -35601744.96 0.0136 0.0058
 Uranus -102185-09-29 08:23 J -35601376.38 -35601376.15 -35601375.91 0.0137 0.0003
 Uranus -102184-10-03 15:06 J -35601007.08 -35601006.87 -35601006.66 0.0137 0.0076
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 Mars -102179-01-12 08:37 J -35599445.35 -35599445.14 -35599444.93 0.1712 0.0191
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 Saturn -102175-08-03 05:59 J -35597781.37 -35597781.25 -35597781.11 0.0279 0.0233
 Saturn -102174-08-15 12:28 J -35597404.14 -35597403.98 -35597403.80 0.0281 0.0199
 Jupiter -102165-09-14 15:49 J -35594086.00 -35594085.84 -35594085.67 0.0533 0.0339
 Saturn -102160-01-31 10:04 J -35592486.33 -35592486.08 -35592485.84 0.0279 0.0002
 Neptune -102155-08-13 00:13 J -35590466.51 -35590466.49 -35590466.40 0.0088 0.0087
 Neptune -102154-08-15 10:33 J -35590099.27 -35590099.06 -35590098.86 0.0088 0.0047
 Neptune -102153-08-16 14:37 J -35589732.13 -35589731.89 -35589731.64 0.0088 0.0024
 Neptune -102152-08-19 03:49 J -35589364.58 -35589364.34 -35589364.09 0.0088 0.0016
 Neptune -102151-08-21 04:33 J -35588997.52 -35588997.31 -35588997.07 0.0088 0.0039
 Neptune -102150-08-23 18:42 J -35588629.82 -35588629.72 -35588629.59 0.0088 0.0078
 Uranus -102147-03-25 06:57 J -35587685.30 -35587685.21 -35587685.09 0.0143 0.0130
 Uranus -102146-03-30 07:11 J -35587315.45 -35587315.20 -35587314.94 0.0142 0.0039
 Uranus -102145-04-03 20:23 J -35586944.90 -35586944.65 -35586944.39 0.0142 0.0034
 Saturn -102145-08-09 16:04 J -35586817.06 -35586816.83 -35586816.60 0.0280 0.0020
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 Saturn -102131-01-26 02:52 J -35581899.55 -35581899.38 -35581899.18 0.0281 0.0196
 Saturn -102130-02-08 19:25 J -35581520.75 -35581520.69 -35581520.61 0.0278 0.0268
 Mars -102126-07-26 16:47 J -35579891.91 -35579891.80 -35579891.70 0.1802 0.1517
 Jupiter -102123-03-05 17:16 J -35578938.85 -35578938.78 -35578938.71 0.0491 0.0469
 Saturn -102116-08-04 15:35 J -35576230.03 -35576229.85 -35576229.65 0.0279 0.0175
 Saturn -102115-08-16 19:25 J -35575852.78 -35575852.69 -35575852.58 0.0282 0.0256

Jupiter -102111-03-10 05:30 J -35574551.52 -35574551.27 -35574551.01 0.0493 0.0043
 Pluto -102111-03-18 21:49 J -35574542.80 -35574542.59 -35574542.32 0.0066 0.0033
 Pluto -102110-03-20 08:52 J -35574176.27 -35574176.13 -35574175.95 0.0066 0.0053
 Uranus -102103-09-22 10:33 J -35571433.14 -35571433.06 -35571432.94 0.0136 0.0123
 Uranus -102102-09-26 14:23 J -35571064.11 -35571063.90 -35571063.67 0.0136 0.0069
 Saturn -102101-02-03 04:33 J -35570934.54 -35570934.31 -35570934.06 0.0279 0.0060
 Uranus -102101-09-29 17:16 J -35570695.01 -35570694.78 -35570694.54 0.0137 0.0011
 Mars -102100-01-15 08:09 J -35570587.34 -35570587.16 -35570586.97 0.1716 0.0784
 Uranus -102100-10-03 22:47 J -35570325.76 -35570325.55 -35570325.34 0.0137 0.0074
 Jupiter -102099-03-15 01:40 J -35570163.59 -35570163.43 -35570163.26 0.0494 0.0347
 Jupiter -102094-09-09 20:23 J -35568158.85 -35568158.65 -35568158.45 0.0535 0.0209
 Saturn -102086-08-12 06:13 J -35565265.46 -35565265.24 -35565265.01 0.0281 0.0077
 Jupiter -102082-09-14 11:16 J -35563771.23 -35563771.03 -35563770.82 0.0534 0.0232
 Saturn -102072-01-27 13:54 J -35560348.14 -35560347.92 -35560347.68 0.0280 0.0133
 Neptune -102072-02-06 04:47 J -35560338.45 -35560338.30 -35560338.13 0.0089 0.0071
 Neptune -102071-02-08 13:25 J -35559971.16 -35559970.94 -35559970.69 0.0089 0.0039
 Neptune -102070-02-11 11:01 J -35559603.31 -35559603.04 -35559602.76 0.0089 0.0004
 Neptune -102069-02-13 23:01 J -35559235.77 -35559235.54 -35559235.28 0.0089 0.0030
 Neptune -102068-02-15 16:47 J -35558867.98 -35558867.80 -35558867.59 0.0089 0.0063
 Uranus -102063-03-25 12:57 J -35557004.05 -35557003.96 -35557003.81 0.0143 0.0127
 Uranus -102062-03-30 14:09 J -35556634.14 -35556633.91 -35556633.65 0.0142 0.0047
 Uranus -102061-04-04 03:21 J -35556263.60 -35556263.36 -35556263.10 0.0142 0.0052
 Uranus -102060-04-09 00:42 J -35555893.60 -35555893.47 -35555893.32 0.0141 0.0120
 Saturn -102057-08-05 21:06 J -35554678.83 -35554678.62 -35554678.39 0.0279 0.0121
 Saturn -102042-02-04 20:52 J -35549382.86 -35549382.63 -35549382.40 0.0279 0.0122
 Jupiter -102028-03-09 09:21 J -35544236.34 -35544236.11 -35544235.88 0.0492 0.0102
 Saturn -102027-08-13 16:18 J -35543714.03 -35543713.82 -35543713.60 0.0281 0.0132
 Pluto -102025-09-17 22:47 J -35542947.71 -35542947.55 -35542947.33 0.0079 0.0052
 Uranus -102019-09-22 20:09 J -35540751.69 -35540751.66 -35540751.62 0.0136 0.0134
 Uranus -102018-09-26 22:18 J -35540382.80 -35540382.57 -35540382.33 0.0136 0.0054

Uranus -102017-09-30 02:09 J -35540013.64 -35540013.41 -35540013.17 0.0137 0.0003

Jupiter -102016-03-14 00:57 J -35539848.67 -35539848.46 -35539848.24 0.0493 0.0257

Uranus -102016-10-04 05:45 J -35539644.46 -35539644.26 -35539644.05 0.0137 0.0080

Saturn -102013-01-30 04:04 J -35538796.57 -35538796.33 -35538796.08 0.0280 0.0071

Jupiter -102011-09-08 21:49 J -35537843.79 -35537843.59 -35537843.40 0.0536 0.0296

102ND MILLENNIUM BCE

This is a list of transits of Moon in the 102nd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-102000-07-20 14:23 J	-35533876.01	-35533875.90	-35533875.78	0.1818	0.1386		
Jupiter	-101999-09-13 16:04 J	-35533456.03	-35533455.83	-35533455.62	0.0534	0.0166		
Saturn	-101998-08-08 05:01 J	-35533127.52	-35533127.29	-35533127.06	0.0279	0.0067		
Neptune	-101990-08-14 21:06 J	-35530198.79	-35530198.62	-35530198.44	0.0088	0.0065		
Neptune	-101989-08-16 10:47 J	-35529831.26	-35529831.05	-35529830.80	0.0088	0.0032		
Neptune	-101988-08-18 12:13 J	-35529464.24	-35529463.99	-35529463.74	0.0088	0.0003		
Neptune	-101987-08-21 02:37 J	-35529096.63	-35529096.39	-35529096.15	0.0088	0.0031		
Neptune	-101986-08-23 04:33 J	-35528729.47	-35528729.31	-35528729.11	0.0088	0.0059		
Saturn	-101983-02-06 05:45 J	-35527831.45	-35527831.26	-35527831.05	0.0279	0.0178		
Uranus	-101979-03-25 19:25 J	-35526322.80	-35526322.69	-35526322.54	0.0143	0.0125		
Uranus	-101978-03-30 21:49 J	-35525952.83	-35525952.59	-35525952.33	0.0142	0.0036		
Uranus	-101977-04-04 10:04 J	-35525582.34	-35525582.08	-35525581.82	0.0142	0.0038		

Uranus -101976-04-09 07:25 J -35525212.26 -35525212.19 -35525212.12 0.0141 0.0136
 Mars -101974-01-10 15:49 J -35524570.93 -35524570.84 -35524570.75 0.1702 0.1490
 Saturn -101969-08-02 14:09 J -35522540.01 -35522539.91 -35522539.79 0.0279 0.0247
 Saturn -101968-08-14 19:40 J -35522162.87 -35522162.68 -35522162.49 0.0281 0.0182
 Saturn -101954-01-31 20:52 J -35517244.88 -35517244.63 -35517244.39 0.0280 0.0013
 Jupiter -101945-03-08 09:49 J -35513921.32 -35513921.09 -35513920.85 0.0492 0.0176
 Saturn -101939-08-09 15:35 J -35511576.08 -35511575.85 -35511575.62 0.0279 0.0018
 Uranus -101935-09-23 04:47 J -35510070.39 -35510070.30 -35510070.17 0.0136 0.0119
 Uranus -101934-09-27 05:45 J -35509701.47 -35509701.26 -35509701.03 0.0136 0.0066
 Jupiter -101933-03-12 23:16 J -35509533.75 -35509533.53 -35509533.31 0.0493 0.0192
 Uranus -101933-09-30 11:30 J -35509332.25 -35509332.02 -35509331.78 0.0137 0.0015
 Uranus -101932-10-04 13:54 J -35508963.12 -35508962.92 -35508962.70 0.0137 0.0076
 Jupiter -101928-09-08 01:54 J -35507528.57 -35507528.42 -35507528.26 0.0536 0.0376
 Saturn -101925-01-25 18:28 J -35506658.87 -35506658.73 -35506658.57 0.0281 0.0231
 Saturn -101924-02-07 12:57 J -35506280.09 -35506279.96 -35506279.81 0.0279 0.0231
 Mars -101921-07-23 00:57 J -35505018.64 -35505018.46 -35505018.28 0.1813 0.0217
 Jupiter -101916-09-12 19:54 J -35503140.90 -35503140.67 -35503140.44 0.0534 0.0075
 Saturn -101910-08-04 15:35 J -35500989.01 -35500988.85 -35500988.67 0.0279 0.0200
 Saturn -101909-08-15 21:06 J -35500611.75 -35500611.62 -35500611.47 0.0281 0.0228
 Neptune -101907-02-08 02:23 J -35500070.61 -35500070.40 -35500070.15 0.0089 0.0049
 Neptune -101906-02-10 15:35 J -35499703.09 -35499702.85 -35499702.59 0.0089 0.0024
 Neptune -101905-02-13 07:25 J -35499335.46 -35499335.19 -35499334.92 0.0089 0.0019
 Neptune -101904-02-15 01:11 J -35498967.65 -35498967.45 -35498967.21 0.0089 0.0045
 Neptune -101903-02-17 12:28 J -35498599.99 -35498599.98 -35498599.90 0.0089 0.0088
 Mars -101895-01-12 19:25 J -35495713.87 -35495713.69 -35495713.50 0.1706 0.0043
 Saturn -101895-02-02 09:35 J -35495693.34 -35495693.10 -35495692.85 0.0280 0.0042
 Uranus -101895-03-26 00:42 J -35495641.59 -35495641.47 -35495641.33 0.0143 0.0124
 Uranus -101894-03-31 04:18 J -35495271.56 -35495271.32 -35495271.07 0.0142 0.0042
 Uranus -101893-04-04 15:21 J -35494901.10 -35494900.86 -35494900.59 0.0142 0.0054
 Uranus -101892-04-09 13:25 J -35494531.04 -35494530.94 -35494530.79 0.0141 0.0122

Saturn -101880-08-10 23:59 J -35490024.74 -35490024.50 -35490024.26 0.0279 0.0029
 Saturn -101866-01-26 23:16 J -35485107.71 -35485107.53 -35485107.32 0.0281 0.0179
 Pluto -101865-03-19 17:16 J -35484689.97 -35484689.78 -35484689.53 0.0066 0.0040
 Pluto -101864-03-21 14:52 J -35484323.03 -35484322.88 -35484322.67 0.0066 0.0048
 Jupiter -101862-03-08 11:16 J -35483606.24 -35483606.03 -35483605.82 0.0492 0.0228
 Saturn -101851-08-05 15:06 J -35479438.05 -35479437.87 -35479437.66 0.0279 0.0159
 Uranus -101851-09-23 14:23 J -35479388.94 -35479388.90 -35479388.82 0.0136 0.0131
 Jupiter -101850-03-13 11:30 J -35479218.26 -35479218.02 -35479217.78 0.0493 0.0132
 Saturn -101850-08-18 01:54 J -35479060.46 -35479060.42 -35479060.35 0.0281 0.0274
 Uranus -101850-09-27 13:54 J -35479020.15 -35479019.92 -35479019.68 0.0136 0.0050
 Uranus -101849-09-30 20:37 J -35478650.88 -35478650.64 -35478650.40 0.0137 0.0005
 Uranus -101848-10-04 21:21 J -35478281.80 -35478281.61 -35478281.40 0.0137 0.0084
 Jupiter -101845-09-07 06:28 J -35477213.33 -35477213.23 -35477213.11 0.0536 0.0466
 Mars -101842-07-26 14:09 J -35476160.98 -35476160.91 -35476160.84 0.1809 0.1663
 Jupiter -101838-03-17 18:28 J -35474830.78 -35474830.73 -35474830.67 0.0494 0.0480
 Saturn -101836-02-03 14:52 J -35474142.13 -35474141.88 -35474141.63 0.0280 0.0090
 Jupiter -101833-09-11 19:54 J -35472825.89 -35472825.67 -35472825.45 0.0536 0.0012
 Neptune -101826-08-14 17:59 J -35470297.83 -35470297.75 -35470297.65 0.0088 0.0082
 Neptune -101825-08-15 19:11 J -35469930.92 -35469930.70 -35469930.48 0.0088 0.0042
 Neptune -101824-08-18 09:06 J -35469563.36 -35469563.12 -35469562.86 0.0088 0.0019
 Neptune -101823-08-20 11:45 J -35469196.24 -35469196.01 -35469195.77 0.0088 0.0021
 Neptune -101822-08-22 21:49 J -35468828.80 -35468828.59 -35468828.35 0.0088 0.0043
 Saturn -101821-08-12 00:42 J -35468473.70 -35468473.47 -35468473.23 0.0279 0.0073
 Neptune -101821-08-24 05:01 J -35468461.35 -35468461.29 -35468461.18 0.0088 0.0083
 Jupiter -101821-09-16 22:33 J -35468437.60 -35468437.56 -35468437.51 0.0534 0.0522
 Mars -101816-01-15 07:11 J -35466856.38 -35466856.20 -35466856.03 0.1709 0.0825
 Uranus -101811-03-26 07:25 J -35464960.31 -35464960.19 -35464960.02 0.0143 0.0120
 Uranus -101810-03-31 12:42 J -35464590.22 -35464589.97 -35464589.72 0.0142 0.0033
 Uranus -101809-04-04 22:18 J -35464219.83 -35464219.57 -35464219.31 0.0142 0.0041
 Uranus -101808-04-09 21:06 J -35463849.66 -35463849.62 -35463849.55 0.0141 0.0137

Saturn -101807-01-28 06:13 J -35463556.45 -35463556.24 -35463556.02 0.0281 0.0132
 Saturn -101792-08-06 18:57 J -35457886.92 -35457886.71 -35457886.50 0.0279 0.0116
 Jupiter -101779-03-07 21:21 J -35453290.81 -35453290.61 -35453290.41 0.0491 0.0283
 Pluto -101779-09-19 19:40 J -35453094.82 -35453094.68 -35453094.48 0.0079 0.0059
 Pluto -101778-09-22 01:40 J -35452727.51 -35452727.43 -35452727.30 0.0078 0.0071
 Saturn -101777-02-05 13:11 J -35452591.17 -35452590.95 -35452590.71 0.0280 0.0130
 Jupiter -101767-03-12 07:11 J -35448903.43 -35448903.20 -35448902.95 0.0492 0.0068
 Uranus -101767-09-24 00:28 J -35448707.59 -35448707.48 -35448707.34 0.0136 0.0115
 Uranus -101766-09-27 22:47 J -35448338.75 -35448338.55 -35448338.31 0.0136 0.0063
 Uranus -101765-10-01 07:11 J -35447969.44 -35447969.20 -35447968.96 0.0137 0.0019
 Uranus -101764-10-05 06:57 J -35447600.41 -35447600.21 -35447600.00 0.0137 0.0078
 Saturn -101762-08-13 21:49 J -35446922.81 -35446922.59 -35446922.36 0.0279 0.0113
 Jupiter -101762-09-07 09:49 J -35446898.12 -35446898.09 -35446898.05 0.0537 0.0527
 Jupiter -101755-03-17 08:09 J -35444515.27 -35444515.16 -35444515.05 0.0494 0.0435
 Jupiter -101750-09-12 12:57 J -35442510.18 -35442509.96 -35442509.74 0.0536 0.0031
 Saturn -101748-01-29 12:28 J -35442005.20 -35442004.98 -35442004.74 0.0281 0.0091
 Neptune -101743-02-07 08:52 J -35440170.28 -35440170.13 -35440169.94 0.0089 0.0067
 Neptune -101742-02-09 23:01 J -35439802.79 -35439802.54 -35439802.28 0.0089 0.0035
 Neptune -101741-02-12 18:28 J -35439434.99 -35439434.73 -35439434.47 0.0089 0.0001
 Neptune -101740-02-14 03:49 J -35439067.57 -35439067.34 -35439067.06 0.0089 0.0033
 Neptune -101739-02-17 02:23 J -35438699.54 -35438699.40 -35438699.20 0.0089 0.0068
 Jupiter -101738-09-16 22:18 J -35438122.69 -35438122.57 -35438122.45 0.0534 0.0452
 Saturn -101733-08-07 22:47 J -35436335.77 -35436335.55 -35436335.32 0.0279 0.0078
 Uranus -101727-03-26 15:06 J -35434279.00 -35434278.87 -35434278.71 0.0143 0.0120
 Uranus -101726-03-31 21:35 J -35433908.83 -35433908.60 -35433908.34 0.0142 0.0037
 Uranus -101725-04-05 05:59 J -35433538.49 -35433538.25 -35433537.99 0.0142 0.0057
 Uranus -101724-04-10 06:42 J -35433168.33 -35433168.22 -35433168.10 0.0141 0.0125
 Saturn -101718-02-06 13:11 J -35431040.14 -35431039.95 -35431039.75 0.0280 0.0169
 Mars -101716-07-20 13:11 J -35430145.10 -35430144.95 -35430144.80 0.1825 0.1280
 Saturn -101704-08-02 17:01 J -35425748.86 -35425748.79 -35425748.72 0.0277 0.0264

Saturn -101703-08-14 23:16 J -35425371.72 -35425371.53 -35425371.33 0.0279 0.0154
 Jupiter -101696-03-06 21:21 J -35422975.78 -35422975.61 -35422975.42 0.0491 0.0331
 Mars -101690-01-11 07:40 J -35420839.33 -35420839.18 -35420839.03 0.1697 0.1156
 Saturn -101689-01-31 13:11 J -35420454.20 -35420453.95 -35420453.70 0.0281 0.0053
 Jupiter -101684-03-11 22:47 J -35418587.79 -35418587.55 -35418587.31 0.0492 0.0018
 Uranus -101683-09-24 10:18 J -35418026.15 -35418026.07 -35418025.98 0.0136 0.0126
 Uranus -101682-09-28 07:25 J -35417657.42 -35417657.19 -35417656.95 0.0136 0.0046
 Uranus -101681-10-01 16:18 J -35417288.05 -35417287.82 -35417287.58 0.0137 0.0009
 Uranus -101680-10-05 15:06 J -35416919.05 -35416918.87 -35416918.67 0.0137 0.0088
 Saturn -101674-08-09 22:33 J -35414784.80 -35414784.56 -35414784.32 0.0279 0.0039
 Jupiter -101672-03-16 12:42 J -35414200.12 -35414199.97 -35414199.82 0.0494 0.0393
 Jupiter -101667-09-11 11:30 J -35412195.24 -35412195.02 -35412194.79 0.0536 0.0098
 Neptune -101661-08-15 14:52 J -35410030.03 -35410029.88 -35410029.67 0.0088 0.0062
 Saturn -101660-01-24 12:57 J -35409868.03 -35409867.96 -35409867.86 0.0282 0.0264
 Neptune -101660-08-17 18:57 J -35409662.93 -35409662.71 -35409662.47 0.0088 0.0027
 Saturn -101659-02-07 16:18 J -35409488.99 -35409488.82 -35409488.65 0.0280 0.0202
 Neptune -101659-08-20 05:16 J -35409295.54 -35409295.28 -35409295.03 0.0088 0.0002
 Neptune -101658-08-22 12:42 J -35408928.18 -35408927.97 -35408927.73 0.0088 0.0035
 Neptune -101657-08-23 17:16 J -35408560.95 -35408560.78 -35408560.60 0.0088 0.0064
 Jupiter -101655-09-16 09:06 J -35407807.26 -35407807.12 -35407806.97 0.0535 0.0395
 Saturn -101645-08-03 16:47 J -35404197.92 -35404197.80 -35404197.65 0.0277 0.0227
 Saturn -101644-08-16 03:35 J -35403820.50 -35403820.35 -35403820.17 0.0279 0.0195
 Uranus -101643-03-27 00:42 J -35403597.62 -35403597.47 -35403597.28 0.0143 0.0111
 Uranus -101642-04-01 08:37 J -35403227.39 -35403227.14 -35403226.88 0.0142 0.0027
 Uranus -101641-04-05 14:52 J -35402857.12 -35402856.88 -35402856.61 0.0142 0.0048
 Mars -101637-07-23 17:16 J -35401286.97 -35401286.78 -35401286.58 0.1820 0.0052
 Saturn -101630-02-01 07:54 J -35398903.43 -35398903.17 -35398902.91 0.0281 0.0020
 Pluto -101619-03-21 16:04 J -35394836.97 -35394836.83 -35394836.63 0.0066 0.0050
 Pluto -101618-03-23 13:11 J -35394470.16 -35394469.95 -35394469.70 0.0066 0.0039
 Saturn -101615-08-10 17:59 J -35393233.99 -35393233.75 -35393233.50 0.0279 0.0004

Jupiter -101613-03-06 14:37 J -35392660.04 -35392659.89 -35392659.73 0.0491 0.0373
 Mars -101611-01-13 22:47 J -35391981.74 -35391981.55 -35391981.37 0.1700 0.0495
 Saturn -101601-01-26 16:18 J -35388316.95 -35388316.82 -35388316.67 0.0282 0.0230
 Jupiter -101601-03-11 01:25 J -35388272.69 -35388272.44 -35388272.18 0.0491 0.0033
 Saturn -101600-02-08 17:30 J -35387937.89 -35387937.77 -35387937.62 0.0280 0.0235
 Uranus -101599-09-24 20:23 J -35387344.77 -35387344.65 -35387344.49 0.0136 0.0110
 Uranus -101598-09-28 17:16 J -35386976.00 -35386975.78 -35386975.55 0.0136 0.0057
 Uranus -101597-10-02 02:52 J -35386606.61 -35386606.38 -35386606.14 0.0137 0.0024
 Uranus -101596-10-06 00:57 J -35386237.65 -35386237.46 -35386237.24 0.0137 0.0081
 Jupiter -101589-03-15 21:06 J -35383884.79 -35383884.62 -35383884.46 0.0492 0.0353
 Saturn -101586-08-05 22:33 J -35382646.72 -35382646.56 -35382646.38 0.0277 0.0188
 Saturn -101585-08-17 06:28 J -35382269.35 -35382269.23 -35382269.09 0.0279 0.0233
 Jupiter -101584-09-11 00:13 J -35381879.70 -35381879.49 -35381879.28 0.0537 0.0143
 Neptune -101579-02-06 12:13 J -35380270.00 -35380269.99 -35380269.93 0.0089 0.0088
 Neptune -101578-02-09 09:35 J -35379902.31 -35379902.10 -35379901.87 0.0089 0.0046
 Neptune -101577-02-11 18:28 J -35379534.98 -35379534.73 -35379534.45 0.0089 0.0022
 Neptune -101576-02-13 17:30 J -35379167.01 -35379166.77 -35379166.50 0.0089 0.0023
 Neptune -101575-02-16 02:09 J -35378799.61 -35378799.41 -35378799.17 0.0089 0.0048
 Jupiter -101572-09-15 18:57 J -35377491.88 -35377491.71 -35377491.53 0.0535 0.0346
 Saturn -101571-02-02 05:30 J -35377352.51 -35377352.27 -35377352.02 0.0281 0.0016
 Uranus -101559-03-27 09:35 J -35372916.25 -35372916.10 -35372915.92 0.0143 0.0112
 Uranus -101558-04-01 19:11 J -35372545.95 -35372545.70 -35372545.45 0.0142 0.0026
 Uranus -101557-04-06 00:13 J -35372175.71 -35372175.49 -35372175.22 0.0142 0.0064
 Uranus -101556-04-11 04:04 J -35371805.41 -35371805.33 -35371805.23 0.0141 0.0131
 Saturn -101556-08-11 16:33 J -35371683.04 -35371682.81 -35371682.57 0.0279 0.0036
 Saturn -101542-01-27 16:47 J -35366765.98 -35366765.80 -35366765.61 0.0282 0.0194
 Saturn -101541-02-10 13:54 J -35366386.99 -35366386.92 -35366386.84 0.0280 0.0267
 Pluto -101533-09-21 01:25 J -35363241.57 -35363241.44 -35363241.30 0.0079 0.0065
 Mars -101532-01-16 04:33 J -35363124.44 -35363124.31 -35363124.18 0.1704 0.1179
 Pluto -101532-09-23 00:42 J -35362874.61 -35362874.47 -35362874.30 0.0078 0.0062

Jupiter -101530-03-06 17:16 J -35362344.90 -35362344.78 -35362344.64 0.0490 0.0418
 Saturn -101527-08-07 03:06 J -35361095.56 -35361095.37 -35361095.16 0.0277 0.0147
 Saturn -101526-08-19 05:30 J -35360718.30 -35360718.27 -35360718.23 0.0279 0.0276
 Jupiter -101518-03-11 10:33 J -35357957.29 -35357957.06 -35357956.83 0.0491 0.0084
 Uranus -101515-09-25 05:45 J -35356663.37 -35356663.26 -35356663.15 0.0136 0.0120
 Uranus -101514-09-29 01:40 J -35356294.66 -35356294.43 -35356294.19 0.0136 0.0040
 Uranus -101513-10-02 11:59 J -35355925.24 -35355925.00 -35355924.76 0.0137 0.0013
 Saturn -101512-02-03 11:01 J -35355801.28 -35355801.04 -35355800.80 0.0281 0.0054
 Uranus -101512-10-06 09:35 J -35355556.27 -35355556.10 -35355555.91 0.0137 0.0092
 Jupiter -101506-03-16 05:59 J -35353569.45 -35353569.25 -35353569.05 0.0492 0.0309
 Jupiter -101501-09-10 06:28 J -35351564.45 -35351564.23 -35351564.01 0.0537 0.0193
 Saturn -101497-08-12 22:33 J -35350131.78 -35350131.56 -35350131.34 0.0279 0.0080
 Neptune -101497-08-15 00:57 J -35350129.57 -35350129.46 -35350129.35 0.0088 0.0078
 Neptune -101496-08-17 09:35 J -35349762.31 -35349762.10 -35349761.85 0.0088 0.0039
 Neptune -101495-08-19 19:11 J -35349394.94 -35349394.70 -35349394.46 0.0088 0.0015
 Neptune -101494-08-21 23:16 J -35349027.76 -35349027.53 -35349027.27 0.0088 0.0024
 Neptune -101493-08-23 12:28 J -35348660.17 -35348659.98 -35348659.76 0.0088 0.0046
 Neptune -101492-08-25 13:40 J -35348292.98 -35348292.93 -35348292.87 0.0088 0.0086
 Jupiter -101489-09-14 23:16 J -35347176.71 -35347176.53 -35347176.34 0.0535 0.0276
 Mars -101485-01-09 07:40 J -35345965.23 -35345965.18 -35345965.13 0.1687 0.1612
 Saturn -101483-01-28 13:11 J -35345215.17 -35345214.95 -35345214.73 0.0282 0.0155
 Uranus -101475-03-27 17:30 J -35342234.94 -35342234.77 -35342234.55 0.0143 0.0101
 Uranus -101474-04-02 04:47 J -35341864.55 -35341864.30 -35341864.05 0.0142 0.0020
 Uranus -101473-04-06 08:23 J -35341494.39 -35341494.15 -35341493.89 0.0142 0.0056
 Saturn -101468-08-08 03:21 J -35339544.58 -35339544.36 -35339544.12 0.0277 0.0102
 Saturn -101453-02-05 17:59 J -35334249.98 -35334249.75 -35334249.51 0.0281 0.0097
 Jupiter -101447-03-06 01:25 J -35332029.48 -35332029.44 -35332029.38 0.0490 0.0478
 Saturn -101438-08-15 06:28 J -35328580.44 -35328580.23 -35328580.02 0.0279 0.0125
 Jupiter -101435-03-10 19:25 J -35327641.93 -35327641.69 -35327641.45 0.0491 0.0131
 Mars -101432-07-20 12:28 J -35326414.11 -35326413.98 -35326413.85 0.1833 0.1286

Uranus -101431-09-25 16:04 J -35325981.97 -35325981.83 -35325981.66 0.0135 0.0103
 Uranus -101430-09-29 12:13 J -35325613.21 -35325612.99 -35325612.76 0.0136 0.0051
 Uranus -101429-10-02 22:47 J -35325243.79 -35325243.55 -35325243.31 0.0137 0.0029
 Uranus -101428-10-06 20:09 J -35324874.85 -35324874.66 -35324874.46 0.0137 0.0084
 Saturn -101424-01-29 14:23 J -35323664.13 -35323663.90 -35323663.67 0.0282 0.0113
 Jupiter -101423-03-15 08:37 J -35323254.33 -35323254.14 -35323253.94 0.0492 0.0269
 Jupiter -101418-09-10 05:45 J -35321249.44 -35321249.26 -35321249.08 0.0538 0.0282
 Neptune -101414-02-08 08:23 J -35320002.30 -35320002.15 -35320001.94 0.0089 0.0065
 Neptune -101413-02-11 07:40 J -35319634.42 -35319634.18 -35319633.93 0.0089 0.0033
 Neptune -101412-02-12 16:47 J -35319267.06 -35319266.80 -35319266.54 0.0089 0.0003
 Neptune -101411-02-15 13:25 J -35318899.18 -35318898.94 -35318898.67 0.0089 0.0035
 Neptune -101410-02-18 02:09 J -35318531.56 -35318531.41 -35318531.25 0.0089 0.0070
 Saturn -101409-08-09 05:45 J -35317993.49 -35317993.26 -35317993.02 0.0278 0.0055
 Mars -101406-01-11 13:11 J -35317108.11 -35317107.95 -35317107.79 0.1691 0.0970
 Jupiter -101406-09-15 04:47 J -35316861.51 -35316861.30 -35316861.08 0.0537 0.0192
 Saturn -101394-02-06 21:49 J -35312698.81 -35312698.59 -35312698.36 0.0281 0.0145
 Uranus -101391-03-28 02:09 J -35311553.59 -35311553.41 -35311553.22 0.0143 0.0105
 Uranus -101390-04-02 14:23 J -35311183.16 -35311182.90 -35311182.65 0.0142 0.0019
 Uranus -101389-04-06 16:47 J -35310813.03 -35310812.80 -35310812.55 0.0142 0.0069
 Uranus -101388-04-11 23:59 J -35310442.56 -35310442.50 -35310442.44 0.0141 0.0137
 Saturn -101380-08-04 06:42 J -35307406.32 -35307406.22 -35307406.10 0.0277 0.0244
 Saturn -101379-08-16 11:01 J -35307029.23 -35307029.04 -35307028.84 0.0279 0.0175
 Pluto -101372-03-24 05:16 J -35304617.53 -35304617.28 -35304617.02 0.0066 0.0024
 Saturn -101365-01-31 23:59 J -35302112.73 -35302112.50 -35302112.26 0.0282 0.0061
 Mars -101353-07-23 10:47 J -35297556.25 -35297556.05 -35297555.84 0.1828 0.0154
 Jupiter -101352-03-09 20:52 J -35297326.84 -35297326.63 -35297326.41 0.0490 0.0183
 Saturn -101350-08-11 15:06 J -35296442.10 -35296441.87 -35296441.64 0.0278 0.0003
 Uranus -101347-09-26 01:25 J -35295300.55 -35295300.44 -35295300.28 0.0135 0.0114
 Uranus -101346-09-29 21:49 J -35294931.82 -35294931.59 -35294931.35 0.0136 0.0034
 Uranus -101345-10-03 08:09 J -35294562.40 -35294562.16 -35294561.91 0.0137 0.0017

Uranus -101344-10-07 05:16 J -35294193.44 -35294193.28 -35294193.09 0.0137 0.0096
 Jupiter -101340-03-14 16:47 J -35292939.02 -35292938.80 -35292938.58 0.0491 0.0210
 Saturn -101336-01-25 08:09 J -35291526.26 -35291526.16 -35291526.05 0.0283 0.0257
 Saturn -101335-02-08 03:06 J -35291147.55 -35291147.37 -35291147.18 0.0280 0.0196
 Jupiter -101335-09-09 15:06 J -35290934.05 -35290933.87 -35290933.69 0.0538 0.0342
 Neptune -101333-08-14 14:09 J -35290228.93 -35290228.91 -35290228.82 0.0088 0.0087
 Neptune -101332-08-17 00:28 J -35289861.65 -35289861.48 -35289861.28 0.0088 0.0058
 Neptune -101331-08-19 03:49 J -35289494.57 -35289494.34 -35289494.09 0.0088 0.0025
 Neptune -101330-08-21 17:45 J -35289127.00 -35289126.76 -35289126.51 0.0088 0.0004
 Neptune -101329-08-22 18:42 J -35288759.94 -35288759.72 -35288759.49 0.0088 0.0038
 Neptune -101328-08-25 08:23 J -35288392.29 -35288392.15 -35288391.96 0.0088 0.0067
 Mars -101327-01-14 05:59 J -35288250.44 -35288250.25 -35288250.06 0.1694 0.0683
 Jupiter -101323-09-14 05:30 J -35286546.49 -35286546.27 -35286546.06 0.0536 0.0119
 Saturn -101321-08-05 13:40 J -35285855.10 -35285854.93 -35285854.74 0.0277 0.0190
 Saturn -101320-08-17 15:06 J -35285478.00 -35285477.87 -35285477.72 0.0279 0.0229
 Jupiter -101311-09-19 05:01 J -35282158.33 -35282158.29 -35282158.24 0.0535 0.0522
 Uranus -101307-03-28 10:04 J -35280872.27 -35280872.08 -35280871.86 0.0143 0.0093
 Saturn -101306-02-02 13:25 J -35280561.18 -35280560.94 -35280560.69 0.0281 0.0009
 Uranus -101306-04-02 23:30 J -35280501.77 -35280501.52 -35280501.26 0.0142 0.0015
 Uranus -101305-04-07 00:57 J -35280131.69 -35280131.46 -35280131.20 0.0142 0.0062
 Saturn -101291-08-13 04:18 J -35274890.55 -35274890.32 -35274890.09 0.0278 0.0054
 Pluto -101286-09-24 20:23 J -35273021.85 -35273021.65 -35273021.42 0.0078 0.0037
 Saturn -101277-01-27 16:18 J -35269974.99 -35269974.82 -35269974.63 0.0282 0.0202
 Saturn -101276-02-09 15:06 J -35269595.96 -35269595.87 -35269595.75 0.0280 0.0254
 Jupiter -101269-03-09 03:35 J -35267011.57 -35267011.35 -35267011.14 0.0490 0.0252
 Uranus -101263-09-26 12:57 J -35264619.11 -35264618.96 -35264618.76 0.0135 0.0097
 Saturn -101262-08-07 19:11 J -35264303.91 -35264303.70 -35264303.48 0.0277 0.0136
 Uranus -101262-09-30 09:35 J -35264250.32 -35264250.10 -35264249.86 0.0136 0.0046
 Uranus -101261-10-03 19:40 J -35263880.92 -35263880.68 -35263880.44 0.0137 0.0034
 Uranus -101260-10-07 17:16 J -35263511.96 -35263511.78 -35263511.59 0.0137 0.0087

Jupiter -101257-03-13 12:13 J -35262624.21 -35262623.99 -35262623.75 0.0491 0.0155
 Jupiter -101252-09-08 11:45 J -35260619.14 -35260619.01 -35260618.88 0.0538 0.0428
 Neptune -101250-02-07 20:37 J -35260101.67 -35260101.64 -35260101.56 0.0089 0.0087
 Neptune -101249-02-10 06:42 J -35259734.42 -35259734.22 -35259733.98 0.0089 0.0045
 Mars -101248-01-17 02:23 J -35259392.50 -35259392.40 -35259392.31 0.1698 0.1482
 Neptune -101248-02-12 02:09 J -35259366.67 -35259366.41 -35259366.14 0.0089 0.0019
 Saturn -101247-02-04 01:54 J -35259009.67 -35259009.42 -35259009.17 0.0281 0.0050
 Neptune -101247-02-14 15:49 J -35258999.08 -35258998.84 -35258998.58 0.0089 0.0024
 Neptune -101246-02-17 06:13 J -35258631.45 -35258631.24 -35258630.99 0.0089 0.0049
 Jupiter -101240-09-13 08:09 J -35256231.39 -35256231.16 -35256230.94 0.0537 0.0012
 Saturn -101232-08-14 14:37 J -35253339.11 -35253338.89 -35253338.66 0.0279 0.0108
 Jupiter -101228-09-17 19:25 J -35251843.83 -35251843.69 -35251843.55 0.0536 0.0413
 Uranus -101223-03-28 20:09 J -35250190.84 -35250190.66 -35250190.45 0.0143 0.0099
 Uranus -101222-04-03 10:33 J -35249820.32 -35249820.06 -35249819.80 0.0143 0.0012
 Uranus -101221-04-07 10:47 J -35249450.27 -35249450.05 -35249449.80 0.0142 0.0074
 Saturn -101218-01-29 07:11 J -35248423.41 -35248423.20 -35248422.99 0.0282 0.0140
 Saturn -101203-08-09 04:33 J -35242752.54 -35242752.31 -35242752.09 0.0278 0.0082
 Mars -101201-01-10 11:45 J -35242233.15 -35242233.01 -35242232.87 0.1682 0.1137
 Saturn -101188-02-05 11:01 J -35237458.27 -35237458.04 -35237457.79 0.0281 0.0108
 Jupiter -101186-03-08 23:45 J -35236696.70 -35236696.51 -35236696.33 0.0490 0.0309
 Uranus -101179-09-26 23:45 J -35233937.66 -35233937.51 -35233937.35 0.0135 0.0106
 Uranus -101178-09-30 20:09 J -35233568.89 -35233568.66 -35233568.42 0.0136 0.0029
 Uranus -101177-10-04 05:30 J -35233199.51 -35233199.27 -35233199.02 0.0137 0.0023
 Uranus -101176-10-08 03:49 J -35232830.50 -35232830.34 -35232830.17 0.0137 0.0101
 Jupiter -101174-03-13 22:18 J -35232308.80 -35232308.57 -35232308.34 0.0491 0.0104
 Saturn -101174-08-04 17:45 J -35232164.86 -35232164.76 -35232164.65 0.0277 0.0251
 Saturn -101173-08-15 20:37 J -35231787.83 -35231787.64 -35231787.43 0.0279 0.0165
 Jupiter -101169-09-07 13:40 J -35230303.96 -35230303.93 -35230303.90 0.0539 0.0533
 Neptune -101168-08-16 07:25 J -35229961.29 -35229961.19 -35229961.03 0.0088 0.0077
 Neptune -101167-08-18 22:04 J -35229593.78 -35229593.58 -35229593.33 0.0088 0.0037

Neptune -101166-08-20 23:30 J -35229226.75 -35229226.52 -35229226.26 0.0088 0.0015
 Neptune -101165-08-22 13:25 J -35228859.16 -35228858.94 -35228858.68 0.0088 0.0027
 Neptune -101164-08-24 16:18 J -35228492.00 -35228491.82 -35228491.60 0.0088 0.0049
 Neptune -101163-08-27 02:09 J -35228124.42 -35228124.41 -35228124.35 0.0088 0.0087
 Saturn -101159-01-31 02:37 J -35226871.62 -35226871.39 -35226871.15 0.0282 0.0080
 Jupiter -101157-09-12 04:18 J -35225916.55 -35225916.32 -35225916.10 0.0538 0.0082
 Mars -101148-07-21 05:45 J -35222682.41 -35222682.26 -35222682.10 0.1839 0.1015
 Jupiter -101145-09-17 05:45 J -35221528.42 -35221528.26 -35221528.09 0.0536 0.0341
 Saturn -101144-08-10 17:30 J -35221201.00 -35221200.77 -35221200.54 0.0278 0.0027
 Uranus -101139-03-29 07:54 J -35219509.37 -35219509.17 -35219508.95 0.0143 0.0084
 Uranus -101138-04-03 22:47 J -35219138.81 -35219138.55 -35219138.29 0.0143 0.0007
 Uranus -101137-04-07 22:33 J -35218768.79 -35218768.56 -35218768.32 0.0142 0.0069
 Saturn -101129-02-07 22:18 J -35215906.77 -35215906.57 -35215906.36 0.0280 0.0165
 Pluto -101126-03-26 04:47 J -35214764.56 -35214764.30 -35214764.03 0.0066 0.0003
 Mars -101122-01-12 17:30 J -35213375.94 -35213375.77 -35213375.60 0.1686 0.0501
 Saturn -101115-08-05 23:01 J -35210613.70 -35210613.54 -35210613.36 0.0277 0.0198
 Saturn -101114-08-18 02:52 J -35210236.53 -35210236.38 -35210236.23 0.0280 0.0217
 Jupiter -101103-03-08 05:30 J -35206381.42 -35206381.27 -35206381.12 0.0489 0.0382
 Saturn -101100-02-01 20:09 J -35205319.91 -35205319.66 -35205319.40 0.0282 0.0021
 Uranus -101095-09-27 11:59 J -35203256.18 -35203256.00 -35203255.81 0.0135 0.0089
 Uranus -101094-10-01 09:06 J -35202887.34 -35202887.12 -35202886.88 0.0136 0.0039
 Uranus -101093-10-04 17:30 J -35202518.00 -35202517.77 -35202517.52 0.0137 0.0040
 Uranus -101092-10-08 16:04 J -35202148.99 -35202148.83 -35202148.64 0.0137 0.0093
 Jupiter -101091-03-12 14:52 J -35201994.13 -35201993.88 -35201993.63 0.0490 0.0029
 Neptune -101085-02-09 13:25 J -35199834.12 -35199833.94 -35199833.74 0.0089 0.0063
 Saturn -101085-08-12 06:13 J -35199649.48 -35199649.24 -35199649.01 0.0278 0.0025
 Neptune -101084-02-11 05:30 J -35199466.50 -35199466.27 -35199466.03 0.0089 0.0034
 Neptune -101083-02-13 18:13 J -35199099.01 -35199098.74 -35199098.46 0.0089 0.0003
 Neptune -101082-02-16 14:09 J -35198731.14 -35198730.91 -35198730.66 0.0089 0.0034
 Neptune -101081-02-18 23:45 J -35198363.66 -35198363.51 -35198363.34 0.0089 0.0071

Jupiter -101079-03-17 10:47 J -35197606.16 -35197606.05 -35197605.94 0.0492 0.0432
 Jupiter -101074-09-12 13:11 J -35195601.15 -35195600.95 -35195600.74 0.0538 0.0169
 Saturn -101071-01-26 12:28 J -35194734.11 -35194733.98 -35194733.83 0.0283 0.0232
 Saturn -101070-02-09 14:09 J -35194355.05 -35194354.91 -35194354.76 0.0280 0.0224
 Mars -101069-07-23 19:40 J -35193824.86 -35193824.68 -35193824.50 0.1835 0.0049
 Jupiter -101062-09-17 00:13 J -35191213.70 -35191213.49 -35191213.28 0.0536 0.0234
 Saturn -101056-08-07 02:09 J -35189062.60 -35189062.41 -35189062.20 0.0278 0.0150
 Uranus -101055-03-29 20:52 J -35188827.82 -35188827.63 -35188827.41 0.0143 0.0089
 Saturn -101055-08-19 11:16 J -35188685.08 -35188685.03 -35188684.96 0.0280 0.0269
 Uranus -101054-04-04 11:59 J -35188457.26 -35188457.00 -35188456.73 0.0143 0.0002
 Uranus -101053-04-08 10:47 J -35188087.25 -35188087.05 -35188086.82 0.0142 0.0083
 Mars -101043-01-14 19:25 J -35184518.84 -35184518.69 -35184518.55 0.1689 0.0999
 Saturn -101041-02-04 06:42 J -35183768.48 -35183768.22 -35183767.96 0.0281 0.0037
 Pluto -101040-09-25 22:04 J -35183168.82 -35183168.58 -35183168.34 0.0078 0.0010
 Saturn -101026-08-14 12:13 J -35178098.22 -35178097.99 -35178097.75 0.0278 0.0076
 Jupiter -101020-03-07 01:54 J -35176066.52 -35176066.42 -35176066.30 0.0489 0.0439
 Saturn -101012-01-28 03:35 J -35173182.53 -35173182.35 -35173182.15 0.0283 0.0175
 Saturn -101011-02-11 05:45 J -35172803.28 -35172803.26 -35172803.21 0.0280 0.0278
 Uranus -101011-09-27 21:49 J -35172574.75 -35172574.59 -35172574.40 0.0135 0.0098
 Uranus -101010-10-01 20:09 J -35172205.89 -35172205.66 -35172205.42 0.0136 0.0022
 Uranus -101009-10-05 03:35 J -35171836.59 -35171836.35 -35171836.10 0.0137 0.0029
 Jupiter -101008-03-11 22:33 J -35171678.79 -35171678.56 -35171678.32 0.0490 0.0021
 Uranus -101008-10-09 03:35 J -35171467.49 -35171467.35 -35171467.20 0.0137 0.0106
 Neptune -101004-08-15 23:45 J -35170060.54 -35170060.51 -35170060.43 0.0088 0.0087
 Neptune -101003-08-18 01:54 J -35169693.60 -35169693.42 -35169693.23 0.0088 0.0058
 Neptune -101002-08-20 15:35 J -35169326.08 -35169325.85 -35169325.59 0.0088 0.0025
 Neptune -101001-08-21 20:09 J -35168958.90 -35168958.66 -35168958.42 0.0088 0.0005

101ST MILLENNIUM

BCE

This is a list of transits of Moon in the 101st millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Neptune	-101000-08-24 05:16 J	-35168591.49	-35168591.28	-35168591.03	0.0088	0.0039		
Neptune	-100999-08-26 14:37 J	-35168224.04	-35168223.89	-35168223.74	0.0088	0.0068		
Saturn	-100997-08-08 10:04 J	-35167511.30	-35167511.08	-35167510.87	0.0278	0.0101		
Jupiter	-100996-03-16 14:23 J	-35167291.06	-35167290.90	-35167290.73	0.0492	0.0370		
Jupiter	-100991-09-11 07:40 J	-35165286.38	-35165286.18	-35165285.98	0.0538	0.0272		
Saturn	-100982-02-05 12:57 J	-35162217.20	-35162216.96	-35162216.72	0.0281	0.0090		
Jupiter	-100979-09-16 05:16 J	-35160898.49	-35160898.28	-35160898.08	0.0537	0.0159		
Uranus	-100971-03-30 09:21 J	-35158146.32	-35158146.11	-35158145.87	0.0143	0.0072		
Uranus	-100970-04-05 00:42 J	-35157775.74	-35157775.47	-35157775.21	0.0143	0.0004		
Uranus	-100969-04-08 23:30 J	-35157405.72	-35157405.52	-35157405.28	0.0142	0.0080		
Saturn	-100967-08-15 12:57 J	-35156547.17	-35156546.96	-35156546.74	0.0278	0.0124		
Mars	-100964-01-17 05:30 J	-35155661.31	-35155661.27	-35155661.24	0.1692	0.1655		
Saturn	-100953-01-30 16:33 J	-35151631.03	-35151630.81	-35151630.59	0.0282	0.0123		
Saturn	-100938-08-10 17:59 J	-35145959.97	-35145959.75	-35145959.52	0.0278	0.0056		
Jupiter	-100937-03-06 11:30 J	-35145751.03	-35145751.02	-35145750.98	0.0489	0.0487		
Uranus	-100927-09-28 10:33 J	-35141893.26	-35141893.06	-35141892.86	0.0135	0.0081		
Uranus	-100926-10-02 09:21 J	-35141524.33	-35141524.11	-35141523.87	0.0136	0.0031		
Jupiter	-100925-03-10 23:45 J	-35141363.76	-35141363.51	-35141363.27	0.0490	0.0080		
Uranus	-100925-10-05 15:21 J	-35141155.08	-35141154.86	-35141154.61	0.0137	0.0047		
Uranus	-100924-10-09 15:49 J	-35140785.99	-35140785.84	-35140785.66	0.0137	0.0099		

Saturn -100923-02-06 21:21 J -35140665.82 -35140665.61 -35140665.39 0.0281 0.0139
 Neptune -100921-02-08 18:28 J -35139933.76 -35139933.73 -35139933.67 0.0089 0.0087
 Neptune -100920-02-10 04:47 J -35139566.52 -35139566.30 -35139566.05 0.0089 0.0046
 Neptune -100919-02-13 02:09 J -35139198.65 -35139198.41 -35139198.14 0.0089 0.0020
 Neptune -100918-02-15 10:47 J -35138831.30 -35138831.05 -35138830.79 0.0089 0.0022
 Mars -100917-01-10 21:35 J -35138501.77 -35138501.60 -35138501.42 0.1677 0.0815
 Neptune -100917-02-18 09:06 J -35138463.32 -35138463.12 -35138462.87 0.0089 0.0048
 Jupiter -100913-03-15 14:09 J -35136976.09 -35136975.91 -35136975.73 0.0491 0.0304
 Saturn -100909-08-04 11:45 J -35135373.13 -35135373.01 -35135372.88 0.0276 0.0238
 Saturn -100908-08-16 17:01 J -35134995.97 -35134995.79 -35134995.60 0.0278 0.0171
 Jupiter -100908-09-10 16:18 J -35134970.98 -35134970.82 -35134970.65 0.0539 0.0341
 Jupiter -100896-09-15 14:52 J -35130583.11 -35130582.88 -35130582.65 0.0537 0.0101
 Saturn -100894-01-31 21:21 J -35130079.86 -35130079.61 -35130079.36 0.0282 0.0074
 Uranus -100887-03-30 21:49 J -35127464.81 -35127464.59 -35127464.37 0.0143 0.0078
 Uranus -100886-04-05 12:28 J -35127094.24 -35127093.98 -35127093.71 0.0143 0.0009
 Uranus -100885-04-09 11:16 J -35126724.23 -35126724.03 -35126723.83 0.0142 0.0092
 Pluto -100880-03-26 21:06 J -35124911.86 -35124911.62 -35124911.35 0.0066 0.0025
 Pluto -100879-03-28 11:16 J -35124545.17 -35124545.03 -35124544.88 0.0067 0.0055
 Saturn -100879-08-11 20:23 J -35124408.90 -35124408.65 -35124408.41 0.0278 0.0013
 Saturn -100865-01-26 02:23 J -35119493.46 -35119493.40 -35119493.32 0.0283 0.0270
 Saturn -100864-02-08 06:28 J -35119114.41 -35119114.23 -35119114.04 0.0281 0.0185
 Mars -100864-07-20 21:21 J -35118951.78 -35118951.61 -35118951.45 0.1846 0.1163
 Saturn -100850-08-06 13:54 J -35113822.07 -35113821.92 -35113821.74 0.0276 0.0197
 Saturn -100849-08-17 23:59 J -35113444.65 -35113444.50 -35113444.36 0.0278 0.0215
 Uranus -100843-09-28 20:23 J -35111211.82 -35111211.65 -35111211.44 0.0135 0.0089
 Jupiter -100842-03-11 04:33 J -35111048.54 -35111048.31 -35111048.08 0.0489 0.0124
 Uranus -100842-10-02 21:06 J -35110842.85 -35110842.62 -35110842.38 0.0136 0.0015
 Uranus -100841-10-06 02:09 J -35110473.65 -35110473.41 -35110473.16 0.0136 0.0036
 Uranus -100840-10-10 04:04 J -35110104.44 -35110104.33 -35110104.18 0.0137 0.0114
 Neptune -100839-08-17 17:01 J -35109792.91 -35109792.79 -35109792.66 0.0088 0.0077

Mars -100838-01-13 15:35 J -35109644.05 -35109643.85 -35109643.64 0.1681 0.0147
 Neptune -100838-08-19 21:49 J -35109425.79 -35109425.59 -35109425.35 0.0088 0.0038
 Neptune -100837-08-21 06:28 J -35109058.48 -35109058.23 -35109057.97 0.0088 0.0015
 Neptune -100836-08-23 16:33 J -35108691.03 -35108690.81 -35108690.57 0.0088 0.0025
 Saturn -100835-02-01 20:23 J -35108528.91 -35108528.65 -35108528.39 0.0282 0.0031
 Neptune -100835-08-25 19:54 J -35108323.86 -35108323.67 -35108323.43 0.0088 0.0048
 Neptune -100834-08-28 09:49 J -35107956.10 -35107956.09 -35107956.03 0.0088 0.0088
 Jupiter -100830-03-16 02:23 J -35106660.61 -35106660.40 -35106660.18 0.0491 0.0254
 Jupiter -100825-09-09 23:16 J -35104655.68 -35104655.53 -35104655.38 0.0539 0.0413
 Saturn -100820-08-12 17:01 J -35102858.03 -35102857.79 -35102857.54 0.0278 0.0031
 Jupiter -100813-09-14 14:09 J -35100268.12 -35100267.91 -35100267.69 0.0537 0.0025
 Saturn -100806-01-27 08:09 J -35097942.29 -35097942.16 -35097942.01 0.0283 0.0232
 Saturn -100805-02-10 09:49 J -35097563.23 -35097563.09 -35097562.92 0.0281 0.0224
 Uranus -100803-03-31 08:52 J -35096783.35 -35096783.13 -35096782.89 0.0143 0.0062
 Uranus -100802-04-05 23:16 J -35096412.80 -35096412.53 -35096412.26 0.0143 0.0012
 Uranus -100801-04-09 22:18 J -35096042.76 -35096042.57 -35096042.35 0.0142 0.0089
 Jupiter -100801-09-19 14:09 J -35095879.94 -35095879.91 -35095879.85 0.0537 0.0525
 Pluto -100794-09-27 11:59 J -35093316.23 -35093316.00 -35093315.77 0.0078 0.0034
 Saturn -100791-08-07 19:54 J -35092270.86 -35092270.67 -35092270.48 0.0276 0.0154
 Saturn -100790-08-20 03:21 J -35091893.45 -35091893.36 -35091893.27 0.0278 0.0256
 Mars -100785-07-24 06:57 J -35090093.41 -35090093.21 -35090093.01 0.1841 0.0104
 Saturn -100776-02-02 20:37 J -35086977.89 -35086977.64 -35086977.39 0.0282 0.0009
 Saturn -100761-08-13 15:06 J -35081307.09 -35081306.87 -35081306.63 0.0277 0.0070
 Mars -100759-01-16 02:23 J -35080786.50 -35080786.40 -35080786.30 0.1684 0.1400
 Jupiter -100759-03-10 17:59 J -35080732.98 -35080732.75 -35080732.51 0.0489 0.0157
 Uranus -100759-09-29 09:21 J -35080530.30 -35080530.11 -35080529.88 0.0135 0.0074
 Uranus -100758-10-03 11:01 J -35080161.27 -35080161.04 -35080160.80 0.0136 0.0023
 Uranus -100757-10-06 14:23 J -35079792.12 -35079791.90 -35079791.66 0.0136 0.0054
 Neptune -100756-02-09 13:54 J -35079666.08 -35079665.92 -35079665.72 0.0089 0.0065
 Uranus -100756-10-10 17:16 J -35079422.91 -35079422.78 -35079422.62 0.0137 0.0106

Neptune -100755-02-11 22:04 J -35079298.81 -35079298.58 -35079298.33 0.0089 0.0037
 Neptune -100754-02-14 20:09 J -35078930.93 -35078930.66 -35078930.39 0.0089 0.0002
 Neptune -100753-02-17 05:30 J -35078563.51 -35078563.27 -35078563.02 0.0089 0.0031
 Neptune -100752-02-19 00:13 J -35078195.65 -35078195.49 -35078195.31 0.0089 0.0069
 Saturn -100747-01-28 08:52 J -35076391.31 -35076391.13 -35076390.94 0.0283 0.0194
 Jupiter -100747-03-15 02:09 J -35076345.63 -35076345.41 -35076345.19 0.0490 0.0203
 Saturn -100746-02-11 06:28 J -35076012.31 -35076012.23 -35076012.12 0.0281 0.0261
 Jupiter -100742-09-09 23:16 J -35074340.61 -35074340.53 -35074340.44 0.0540 0.0495
 Saturn -100732-08-08 23:45 J -35070719.72 -35070719.51 -35070719.28 0.0276 0.0115
 Jupiter -100730-09-15 03:49 J -35069952.56 -35069952.34 -35069952.11 0.0539 0.0027
 Uranus -100720-03-26 17:01 J -35066471.87 -35066471.79 -35066471.71 0.0144 0.0136
 Uranus -100719-03-31 21:35 J -35066101.82 -35066101.60 -35066101.37 0.0143 0.0069
 Uranus -100718-04-06 10:47 J -35065731.32 -35065731.05 -35065730.78 0.0143 0.0018
 Jupiter -100718-09-19 18:42 J -35065564.81 -35065564.72 -35065564.62 0.0537 0.0483
 Saturn -100717-02-05 00:42 J -35065426.71 -35065426.47 -35065426.23 0.0282 0.0049
 Uranus -100717-04-10 10:04 J -35065361.25 -35065361.08 -35065360.89 0.0142 0.0100
 Saturn -100702-08-15 18:28 J -35059755.94 -35059755.73 -35059755.51 0.0277 0.0110
 Saturn -100688-01-29 02:37 J -35054840.60 -35054840.39 -35054840.17 0.0283 0.0156
 Jupiter -100676-03-09 19:40 J -35050417.90 -35050417.68 -35050417.46 0.0489 0.0195
 Uranus -100676-09-25 19:40 J -35050217.70 -35050217.68 -35050217.62 0.0135 0.0133
 Uranus -100675-09-29 21:06 J -35049848.81 -35049848.62 -35049848.40 0.0135 0.0080
 Neptune -100674-08-19 05:45 J -35049525.42 -35049525.26 -35049525.04 0.0088 0.0060
 Uranus -100674-10-04 00:13 J -35049479.72 -35049479.49 -35049479.25 0.0136 0.0007
 Saturn -100673-08-09 22:47 J -35049168.79 -35049168.55 -35049168.31 0.0276 0.0072
 Neptune -100673-08-20 17:45 J -35049157.99 -35049157.76 -35049157.52 0.0088 0.0028
 Uranus -100673-10-07 02:52 J -35049110.62 -35049110.38 -35049110.14 0.0136 0.0044
 Neptune -100672-08-22 20:37 J -35048790.89 -35048790.64 -35048790.38 0.0088 0.0004
 Uranus -100672-10-11 06:57 J -35048741.30 -35048741.21 -35048741.09 0.0137 0.0122
 Neptune -100671-08-25 10:47 J -35048423.26 -35048423.05 -35048422.80 0.0088 0.0037
 Neptune -100670-08-27 11:59 J -35048056.13 -35048056.00 -35048055.81 0.0088 0.0067

Jupiter -100664-03-14 17:30 J -35046030.00 -35046029.77 -35046029.54 0.0490 0.0152
 Saturn -100658-02-06 03:49 J -35043875.57 -35043875.34 -35043875.09 0.0282 0.0088
 Jupiter -100647-09-14 05:45 J -35039637.48 -35039637.26 -35039637.04 0.0538 0.0080
 Saturn -100644-08-04 14:23 J -35038581.97 -35038581.90 -35038581.81 0.0275 0.0257
 Saturn -100643-08-16 23:01 J -35038204.74 -35038204.54 -35038204.34 0.0277 0.0150
 Uranus -100635-04-01 10:04 J -35035420.31 -35035420.08 -35035419.83 0.0144 0.0053
 Jupiter -100635-09-19 06:28 J -35035249.36 -35035249.23 -35035249.10 0.0537 0.0425
 Pluto -100634-03-28 04:04 J -35035059.43 -35035059.33 -35035059.20 0.0066 0.0060
 Uranus -100634-04-06 22:33 J -35035049.83 -35035049.56 -35035049.29 0.0143 0.0021
 Mars -100633-01-11 18:13 J -35034769.91 -35034769.74 -35034769.57 0.1672 0.0446
 Pluto -100633-03-29 04:18 J -35034692.57 -35034692.32 -35034692.05 0.0066 0.0021
 Uranus -100633-04-10 23:01 J -35034679.71 -35034679.54 -35034679.34 0.0142 0.0098
 Saturn -100629-01-30 23:16 J -35033289.75 -35033289.53 -35033289.30 0.0283 0.0118
 Saturn -100614-08-11 20:52 J -35027617.87 -35027617.63 -35027617.38 0.0276 0.0030
 Saturn -100599-02-07 01:40 J -35022324.65 -35022324.43 -35022324.19 0.0282 0.0129
 Jupiter -100593-03-09 10:47 J -35020102.26 -35020102.05 -35020101.84 0.0489 0.0236
 Uranus -100592-09-26 11:30 J -35019536.06 -35019536.02 -35019535.98 0.0135 0.0132
 Neptune -100591-02-11 05:59 J -35019398.46 -35019398.25 -35019398.01 0.0089 0.0049
 Uranus -100591-09-30 11:01 J -35019167.25 -35019167.04 -35019166.81 0.0135 0.0065
 Neptune -100590-02-13 17:30 J -35019031.01 -35019030.77 -35019030.51 0.0089 0.0022
 Uranus -100590-10-04 14:52 J -35018798.11 -35018797.88 -35018797.64 0.0136 0.0014
 Neptune -100589-02-16 10:33 J -35018663.32 -35018663.06 -35018662.78 0.0089 0.0019
 Uranus -100589-10-07 15:49 J -35018429.05 -35018428.84 -35018428.60 0.0136 0.0063
 Neptune -100588-02-18 02:09 J -35018295.63 -35018295.41 -35018295.19 0.0089 0.0045
 Uranus -100588-10-11 21:35 J -35018059.72 -35018059.60 -35018059.46 0.0137 0.0114
 Neptune -100587-02-20 13:54 J -35017927.96 -35017927.92 -35017927.82 0.0089 0.0086
 Saturn -100585-08-05 20:37 J -35017030.78 -35017030.64 -35017030.48 0.0275 0.0214
 Saturn -100584-08-17 23:59 J -35016653.67 -35016653.50 -35016653.32 0.0277 0.0191
 Jupiter -100581-03-13 19:54 J -35015714.91 -35015714.67 -35015714.42 0.0490 0.0105
 Mars -100580-07-20 16:04 J -35015220.96 -35015220.83 -35015220.69 0.1853 0.1282

Saturn -100570-02-01 03:35 J -35011738.58 -35011738.35 -35011738.11 0.0283 0.0075
 Jupiter -100569-03-18 16:33 J -35011326.89 -35011326.81 -35011326.73 0.0490 0.0457
 Jupiter -100564-09-13 12:57 J -35009322.17 -35009321.96 -35009321.75 0.0539 0.0156
 Saturn -100555-08-13 01:11 J -35006066.69 -35006066.45 -35006066.22 0.0276 0.0016
 Mars -100554-01-13 23:30 J -35005912.72 -35005912.52 -35005912.33 0.1675 0.0139
 Uranus -100552-03-27 18:28 J -35005108.86 -35005108.73 -35005108.59 0.0144 0.0125
 Jupiter -100552-09-18 05:59 J -35004934.42 -35004934.25 -35004934.07 0.0538 0.0352
 Uranus -100551-04-02 01:11 J -35004738.68 -35004738.45 -35004738.21 0.0144 0.0058
 Uranus -100550-04-07 12:13 J -35004368.25 -35004367.99 -35004367.71 0.0143 0.0030
 Uranus -100549-04-11 12:57 J -35003998.09 -35003997.96 -35003997.77 0.0142 0.0112
 Pluto -100547-09-30 02:23 J -35003096.55 -35003096.40 -35003096.19 0.0078 0.0055
 Saturn -100541-01-26 02:37 J -35001152.45 -35001152.39 -35001152.33 0.0284 0.0276
 Saturn -100540-02-07 23:59 J -35000773.69 -35000773.50 -35000773.29 0.0282 0.0175
 Saturn -100526-08-07 23:01 J -34995479.73 -34995479.54 -34995479.34 0.0276 0.0168
 Saturn -100525-08-18 23:16 J -34995102.65 -34995102.53 -34995102.40 0.0278 0.0237
 Saturn -100511-02-02 10:04 J -34990187.33 -34990187.08 -34990186.83 0.0283 0.0029
 Jupiter -100510-03-09 12:28 J -34989787.18 -34989786.98 -34989786.77 0.0488 0.0275
 Neptune -100510-08-18 16:47 J -34989624.88 -34989624.80 -34989624.69 0.0088 0.0081
 Neptune -100509-08-19 19:11 J -34989257.91 -34989257.70 -34989257.46 0.0088 0.0041
 Neptune -100508-08-22 10:33 J -34988890.30 -34988890.06 -34988889.81 0.0088 0.0019
 Uranus -100508-09-27 01:25 J -34988854.54 -34988854.44 -34988854.34 0.0135 0.0122
 Neptune -100507-08-24 12:13 J -34988523.23 -34988522.99 -34988522.75 0.0088 0.0022
 Uranus -100507-09-30 23:59 J -34988485.70 -34988485.50 -34988485.27 0.0135 0.0069
 Neptune -100506-08-27 01:40 J -34988155.64 -34988155.43 -34988155.20 0.0088 0.0044
 Uranus -100506-10-05 05:30 J -34988116.51 -34988116.27 -34988116.04 0.0136 0.0004
 Neptune -100505-08-28 06:28 J -34987788.30 -34987788.23 -34987788.15 0.0088 0.0084
 Uranus -100505-10-08 05:30 J -34987747.50 -34987747.27 -34987747.03 0.0136 0.0053
 Uranus -100504-10-12 11:59 J -34987378.05 -34987378.00 -34987377.92 0.0137 0.0131
 Mars -100501-07-23 15:49 J -34986363.04 -34986362.84 -34986362.64 0.1849 0.0036
 Jupiter -100498-03-14 07:40 J -34985399.41 -34985399.18 -34985398.94 0.0489 0.0059

Saturn -100496-08-14 10:33 J -34984515.28 -34984515.06 -34984514.83 0.0277 0.0065
 Jupiter -100486-03-18 19:40 J -34981011.82 -34981011.68 -34981011.53 0.0490 0.0399
 Saturn -100482-01-27 05:01 J -34979601.42 -34979601.29 -34979601.12 0.0284 0.0227
 Saturn -100481-02-10 06:57 J -34979222.35 -34979222.21 -34979222.06 0.0282 0.0224
 Jupiter -100481-09-12 16:33 J -34979007.02 -34979006.81 -34979006.60 0.0540 0.0210
 Mars -100475-01-16 14:52 J -34977054.93 -34977054.88 -34977054.84 0.1678 0.1633
 Jupiter -100469-09-17 15:21 J -34974619.04 -34974618.86 -34974618.68 0.0538 0.0295
 Uranus -100468-03-28 06:57 J -34974427.31 -34974427.21 -34974427.09 0.0144 0.0132
 Uranus -100467-04-02 15:35 J -34974057.09 -34974056.85 -34974056.60 0.0144 0.0039
 Saturn -100467-08-08 23:45 J -34973928.73 -34973928.51 -34973928.29 0.0276 0.0118
 Uranus -100466-04-08 01:40 J -34973686.68 -34973686.43 -34973686.15 0.0143 0.0034
 Uranus -100465-04-12 04:18 J -34973316.46 -34973316.32 -34973316.14 0.0142 0.0112
 Saturn -100452-02-03 13:54 J -34968636.18 -34968635.92 -34968635.66 0.0283 0.0021
 Saturn -100437-08-15 17:59 J -34962963.97 -34962963.75 -34962963.53 0.0277 0.0115
 Mars -100428-01-09 15:06 J -34959894.98 -34959894.87 -34959894.77 0.1665 0.1412
 Neptune -100427-02-10 04:18 J -34959498.47 -34959498.32 -34959498.14 0.0089 0.0068
 Jupiter -100427-03-08 20:23 J -34959471.81 -34959471.65 -34959471.48 0.0488 0.0337
 Neptune -100426-02-12 18:28 J -34959130.95 -34959130.73 -34959130.47 0.0089 0.0042
 Neptune -100425-02-15 12:42 J -34958763.22 -34958762.97 -34958762.71 0.0089 0.0001
 Neptune -100424-02-16 23:01 J -34958395.78 -34958395.54 -34958395.26 0.0089 0.0027
 Uranus -100424-09-27 16:04 J -34958172.91 -34958172.83 -34958172.71 0.0135 0.0121
 Saturn -100423-01-28 16:18 J -34958050.00 -34958049.82 -34958049.62 0.0284 0.0175
 Neptune -100423-02-19 20:37 J -34958027.80 -34958027.64 -34958027.45 0.0089 0.0067
 Uranus -100423-10-01 13:40 J -34957804.14 -34957803.93 -34957803.68 0.0135 0.0054
 Saturn -100422-02-11 19:54 J -34957670.70 -34957670.67 -34957670.61 0.0282 0.0277
 Uranus -100422-10-05 19:54 J -34957434.90 -34957434.67 -34957434.43 0.0136 0.0004
 Uranus -100421-10-08 18:57 J -34957065.91 -34957065.71 -34957065.48 0.0136 0.0073
 Uranus -100420-10-13 02:52 J -34956696.47 -34956696.38 -34956696.27 0.0137 0.0123
 Jupiter -100415-03-13 09:21 J -34955084.36 -34955084.11 -34955083.86 0.0489 0.0006
 Saturn -100408-08-10 06:42 J -34952377.45 -34952377.22 -34952376.99 0.0276 0.0068

Jupiter -100403-03-17 23:30 J -34950696.68 -34950696.52 -34950696.36 0.0490 0.0351
 Jupiter -100398-09-12 21:49 J -34948691.78 -34948691.59 -34948691.41 0.0539 0.0284
 Saturn -100393-02-05 17:59 J -34947085.00 -34947084.75 -34947084.50 0.0283 0.0075
 Pluto -100387-03-30 09:35 J -34944840.36 -34944840.10 -34944839.83 0.0066 0.0018
 Jupiter -100386-09-17 13:11 J -34944304.17 -34944303.95 -34944303.74 0.0539 0.0193
 Uranus -100384-03-28 20:52 J -34943745.80 -34943745.63 -34943745.45 0.0144 0.0111
 Uranus -100383-04-03 06:13 J -34943375.48 -34943375.24 -34943374.99 0.0144 0.0044
 Uranus -100382-04-08 15:21 J -34943005.12 -34943004.86 -34943004.60 0.0143 0.0044
 Uranus -100381-04-12 19:11 J -34942634.82 -34942634.70 -34942634.57 0.0142 0.0124
 Saturn -100379-08-05 19:54 J -34941789.78 -34941789.67 -34941789.54 0.0276 0.0236
 Saturn -100378-08-17 21:21 J -34941412.80 -34941412.61 -34941412.41 0.0277 0.0167
 Saturn -100364-01-30 08:23 J -34936498.37 -34936498.15 -34936497.92 0.0283 0.0117
 Mars -100349-01-13 00:13 J -34931037.68 -34931037.49 -34931037.30 0.1668 0.0011
 Saturn -100349-08-11 18:57 J -34930825.94 -34930825.71 -34930825.48 0.0276 0.0017
 Neptune -100345-08-19 08:37 J -34929357.29 -34929357.14 -34929356.94 0.0088 0.0064
 Jupiter -100344-03-07 22:18 J -34929156.71 -34929156.57 -34929156.42 0.0488 0.0392
 Neptune -100344-08-21 11:16 J -34928990.25 -34928990.03 -34928989.80 0.0088 0.0033
 Neptune -100343-08-23 23:59 J -34928622.76 -34928622.50 -34928622.25 0.0088 0.0001
 Neptune -100342-08-26 05:30 J -34928255.49 -34928255.27 -34928255.03 0.0088 0.0030
 Neptune -100341-08-27 13:40 J -34927888.11 -34927887.93 -34927887.74 0.0088 0.0062
 Uranus -100340-09-28 06:28 J -34927491.34 -34927491.23 -34927491.07 0.0135 0.0111
 Uranus -100339-10-02 03:35 J -34927122.56 -34927122.35 -34927122.10 0.0135 0.0058
 Uranus -100338-10-06 11:01 J -34926753.28 -34926753.04 -34926752.80 0.0136 0.0015
 Uranus -100337-10-09 08:52 J -34926384.34 -34926384.13 -34926383.90 0.0136 0.0064
 Saturn -100334-02-07 05:01 J -34925533.50 -34925533.29 -34925533.06 0.0282 0.0129
 Jupiter -100332-03-12 13:11 J -34924769.18 -34924768.95 -34924768.72 0.0489 0.0061
 Jupiter -100320-03-17 08:09 J -34920381.35 -34920381.16 -34920380.96 0.0490 0.0298
 Saturn -100320-08-07 01:25 J -34920238.61 -34920238.44 -34920238.24 0.0276 0.0183
 Saturn -100319-08-19 03:35 J -34919861.48 -34919861.35 -34919861.20 0.0278 0.0222
 Jupiter -100315-09-11 17:30 J -34918376.93 -34918376.77 -34918376.61 0.0540 0.0387

Saturn -100305-02-01 23:01 J -34914946.79 -34914946.54 -34914946.29 0.0283 0.0060
 Jupiter -100303-09-16 13:25 J -34913989.15 -34913988.94 -34913988.73 0.0539 0.0116
 Pluto -100301-09-30 05:45 J -34913244.50 -34913244.26 -34913244.00 0.0078 0.0009
 Uranus -100300-03-29 07:40 J -34913064.32 -34913064.18 -34913064.02 0.0144 0.0120
 Uranus -100299-04-03 19:11 J -34912693.94 -34912693.70 -34912693.44 0.0144 0.0026
 Uranus -100298-04-09 03:06 J -34912323.62 -34912323.37 -34912323.10 0.0143 0.0046
 Uranus -100297-04-13 08:23 J -34911953.26 -34911953.15 -34911953.01 0.0142 0.0124
 Mars -100296-07-21 02:09 J -34911489.55 -34911489.41 -34911489.27 0.1860 0.1273
 Saturn -100290-08-14 06:57 J -34909274.44 -34909274.21 -34909273.97 0.0276 0.0037
 Saturn -100276-01-25 18:13 J -34904360.82 -34904360.74 -34904360.64 0.0284 0.0263
 Saturn -100275-02-08 21:49 J -34903981.76 -34903981.59 -34903981.40 0.0282 0.0187
 Mars -100270-01-15 02:52 J -34902180.55 -34902180.38 -34902180.21 0.1670 0.0538
 Neptune -100262-02-11 23:59 J -34899230.70 -34899230.50 -34899230.29 0.0089 0.0054
 Neptune -100261-02-14 08:37 J -34898863.39 -34898863.14 -34898862.88 0.0089 0.0025
 Jupiter -100261-03-07 01:25 J -34898841.52 -34898841.44 -34898841.35 0.0488 0.0453
 Saturn -100261-08-08 06:57 J -34898687.42 -34898687.21 -34898686.99 0.0276 0.0131
 Neptune -100260-02-16 06:42 J -34898495.47 -34898495.22 -34898494.95 0.0089 0.0014
 Saturn -100260-08-20 14:37 J -34898309.92 -34898309.89 -34898309.83 0.0278 0.0273
 Neptune -100259-02-18 14:23 J -34898128.12 -34898127.90 -34898127.65 0.0089 0.0041
 Neptune -100258-02-21 11:59 J -34897760.09 -34897760.00 -34897759.87 0.0089 0.0081
 Uranus -100256-09-28 21:35 J -34896809.72 -34896809.60 -34896809.44 0.0134 0.0109
 Uranus -100255-10-02 17:59 J -34896440.98 -34896440.75 -34896440.51 0.0135 0.0042
 Uranus -100254-10-07 01:54 J -34896071.66 -34896071.42 -34896071.19 0.0136 0.0009
 Uranus -100253-10-09 23:16 J -34895702.73 -34895702.53 -34895702.33 0.0136 0.0084
 Uranus -100252-10-14 08:23 J -34895333.20 -34895333.15 -34895333.08 0.0137 0.0132
 Jupiter -100249-03-11 16:04 J -34894454.07 -34894453.83 -34894453.59 0.0488 0.0138
 Saturn -100246-02-03 10:33 J -34893395.32 -34893395.06 -34893394.80 0.0283 0.0003
 Jupiter -100237-03-16 00:28 J -34890066.69 -34890066.48 -34890066.27 0.0489 0.0225
 Jupiter -100232-09-10 19:40 J -34888061.80 -34888061.68 -34888061.57 0.0540 0.0457
 Saturn -100231-08-15 15:21 J -34887723.09 -34887722.86 -34887722.62 0.0277 0.0087

Mars -100223-01-08 00:28 J -34885020.51 -34885020.48 -34885020.45 0.1657 0.1626
 Jupiter -100220-09-15 21:21 J -34883673.84 -34883673.61 -34883673.38 0.0539 0.0036
 Saturn -100217-01-28 12:28 J -34882809.14 -34882808.98 -34882808.81 0.0284 0.0202
 Mars -100217-07-23 21:49 J -34882631.76 -34882631.59 -34882631.41 0.1856 0.0157
 Saturn -100216-02-10 15:06 J -34882429.98 -34882429.87 -34882429.74 0.0282 0.0243
 Uranus -100216-03-29 19:40 J -34882382.86 -34882382.68 -34882382.46 0.0144 0.0099
 Uranus -100215-04-04 08:23 J -34882012.39 -34882012.15 -34882011.90 0.0144 0.0032
 Uranus -100214-04-09 14:52 J -34881642.12 -34881641.88 -34881641.61 0.0143 0.0056
 Uranus -100213-04-13 21:49 J -34881271.66 -34881271.59 -34881271.49 0.0142 0.0134
 Jupiter -100208-09-20 05:16 J -34879286.41 -34879286.28 -34879286.15 0.0538 0.0432
 Saturn -100202-08-10 16:47 J -34877136.02 -34877135.80 -34877135.57 0.0276 0.0080
 Saturn -100187-02-04 22:04 J -34871843.83 -34871843.58 -34871843.33 0.0283 0.0061
 Neptune -100181-08-18 09:35 J -34869457.15 -34869457.10 -34869457.04 0.0088 0.0086
 Neptune -100180-08-20 21:21 J -34869089.82 -34869089.61 -34869089.38 0.0088 0.0046
 Neptune -100179-08-23 04:47 J -34868722.53 -34868722.30 -34868722.06 0.0088 0.0024
 Neptune -100178-08-25 11:01 J -34868355.29 -34868355.04 -34868354.78 0.0088 0.0016
 Neptune -100177-08-26 23:01 J -34867987.75 -34867987.54 -34867987.31 0.0088 0.0039
 Neptune -100176-08-29 00:57 J -34867620.55 -34867620.46 -34867620.32 0.0088 0.0079
 Saturn -100173-08-04 19:11 J -34866548.77 -34866548.70 -34866548.59 0.0275 0.0256
 Saturn -100172-08-16 20:23 J -34866171.86 -34866171.65 -34866171.43 0.0277 0.0140
 Uranus -100172-09-29 13:25 J -34866128.10 -34866127.94 -34866127.77 0.0134 0.0098
 Uranus -100171-10-03 08:37 J -34865759.36 -34865759.14 -34865758.89 0.0135 0.0045
 Uranus -100170-10-07 17:01 J -34865390.02 -34865389.79 -34865389.55 0.0135 0.0027
 Uranus -100169-10-10 13:25 J -34865021.14 -34865020.94 -34865020.73 0.0136 0.0074
 Jupiter -100166-03-11 12:13 J -34864139.20 -34864138.99 -34864138.77 0.0488 0.0204
 Saturn -100158-01-30 05:01 J -34861257.50 -34861257.29 -34861257.07 0.0284 0.0143
 Jupiter -100154-03-16 11:16 J -34859751.25 -34859751.03 -34859750.80 0.0489 0.0177
 Mars -100144-01-10 02:52 J -34856163.52 -34856163.38 -34856163.24 0.1660 0.1131
 Saturn -100143-08-12 05:16 J -34855584.52 -34855584.28 -34855584.05 0.0277 0.0028
 Pluto -100141-03-30 16:04 J -34854987.83 -34854987.83 -34854987.81 0.0066 0.0066

Pluto -100140-04-01 10:47 J -34854621.31 -34854621.05 -34854620.77 0.0066 0.0017
 Jupiter -100137-09-14 10:18 J -34853359.29 -34853359.07 -34853358.84 0.0539 0.0075
 Uranus -100132-03-30 06:57 J -34851701.37 -34851701.21 -34851701.02 0.0144 0.0109
 Uranus -100131-04-04 21:21 J -34851330.86 -34851330.61 -34851330.35 0.0144 0.0014
 Uranus -100130-04-10 02:52 J -34850960.63 -34850960.38 -34850960.12 0.0143 0.0055
 Uranus -100129-04-14 10:47 J -34850590.11 -34850590.05 -34850589.93 0.0142 0.0134
 Saturn -100128-02-06 13:25 J -34850292.15 -34850291.94 -34850291.71 0.0283 0.0119
 Jupiter -100125-09-19 14:37 J -34848971.06 -34848970.89 -34848970.72 0.0539 0.0349
 Saturn -100114-08-06 23:16 J -34844997.69 -34844997.53 -34844997.36 0.0275 0.0203
 Saturn -100113-08-18 03:49 J -34844620.50 -34844620.34 -34844620.16 0.0277 0.0190
 Saturn -100099-01-31 14:23 J -34839706.15 -34839705.90 -34839705.65 0.0284 0.0085
 Neptune -100098-02-10 18:13 J -34839330.86 -34839330.74 -34839330.55 0.0089 0.0072
 Neptune -100097-02-13 16:47 J -34838963.01 -34838962.80 -34838962.56 0.0089 0.0047
 Neptune -100096-02-15 01:25 J -34838595.69 -34838595.44 -34838595.18 0.0089 0.0005
 Neptune -100095-02-17 21:49 J -34838227.84 -34838227.59 -34838227.32 0.0089 0.0022
 Neptune -100094-02-20 08:37 J -34837860.29 -34837860.14 -34837859.93 0.0089 0.0063
 Uranus -100088-09-30 04:18 J -34835446.47 -34835446.32 -34835446.13 0.0134 0.0097
 Uranus -100087-10-03 23:30 J -34835077.75 -34835077.52 -34835077.27 0.0135 0.0030
 Uranus -100086-10-08 08:09 J -34834708.40 -34834708.16 -34834707.92 0.0136 0.0020
 Uranus -100085-10-11 04:04 J -34834339.49 -34834339.33 -34834339.14 0.0136 0.0094
 Saturn -100084-08-13 12:42 J -34834033.22 -34834032.97 -34834032.73 0.0277 0.0021
 Jupiter -100083-03-10 23:45 J -34833823.71 -34833823.51 -34833823.30 0.0488 0.0262
 Jupiter -100071-03-15 04:18 J -34829436.56 -34829436.32 -34829436.08 0.0489 0.0107
 Saturn -100070-01-26 01:54 J -34829119.48 -34829119.42 -34829119.34 0.0284 0.0271
 Saturn -100069-02-09 05:30 J -34828740.46 -34828740.27 -34828740.07 0.0283 0.0173
 Mars -100065-01-13 12:57 J -34827306.16 -34827305.96 -34827305.75 0.1663 0.0292
 Saturn -100055-08-08 05:30 J -34823446.46 -34823446.27 -34823446.07 0.0275 0.0155
 Saturn -100054-08-20 14:37 J -34823069.01 -34823068.89 -34823068.78 0.0277 0.0238
 Jupiter -100054-09-14 22:47 J -34823043.76 -34823043.55 -34823043.33 0.0540 0.0142
 Pluto -100054-10-03 11:59 J -34823025.18 -34823025.00 -34823024.77 0.0078 0.0047

Uranus -100048-03-30 20:37 J -34821019.83 -34821019.64 -34821019.40 0.0144 0.0088
 Uranus -100047-04-05 11:45 J -34820649.26 -34820649.01 -34820648.76 0.0144 0.0021
 Uranus -100046-04-10 15:49 J -34820279.06 -34820278.84 -34820278.58 0.0143 0.0067
 Uranus -100045-04-15 01:40 J -34819908.43 -34819908.43 -34819908.41 0.0143 0.0142
 Jupiter -100042-09-19 14:37 J -34818656.09 -34818655.89 -34818655.70 0.0539 0.0277
 Saturn -100040-02-01 19:54 J -34818154.92 -34818154.67 -34818154.42 0.0284 0.0030
 Saturn -100025-08-14 12:57 J -34812482.20 -34812481.96 -34812481.72 0.0277 0.0068
 Neptune -100016-08-20 02:52 J -34809189.52 -34809189.38 -34809189.21 0.0088 0.0068
 Neptune -100015-08-22 08:52 J -34808822.35 -34808822.13 -34808821.89 0.0088 0.0039
 Neptune -100014-08-24 22:33 J -34808454.81 -34808454.56 -34808454.32 0.0088 0.0004
 Neptune -100013-08-26 00:13 J -34808087.73 -34808087.49 -34808087.24 0.0088 0.0024
 Mars -100012-07-20 04:33 J -34807759.37 -34807759.31 -34807759.25 0.1867 0.1776
 Neptune -100012-08-28 15:06 J -34807720.05 -34807719.87 -34807719.67 0.0088 0.0057
 Saturn -100011-01-27 13:40 J -34807568.08 -34807567.93 -34807567.77 0.0284 0.0221
 Neptune -100011-08-30 16:18 J -34807352.85 -34807352.82 -34807352.72 0.0088 0.0086
 Saturn -100010-02-10 14:23 J -34807189.05 -34807188.90 -34807188.74 0.0282 0.0222
 Uranus -100004-09-30 20:37 J -34804764.83 -34804764.64 -34804764.45 0.0134 0.0085
 Uranus -100003-10-04 14:52 J -34804396.11 -34804395.88 -34804395.63 0.0135 0.0033
 Uranus -100002-10-08 23:30 J -34804026.75 -34804026.52 -34804026.28 0.0136 0.0039
 Uranus -100001-10-11 18:57 J -34803657.88 -34803657.71 -34803657.50 0.0136 0.0085

100TH MILLENNIUM BCE

This is a list of transits of Moon in the 100th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-100000-03-09	19:25 J	-34803508.87	-34803508.69	-34803508.50	0.0487	0.0322	
Saturn	-99996-08-09	14:52 J	-34801895.09	-34801894.88	-34801894.66	0.0275	0.0109	
Jupiter	-99988-03-14	15:21 J	-34799121.10	-34799120.86	-34799120.63	0.0488	0.0064	
Mars	-99986-01-16	03:49 J	-34798448.50	-34798448.34	-34798448.17	0.1666	0.0936	
Saturn	-99981-02-04	03:35 J	-34796603.60	-34796603.35	-34796603.11	0.0284	0.0017	
Jupiter	-99976-03-19	03:49 J	-34794733.41	-34794733.34	-34794733.26	0.0490	0.0467	
Jupiter	-99971-09-13	19:54 J	-34792728.88	-34792728.67	-34792728.46	0.0540	0.0222	
Saturn	-99966-08-16	13:11 J	-34790931.17	-34790930.95	-34790930.73	0.0277	0.0112	
Uranus	-99964-03-31	09:49 J	-34790338.27	-34790338.09	-34790337.87	0.0144	0.0095	
Uranus	-99963-04-06	01:54 J	-34789967.67	-34789967.42	-34789967.16	0.0144	0.0003	
Uranus	-99962-04-11	05:01 J	-34789597.52	-34789597.29	-34789597.03	0.0143	0.0066	
Jupiter	-99959-09-18	19:25 J	-34788340.89	-34788340.69	-34788340.48	0.0539	0.0190	
Saturn	-99952-01-28	18:28 J	-34786016.92	-34786016.73	-34786016.52	0.0284	0.0176	
Saturn	-99951-02-11	15:21 J	-34785637.94	-34785637.86	-34785637.77	0.0282	0.0267	
Mars	-99939-01-09	10:18 J	-34781288.21	-34781288.07	-34781287.93	0.1653	0.1085	
Saturn	-99937-08-10	21:21 J	-34780343.84	-34780343.61	-34780343.38	0.0275	0.0065	
Neptune	-99933-02-12	11:45 J	-34779063.18	-34779063.01	-34779062.80	0.0089	0.0060	
Mars	-99933-07-23	23:30 J	-34778900.73	-34778900.52	-34778900.31	0.1862	0.0171	
Neptune	-99932-02-14	06:28 J	-34778695.48	-34778695.23	-34778694.97	0.0089	0.0029	
Neptune	-99931-02-16	19:54 J	-34778327.92	-34778327.67	-34778327.41	0.0089	0.0008	
Neptune	-99930-02-19	10:18 J	-34777960.30	-34777960.07	-34777959.80	0.0089	0.0037	
Neptune	-99929-02-22	04:33 J	-34777592.44	-34777592.31	-34777592.17	0.0089	0.0075	
Saturn	-99922-02-05	11:59 J	-34775052.23	-34775052.00	-34775051.76	0.0284	0.0062	
Uranus	-99920-10-01	11:01 J	-34774083.21	-34774083.04	-34774082.83	0.0134	0.0084	
Uranus	-99919-10-05	05:30 J	-34773714.50	-34773714.27	-34773714.02	0.0135	0.0018	
Uranus	-99918-10-09	14:23 J	-34773345.13	-34773344.90	-34773344.66	0.0136	0.0031	
Jupiter	-99917-03-09	08:23 J	-34773193.30	-34773193.15	-34773192.99	0.0487	0.0366	

Uranus -99917-10-12 09:49 J -34772976.23 -34772976.09 -34772975.92 0.0136 0.0104
 Saturn -99908-08-05 10:04 J -34769757.19 -34769757.08 -34769756.96 0.0275 0.0241
 Saturn -99907-08-17 17:59 J -34769379.94 -34769379.75 -34769379.55 0.0277 0.0151
 Jupiter -99905-03-13 19:11 J -34768805.95 -34768805.70 -34768805.44 0.0488 0.0025
 Pluto -99894-04-02 10:18 J -34764769.25 -34764769.07 -34764768.84 0.0066 0.0042
 Saturn -99893-01-30 16:18 J -34764466.05 -34764465.82 -34764465.59 0.0284 0.0133
 Jupiter -99893-03-18 09:35 J -34764418.21 -34764418.10 -34764417.98 0.0489 0.0421
 Pluto -99893-04-03 08:52 J -34764402.29 -34764402.13 -34764401.92 0.0067 0.0050
 Jupiter -99888-09-13 02:52 J -34762413.56 -34762413.38 -34762413.20 0.0541 0.0303
 Uranus -99880-04-01 00:42 J -34759656.69 -34759656.47 -34759656.23 0.0144 0.0072
 Uranus -99879-04-06 17:01 J -34759286.05 -34759285.79 -34759285.53 0.0144 0.0008
 Uranus -99878-04-11 19:40 J -34758915.90 -34758915.68 -34758915.45 0.0143 0.0079
 Saturn -99878-08-12 21:06 J -34758792.87 -34758792.62 -34758792.37 0.0275 0.0026
 Jupiter -99876-09-18 01:11 J -34758025.68 -34758025.45 -34758025.22 0.0540 0.0125
 Saturn -99863-02-06 16:18 J -34753501.05 -34753500.82 -34753500.58 0.0284 0.0103
 Mars -99860-01-11 11:16 J -34752431.20 -34752431.03 -34752430.87 0.1656 0.0631
 Neptune -99851-08-21 19:54 J -34748921.85 -34748921.67 -34748921.45 0.0088 0.0052
 Neptune -99850-08-23 22:18 J -34748554.81 -34748554.57 -34748554.34 0.0088 0.0029
 Saturn -99849-08-06 12:42 J -34748206.11 -34748205.97 -34748205.80 0.0275 0.0203
 Neptune -99849-08-25 12:57 J -34748187.20 -34748186.96 -34748186.70 0.0088 0.0012
 Saturn -99848-08-18 22:18 J -34747828.74 -34747828.57 -34747828.40 0.0276 0.0189
 Neptune -99848-08-27 15:49 J -34747820.06 -34747819.84 -34747819.61 0.0088 0.0034
 Neptune -99847-08-30 03:21 J -34747452.47 -34747452.36 -34747452.19 0.0088 0.0074
 Uranus -99837-09-27 18:28 J -34743770.76 -34743770.73 -34743770.66 0.0134 0.0131
 Uranus -99836-10-02 02:23 J -34743401.60 -34743401.40 -34743401.19 0.0134 0.0072
 Uranus -99835-10-05 20:52 J -34743032.87 -34743032.63 -34743032.39 0.0135 0.0020
 Saturn -99834-01-31 14:23 J -34742915.12 -34742914.90 -34742914.66 0.0284 0.0095
 Jupiter -99834-03-09 12:28 J -34742878.12 -34742877.98 -34742877.84 0.0487 0.0402
 Uranus -99834-10-10 05:01 J -34742663.51 -34742663.29 -34742663.05 0.0135 0.0050
 Uranus -99833-10-13 00:42 J -34742294.63 -34742294.47 -34742294.28 0.0136 0.0095

Jupiter -99822-03-14 03:49 J -34738490.57 -34738490.34 -34738490.10 0.0488 0.0013
 Saturn -99819-08-13 18:57 J -34737241.96 -34737241.71 -34737241.47 0.0275 0.0017
 Jupiter -99810-03-18 20:37 J -34734102.80 -34734102.64 -34734102.48 0.0489 0.0377
 Pluto -99808-10-03 12:13 J -34733173.18 -34733172.99 -34733172.76 0.0078 0.0040
 Jupiter -99805-09-12 11:30 J -34732098.19 -34732098.02 -34732097.84 0.0541 0.0355
 Saturn -99804-02-07 13:25 J -34731950.16 -34731949.94 -34731949.70 0.0284 0.0142
 Uranus -99796-04-01 12:13 J -34728975.19 -34728974.99 -34728974.76 0.0144 0.0082
 Uranus -99795-04-07 05:16 J -34728604.54 -34728604.28 -34728604.02 0.0144 0.0011
 Uranus -99794-04-12 06:57 J -34728234.44 -34728234.21 -34728233.98 0.0143 0.0077
 Jupiter -99793-09-17 07:11 J -34727710.41 -34727710.20 -34727709.98 0.0540 0.0063
 Saturn -99790-08-08 17:45 J -34726654.95 -34726654.76 -34726654.57 0.0275 0.0162
 Saturn -99789-08-19 21:21 J -34726277.75 -34726277.61 -34726277.46 0.0276 0.0223
 Mars -99781-01-14 09:49 J -34723574.26 -34723574.09 -34723573.92 0.1658 0.0645
 Jupiter -99781-09-22 08:09 J -34723322.18 -34723322.16 -34723322.13 0.0539 0.0534
 Saturn -99775-02-01 17:30 J -34721364.00 -34721363.77 -34721363.53 0.0284 0.0055
 Neptune -99769-02-11 17:45 J -34719162.90 -34719162.76 -34719162.61 0.0089 0.0075
 Neptune -99768-02-13 08:09 J -34718795.35 -34718795.16 -34718794.93 0.0089 0.0051
 Neptune -99767-02-15 19:54 J -34718427.93 -34718427.67 -34718427.39 0.0089 0.0009
 Neptune -99766-02-18 15:35 J -34718060.09 -34718059.85 -34718059.59 0.0089 0.0017
 Neptune -99765-02-21 00:13 J -34717692.67 -34717692.49 -34717692.27 0.0089 0.0059
 Neptune -99764-02-22 22:18 J -34717324.63 -34717324.57 -34717324.46 0.0089 0.0084
 Saturn -99760-08-14 20:23 J -34715690.87 -34715690.65 -34715690.41 0.0275 0.0055
 Uranus -99753-09-28 09:06 J -34713089.19 -34713089.12 -34713089.03 0.0134 0.0126
 Uranus -99752-10-02 16:04 J -34712720.03 -34712719.83 -34712719.61 0.0134 0.0071
 Jupiter -99751-03-08 21:49 J -34712562.68 -34712562.59 -34712562.48 0.0487 0.0441
 Uranus -99751-10-06 11:01 J -34712351.29 -34712351.04 -34712350.80 0.0135 0.0006
 Uranus -99750-10-10 19:11 J -34711981.93 -34711981.70 -34711981.46 0.0135 0.0041
 Uranus -99749-10-13 14:52 J -34711612.99 -34711612.88 -34711612.73 0.0136 0.0114
 Saturn -99746-01-26 12:28 J -34710778.10 -34710777.98 -34710777.86 0.0285 0.0253
 Saturn -99745-02-09 10:18 J -34710399.26 -34710399.07 -34710398.88 0.0283 0.0182

Jupiter -99739-03-13 14:52 J -34708175.13 -34708174.88 -34708174.63 0.0488 0.0040
 Saturn -99731-08-09 18:56 J -34705103.93 -34705103.71 -34705103.48 0.0275 0.0121
 Saturn -99730-08-21 17:59 J -34704726.83 -34704726.75 -34704726.67 0.0276 0.0260
 Jupiter -99727-03-17 23:59 J -34703787.67 -34703787.50 -34703787.33 0.0489 0.0340
 Jupiter -99722-09-12 15:35 J -34701782.97 -34701782.85 -34701782.71 0.0541 0.0432
 Saturn -99716-02-02 20:23 J -34699812.90 -34699812.65 -34699812.40 0.0284 0.0015
 Uranus -99712-04-02 00:28 J -34698293.70 -34698293.48 -34698293.23 0.0144 0.0061
 Uranus -99711-04-07 17:44 J -34697923.03 -34697922.76 -34697922.50 0.0144 0.0003
 Uranus -99710-04-12 18:28 J -34697552.92 -34697552.73 -34697552.50 0.0143 0.0090
 Jupiter -99710-09-17 13:54 J -34697395.15 -34697394.92 -34697394.69 0.0541 0.0020
 Mars -99702-01-16 15:06 J -34694717.00 -34694716.87 -34694716.73 0.1661 0.1214
 Saturn -99701-08-16 02:23 J -34694139.61 -34694139.40 -34694139.17 0.0275 0.0096
 Jupiter -99698-09-22 05:30 J -34693007.37 -34693007.27 -34693007.15 0.0540 0.0470
 Saturn -99687-01-27 10:18 J -34689227.23 -34689227.07 -34689226.89 0.0285 0.0210
 Neptune -99687-08-20 20:23 J -34689021.78 -34689021.65 -34689021.48 0.0088 0.0071
 Saturn -99686-02-10 13:11 J -34688848.10 -34688847.95 -34688847.80 0.0283 0.0221
 Neptune -99686-08-23 11:44 J -34688654.22 -34688654.01 -34688653.78 0.0088 0.0044
 Neptune -99685-08-24 15:35 J -34688287.09 -34688286.85 -34688286.60 0.0088 0.0009
 Neptune -99684-08-27 02:23 J -34687919.65 -34687919.40 -34687919.14 0.0088 0.0018
 Neptune -99683-08-29 09:49 J -34687552.26 -34687552.09 -34687551.88 0.0088 0.0054
 Neptune -99682-08-31 15:35 J -34687184.94 -34687184.85 -34687184.72 0.0088 0.0080
 Saturn -99672-08-10 16:04 J -34683553.07 -34683552.83 -34683552.59 0.0275 0.0078
 Uranus -99669-09-28 23:30 J -34682407.61 -34682407.52 -34682407.39 0.0134 0.0119
 Jupiter -99668-03-08 09:20 J -34682247.17 -34682247.11 -34682247.04 0.0487 0.0469
 Uranus -99668-10-03 06:28 J -34682038.43 -34682038.23 -34682037.99 0.0134 0.0061
 Uranus -99667-10-07 01:40 J -34681669.67 -34681669.43 -34681669.19 0.0135 0.0009
 Uranus -99666-10-11 09:06 J -34681300.33 -34681300.12 -34681299.88 0.0135 0.0060
 Uranus -99665-10-14 05:44 J -34680931.41 -34680931.26 -34680931.11 0.0136 0.0104
 Saturn -99657-02-04 18:13 J -34678262.00 -34678261.74 -34678261.48 0.0284 0.0025
 Jupiter -99656-03-12 18:42 J -34677859.96 -34677859.72 -34677859.49 0.0487 0.0068

Mars	-99655-01-10 01:25 J	-34677556.62	-34677556.44	-34677556.26	0.1649	0.0755
Mars	-99649-07-23 01:40 J	-34675170.63	-34675170.43	-34675170.23	0.1870	0.0119
Pluto	-99647-04-03 23:44 J	-34674550.75	-34674550.51	-34674550.25	0.0066	0.0025
Pluto	-99646-04-05 23:44 J	-34674183.65	-34674183.51	-34674183.34	0.0067	0.0055
Jupiter	-99644-03-17 16:32 J	-34673472.00	-34673471.81	-34673471.62	0.0488	0.0302
Saturn	-99643-08-06 01:11 J	-34672965.55	-34672965.45	-34672965.33	0.0274	0.0239
Saturn	-99642-08-18 07:25 J	-34672588.40	-34672588.19	-34672587.98	0.0275	0.0138
Jupiter	-99639-09-11 21:49 J	-34671467.65	-34671467.59	-34671467.52	0.0542	0.0517
Uranus	-99629-03-28 06:42 J	-34667982.27	-34667982.22	-34667982.12	0.0145	0.0139
Saturn	-99628-01-28 16:18 J	-34667676.01	-34667675.82	-34667675.62	0.0285	0.0168
Uranus	-99628-04-02 10:47 J	-34667612.27	-34667612.05	-34667611.82	0.0144	0.0072
Saturn	-99627-02-11 19:54 J	-34667296.75	-34667296.67	-34667296.57	0.0283	0.0262
Uranus	-99627-04-08 03:20 J	-34667241.62	-34667241.36	-34667241.09	0.0144	0.0020
Jupiter	-99627-09-16 16:32 J	-34667080.03	-34667079.81	-34667079.59	0.0541	0.0076
Uranus	-99626-04-13 04:04 J	-34666871.54	-34666871.33	-34666871.11	0.0143	0.0083
Jupiter	-99615-09-21 21:49 J	-34662691.72	-34662691.59	-34662691.45	0.0539	0.0425
Saturn	-99613-08-11 17:44 J	-34662001.99	-34662001.76	-34662001.52	0.0275	0.0035
Neptune	-99604-02-12 07:54 J	-34658895.36	-34658895.17	-34658894.98	0.0089	0.0063
Neptune	-99603-02-15 04:04 J	-34658527.55	-34658527.33	-34658527.07	0.0089	0.0032
Neptune	-99602-02-17 11:59 J	-34658160.26	-34658160.00	-34658159.73	0.0089	0.0003
Neptune	-99601-02-20 09:35 J	-34657792.33	-34657792.10	-34657791.84	0.0089	0.0034
Neptune	-99600-02-21 17:44 J	-34657424.90	-34657424.76	-34657424.58	0.0089	0.0071
Saturn	-99598-02-05 15:35 J	-34656711.10	-34656710.85	-34656710.60	0.0284	0.0068
Uranus	-99585-09-29 13:25 J	-34651726.04	-34651725.94	-34651725.80	0.0134	0.0115
Saturn	-99584-08-07 06:42 J	-34651414.38	-34651414.22	-34651414.04	0.0274	0.0193
Uranus	-99584-10-03 19:40 J	-34651356.89	-34651356.68	-34651356.45	0.0134	0.0060
Saturn	-99583-08-19 07:40 J	-34651037.36	-34651037.18	-34651036.99	0.0276	0.0180
Uranus	-99583-10-07 15:35 J	-34650988.09	-34650987.85	-34650987.61	0.0135	0.0004
Uranus	-99582-10-11 22:47 J	-34650618.78	-34650618.55	-34650618.31	0.0135	0.0051
Uranus	-99581-10-14 19:40 J	-34650249.76	-34650249.68	-34650249.56	0.0136	0.0123

Mars -99576-01-12 14:37 J -34648699.08 -34648698.89 -34648698.69 0.1652 0.0219
 Jupiter -99573-03-12 07:54 J -34647544.40 -34647544.17 -34647543.93 0.0487 0.0108
 Mars -99570-07-27 14:37 J -34646311.98 -34646311.89 -34646311.80 0.1865 0.1687
 Saturn -99569-01-31 01:11 J -34646124.67 -34646124.45 -34646124.23 0.0285 0.0121
 Jupiter -99561-03-16 14:23 J -34643157.11 -34643156.90 -34643156.69 0.0488 0.0246
 Pluto -99561-10-05 05:16 J -34642954.51 -34642954.28 -34642954.04 0.0078 0.0022
 Saturn -99554-08-14 02:37 J -34640450.62 -34640450.39 -34640450.16 0.0275 0.0009
 Uranus -99545-03-28 17:44 J -34637300.81 -34637300.76 -34637300.69 0.0145 0.0141
 Uranus -99544-04-02 22:04 J -34636930.80 -34636930.58 -34636930.32 0.0145 0.0054
 Jupiter -99544-09-16 04:18 J -34636764.53 -34636764.32 -34636764.11 0.0541 0.0144
 Uranus -99543-04-08 14:37 J -34636560.16 -34636559.89 -34636559.62 0.0144 0.0009
 Uranus -99542-04-13 15:06 J -34636190.05 -34636189.87 -34636189.65 0.0143 0.0096
 Saturn -99539-02-06 21:06 J -34635159.84 -34635159.62 -34635159.39 0.0284 0.0111
 Jupiter -99532-09-20 13:40 J -34632377.11 -34632376.93 -34632376.75 0.0540 0.0327
 Saturn -99525-08-08 08:37 J -34629863.35 -34629863.14 -34629862.92 0.0275 0.0147
 Saturn -99524-08-20 09:49 J -34629486.22 -34629486.09 -34629485.94 0.0276 0.0226
 Neptune -99522-08-22 14:52 J -34628754.07 -34628753.88 -34628753.69 0.0088 0.0056
 Neptune -99521-08-24 00:56 J -34628386.68 -34628386.46 -34628386.20 0.0088 0.0033
 Neptune -99520-08-26 11:16 J -34628019.27 -34628019.03 -34628018.79 0.0088 0.0007
 Neptune -99519-08-28 16:04 J -34627652.07 -34627651.83 -34627651.59 0.0088 0.0031
 Neptune -99518-08-31 05:30 J -34627284.41 -34627284.27 -34627284.11 0.0088 0.0070
 Saturn -99510-02-01 06:56 J -34624573.45 -34624573.21 -34624572.95 0.0285 0.0074
 Uranus -99501-09-30 04:04 J -34621044.45 -34621044.33 -34621044.17 0.0134 0.0108
 Uranus -99500-10-04 09:49 J -34620675.31 -34620675.09 -34620674.85 0.0134 0.0051
 Uranus -99499-10-08 06:13 J -34620306.47 -34620306.24 -34620306.00 0.0135 0.0002
 Uranus -99498-10-12 12:28 J -34619937.19 -34619936.98 -34619936.76 0.0135 0.0068
 Mars -99497-01-15 21:06 J -34619841.76 -34619841.62 -34619841.49 0.1654 0.1124
 Uranus -99497-10-15 10:18 J -34619568.19 -34619568.07 -34619567.93 0.0136 0.0113
 Saturn -99495-08-15 12:13 J -34618899.22 -34618898.99 -34618898.75 0.0275 0.0055
 Jupiter -99490-03-12 06:13 J -34617229.47 -34617229.24 -34617229.00 0.0487 0.0155

Saturn -99481-01-26 05:01 J -34613987.35 -34613987.29 -34613987.20 0.0285 0.0269
 Saturn -99480-02-08 09:06 J -34613608.31 -34613608.12 -34613607.91 0.0284 0.0158
 Jupiter -99478-03-17 03:35 J -34612841.57 -34612841.35 -34612841.14 0.0488 0.0200
 Saturn -99466-08-10 12:13 J -34608312.22 -34608311.99 -34608311.77 0.0275 0.0099
 Saturn -99465-08-21 19:11 J -34607934.73 -34607934.70 -34607934.65 0.0276 0.0271
 Uranus -99461-03-29 03:49 J -34606619.43 -34606619.34 -34606619.20 0.0145 0.0130
 Jupiter -99461-09-14 18:28 J -34606449.93 -34606449.73 -34606449.53 0.0541 0.0247
 Uranus -99460-04-03 09:20 J -34606249.33 -34606249.11 -34606248.87 0.0145 0.0064
 Uranus -99459-04-09 00:28 J -34605878.74 -34605878.48 -34605878.21 0.0144 0.0027
 Uranus -99458-04-14 01:40 J -34605508.63 -34605508.43 -34605508.22 0.0143 0.0090
 Saturn -99451-02-02 13:25 J -34603022.20 -34603021.94 -34603021.68 0.0284 0.0023
 Mars -99450-01-09 04:32 J -34602681.36 -34602681.31 -34602681.26 0.1643 0.1564
 Jupiter -99449-09-19 23:16 J -34602061.71 -34602061.53 -34602061.33 0.0541 0.0268
 Neptune -99440-02-11 17:44 J -34598994.89 -34598994.76 -34598994.63 0.0089 0.0077
 Neptune -99439-02-14 00:56 J -34598627.66 -34598627.46 -34598627.24 0.0089 0.0053
 Neptune -99438-02-16 22:18 J -34598259.84 -34598259.57 -34598259.30 0.0089 0.0010
 Neptune -99437-02-19 07:25 J -34597892.44 -34597892.19 -34597891.93 0.0089 0.0014
 Saturn -99437-08-04 14:08 J -34597724.93 -34597724.91 -34597724.88 0.0274 0.0272
 Neptune -99436-02-21 01:54 J -34597524.61 -34597524.42 -34597524.19 0.0089 0.0056
 Saturn -99436-08-16 17:44 J -34597347.99 -34597347.76 -34597347.52 0.0275 0.0101
 Neptune -99435-02-23 15:06 J -34597156.95 -34597156.87 -34597156.75 0.0089 0.0081
 Saturn -99422-01-27 19:11 J -34592435.84 -34592435.70 -34592435.53 0.0285 0.0217
 Saturn -99421-02-10 20:37 J -34592056.80 -34592056.64 -34592056.46 0.0283 0.0206
 Uranus -99417-09-30 17:44 J -34590362.89 -34590362.76 -34590362.60 0.0134 0.0105
 Uranus -99416-10-04 22:32 J -34589993.79 -34589993.56 -34589993.32 0.0134 0.0049
 Uranus -99415-10-08 20:08 J -34589624.89 -34589624.66 -34589624.42 0.0135 0.0013
 Uranus -99414-10-13 01:54 J -34589255.64 -34589255.42 -34589255.19 0.0135 0.0060
 Uranus -99413-10-16 00:42 J -34588886.51 -34588886.47 -34588886.39 0.0136 0.0131
 Jupiter -99407-03-11 18:28 J -34586913.94 -34586913.73 -34586913.52 0.0487 0.0201
 Saturn -99407-08-11 21:35 J -34586760.83 -34586760.60 -34586760.37 0.0275 0.0054

Pluto -99400-04-05 08:37 J -34584332.37 -34584332.14 -34584331.87 0.0066 0.0030
 Pluto -99399-04-07 08:52 J -34583965.22 -34583965.13 -34583965.00 0.0067 0.0061
 Jupiter -99395-03-16 00:28 J -34582526.72 -34582526.48 -34582526.24 0.0487 0.0129
 Saturn -99392-02-04 01:11 J -34581470.70 -34581470.45 -34581470.21 0.0284 0.0031
 Jupiter -99383-03-20 15:35 J -34578138.93 -34578138.85 -34578138.76 0.0488 0.0452
 Saturn -99378-08-06 21:49 J -34576173.73 -34576173.59 -34576173.44 0.0274 0.0223
 Jupiter -99378-09-15 04:47 J -34576134.47 -34576134.30 -34576134.12 0.0541 0.0310
 Uranus -99377-03-29 15:06 J -34575937.97 -34575937.87 -34575937.73 0.0145 0.0130
 Saturn -99377-08-17 22:18 J -34575796.77 -34575796.57 -34575796.35 0.0276 0.0148
 Uranus -99376-04-03 21:49 J -34575567.83 -34575567.59 -34575567.34 0.0144 0.0045
 Uranus -99375-04-09 12:28 J -34575197.24 -34575196.98 -34575196.71 0.0144 0.0017
 Uranus -99374-04-14 14:08 J -34574827.07 -34574826.91 -34574826.72 0.0143 0.0104
 Mars -99371-01-11 01:25 J -34573824.62 -34573824.44 -34573824.26 0.1645 0.0320
 Jupiter -99366-09-19 23:59 J -34571746.71 -34571746.50 -34571746.28 0.0540 0.0192
 Mars -99365-07-23 07:11 J -34571439.38 -34571439.20 -34571439.02 0.1875 0.0206
 Saturn -99363-01-29 09:06 J -34570884.32 -34570884.12 -34570883.90 0.0285 0.0161
 Saturn -99362-02-12 05:44 J -34570505.35 -34570505.26 -34570505.14 0.0283 0.0257
 Neptune -99358-08-21 23:59 J -34568853.64 -34568853.50 -34568853.35 0.0088 0.0073
 Neptune -99357-08-23 10:32 J -34568486.24 -34568486.06 -34568485.83 0.0088 0.0048
 Neptune -99356-08-25 15:20 J -34568119.11 -34568118.86 -34568118.60 0.0088 0.0010
 Neptune -99355-08-28 06:13 J -34567751.49 -34567751.24 -34567750.99 0.0088 0.0015
 Neptune -99354-08-30 07:40 J -34567384.37 -34567384.18 -34567383.96 0.0088 0.0051
 Neptune -99353-08-31 23:01 J -34567016.66 -34567016.54 -34567016.41 0.0088 0.0077
 Saturn -99348-08-13 09:49 J -34565209.32 -34565209.09 -34565208.85 0.0276 0.0007
 Saturn -99333-02-06 18:13 J -34559918.96 -34559918.74 -34559918.51 0.0284 0.0085
 Uranus -99333-10-01 08:08 J -34559681.31 -34559681.16 -34559680.99 0.0134 0.0097
 Uranus -99332-10-05 11:44 J -34559312.24 -34559312.01 -34559311.76 0.0134 0.0041
 Uranus -99331-10-09 10:18 J -34558943.31 -34558943.07 -34558942.83 0.0135 0.0009
 Uranus -99330-10-13 14:37 J -34558574.10 -34558573.89 -34558573.68 0.0135 0.0076
 Uranus -99329-10-16 14:23 J -34558204.99 -34558204.90 -34558204.78 0.0136 0.0122

Jupiter -99324-03-10 14:23 J -34556599.10 -34556598.90 -34556598.69 0.0486 0.0267
 Saturn -99319-08-08 03:06 J -34554622.56 -34554622.37 -34554622.17 0.0274 0.0172
 Saturn -99318-08-20 07:54 J -34554245.33 -34554245.17 -34554245.00 0.0276 0.0195
 Pluto -99314-10-07 14:52 J -34552736.11 -34552735.88 -34552735.63 0.0078 0.0016
 Jupiter -99312-03-15 04:47 J -34552211.53 -34552211.30 -34552211.07 0.0487 0.0065
 Saturn -99304-01-30 19:25 J -34549332.93 -34549332.69 -34549332.45 0.0285 0.0106
 Jupiter -99300-03-19 21:49 J -34547823.73 -34547823.59 -34547823.44 0.0488 0.0392
 Jupiter -99295-09-13 21:35 J -34545819.74 -34545819.60 -34545819.45 0.0541 0.0413
 Uranus -99293-03-30 01:25 J -34545256.59 -34545256.44 -34545256.29 0.0145 0.0120
 Mars -99292-01-13 04:04 J -34544967.52 -34544967.33 -34544967.13 0.1647 0.0144
 Uranus -99292-04-04 08:52 J -34544886.36 -34544886.13 -34544885.88 0.0144 0.0054
 Uranus -99291-04-09 21:49 J -34544515.84 -34544515.59 -34544515.31 0.0144 0.0036
 Uranus -99290-04-15 00:28 J -34544145.65 -34544145.48 -34544145.28 0.0143 0.0098
 Saturn -99289-08-14 19:25 J -34543657.93 -34543657.69 -34543657.45 0.0276 0.0043
 Mars -99286-07-27 03:20 J -34542581.47 -34542581.36 -34542581.25 0.1872 0.1485
 Jupiter -99283-09-18 17:59 J -34541431.96 -34541431.75 -34541431.53 0.0541 0.0087
 Saturn -99275-01-25 11:16 J -34538746.07 -34538746.03 -34538745.97 0.0285 0.0277
 Neptune -99275-02-13 11:30 J -34538727.19 -34538727.02 -34538726.83 0.0089 0.0065
 Saturn -99274-02-08 13:11 J -34538367.16 -34538366.95 -34538366.74 0.0284 0.0142
 Neptune -99274-02-15 21:20 J -34538359.83 -34538359.61 -34538359.35 0.0089 0.0033
 Neptune -99273-02-18 14:08 J -34537992.18 -34537991.91 -34537991.63 0.0089 0.0001
 Neptune -99272-02-20 05:01 J -34537624.51 -34537624.29 -34537624.04 0.0089 0.0034
 Neptune -99271-02-22 17:30 J -34537256.93 -34537256.77 -34537256.59 0.0089 0.0068
 Saturn -99260-08-09 11:01 J -34533071.24 -34533071.04 -34533070.82 0.0274 0.0123
 Saturn -99259-08-21 20:37 J -34532693.74 -34532693.64 -34532693.52 0.0276 0.0241
 Uranus -99249-10-01 20:52 J -34528999.79 -34528999.63 -34528999.45 0.0134 0.0095
 Uranus -99248-10-05 23:30 J -34528630.75 -34528630.52 -34528630.27 0.0134 0.0040
 Uranus -99247-10-09 23:30 J -34528261.75 -34528261.52 -34528261.28 0.0135 0.0021
 Uranus -99246-10-14 03:06 J -34527892.58 -34527892.37 -34527892.14 0.0135 0.0068
 Mars -99245-01-07 22:04 J -34527806.63 -34527806.58 -34527806.53 0.1638 0.1581

Saturn -99245-02-02 05:30 J -34527781.51 -34527781.27 -34527781.02 0.0284 0.0050
 Jupiter -99241-03-09 19:54 J -34526283.84 -34526283.67 -34526283.49 0.0486 0.0325
 Saturn -99230-08-16 23:44 J -34522106.74 -34522106.51 -34522106.27 0.0276 0.0090
 Jupiter -99229-03-14 10:18 J -34521896.32 -34521896.07 -34521895.82 0.0487 0.0003
 Jupiter -99217-03-18 16:04 J -34517509.00 -34517508.83 -34517508.65 0.0487 0.0320
 Saturn -99216-01-27 04:18 J -34517194.46 -34517194.32 -34517194.15 0.0285 0.0222
 Saturn -99215-02-10 02:37 J -34516815.56 -34516815.39 -34516815.19 0.0283 0.0195
 Mars -99213-01-16 16:18 J -34516109.92 -34516109.82 -34516109.71 0.1650 0.1405
 Jupiter -99212-09-12 22:18 J -34515504.65 -34515504.57 -34515504.48 0.0542 0.0497
 Uranus -99209-03-30 09:49 J -34514575.23 -34514575.09 -34514574.92 0.0145 0.0120
 Uranus -99208-04-04 19:25 J -34514204.93 -34514204.69 -34514204.44 0.0144 0.0037
 Uranus -99207-04-10 07:54 J -34513834.44 -34513834.17 -34513833.90 0.0144 0.0025
 Uranus -99206-04-15 11:44 J -34513464.16 -34513464.01 -34513463.84 0.0143 0.0113
 Saturn -99201-08-10 23:59 J -34511519.73 -34511519.50 -34511519.28 0.0274 0.0075
 Jupiter -99200-09-18 02:08 J -34511116.64 -34511116.41 -34511116.18 0.0541 0.0029
 Neptune -99193-08-22 16:04 J -34508586.00 -34508585.83 -34508585.61 0.0088 0.0058
 Neptune -99192-08-25 07:25 J -34508218.41 -34508218.19 -34508217.94 0.0088 0.0034
 Neptune -99191-08-27 09:35 J -34507851.35 -34507851.10 -34507850.85 0.0088 0.0005
 Neptune -99190-08-29 23:59 J -34507483.73 -34507483.50 -34507483.25 0.0088 0.0030
 Neptune -99189-08-31 03:49 J -34507116.49 -34507116.34 -34507116.18 0.0088 0.0068
 Jupiter -99188-09-22 17:44 J -34506728.86 -34506728.76 -34506728.66 0.0540 0.0478
 Saturn -99186-02-03 20:08 J -34506229.90 -34506229.66 -34506229.41 0.0284 0.0005
 Saturn -99172-08-05 23:30 J -34500932.63 -34500932.52 -34500932.37 0.0274 0.0232
 Saturn -99171-08-18 03:06 J -34500555.58 -34500555.37 -34500555.15 0.0276 0.0134
 Mars -99166-01-10 09:35 J -34498949.25 -34498949.10 -34498948.96 0.1640 0.1106
 Uranus -99165-10-02 10:04 J -34498318.24 -34498318.08 -34498317.89 0.0134 0.0088
 Uranus -99164-10-06 11:30 J -34497949.26 -34497949.02 -34497948.77 0.0134 0.0034
 Uranus -99163-10-10 12:28 J -34497580.21 -34497579.98 -34497579.74 0.0135 0.0018
 Uranus -99162-10-14 14:37 J -34497211.09 -34497210.89 -34497210.69 0.0135 0.0083
 Uranus -99161-10-17 16:47 J -34496841.86 -34496841.80 -34496841.72 0.0136 0.0129

Jupiter -99158-03-09 22:18 J -34495968.72 -34495968.57 -34495968.42 0.0486 0.0384
 Saturn -99157-01-29 14:08 J -34495643.11 -34495642.91 -34495642.70 0.0285 0.0171
 Saturn -99156-02-11 10:18 J -34495264.19 -34495264.07 -34495263.93 0.0283 0.0243
 Pluto -99153-04-06 10:18 J -34494114.24 -34494114.07 -34494113.86 0.0066 0.0048
 Pluto -99152-04-08 09:06 J -34493747.30 -34493747.12 -34493746.88 0.0067 0.0042
 Jupiter -99146-03-14 07:11 J -34491581.44 -34491581.20 -34491580.97 0.0486 0.0069
 Saturn -99142-08-13 11:16 J -34489968.27 -34489968.03 -34489967.79 0.0274 0.0029
 Jupiter -99134-03-19 02:52 J -34487193.58 -34487193.38 -34487193.17 0.0487 0.0265
 Saturn -99127-02-05 11:30 J -34484678.25 -34484678.02 -34484677.78 0.0284 0.0051
 Uranus -99125-03-30 17:16 J -34483893.93 -34483893.78 -34483893.60 0.0145 0.0115
 Uranus -99124-04-05 04:18 J -34483523.55 -34483523.32 -34483523.07 0.0144 0.0047
 Uranus -99123-04-10 14:37 J -34483153.14 -34483152.89 -34483152.62 0.0144 0.0042
 Uranus -99122-04-15 20:08 J -34482782.83 -34482782.66 -34482782.48 0.0143 0.0103
 Jupiter -99117-09-16 20:23 J -34480801.87 -34480801.65 -34480801.43 0.0541 0.0059
 Saturn -99113-08-07 02:52 J -34479381.55 -34479381.38 -34479381.20 0.0274 0.0187
 Saturn -99112-08-19 11:01 J -34479004.22 -34479004.04 -34479003.86 0.0276 0.0175
 Neptune -99111-02-12 12:56 J -34478827.04 -34478826.96 -34478826.81 0.0089 0.0079
 Neptune -99110-02-15 03:35 J -34478459.54 -34478459.35 -34478459.10 0.0089 0.0054
 Neptune -99109-02-17 20:52 J -34478091.88 -34478091.63 -34478091.37 0.0089 0.0011
 Neptune -99108-02-19 06:56 J -34477724.47 -34477724.21 -34477723.93 0.0089 0.0013
 Neptune -99107-02-22 02:52 J -34477356.55 -34477356.38 -34477356.15 0.0089 0.0056
 Neptune -99106-02-24 10:47 J -34476989.13 -34476989.05 -34476988.90 0.0089 0.0080
 Jupiter -99105-09-21 23:59 J -34476413.66 -34476413.50 -34476413.35 0.0540 0.0382
 Saturn -99098-01-30 18:28 J -34474091.95 -34474091.73 -34474091.49 0.0285 0.0126
 Mars -99087-01-12 15:06 J -34470092.06 -34470091.87 -34470091.69 0.1642 0.0164
 Saturn -99083-08-14 14:52 J -34468417.12 -34468416.88 -34468416.63 0.0274 0.0014
 Mars -99081-07-22 20:08 J -34467708.88 -34467708.66 -34467708.44 0.1882 0.0106
 Uranus -99081-10-02 22:32 J -34467636.73 -34467636.56 -34467636.37 0.0134 0.0088
 Uranus -99080-10-06 23:01 J -34467267.78 -34467267.54 -34467267.29 0.0134 0.0032
 Uranus -99079-10-11 01:25 J -34466898.67 -34466898.44 -34466898.21 0.0135 0.0027

Uranus	-99078-10-15 01:54 J	-34466529.62	-34466529.42	-34466529.20	0.0135	0.0076
Jupiter	-99075-03-08 23:30 J	-34465653.62	-34465653.52	-34465653.42	0.0486	0.0439
Saturn	-99068-02-06 20:37 J	-34463126.87	-34463126.64	-34463126.39	0.0284	0.0096
Pluto	-99067-10-08 17:16 J	-34462517.98	-34462517.78	-34462517.57	0.0078	0.0046
Jupiter	-99063-03-13 19:11 J	-34461265.93	-34461265.70	-34461265.46	0.0487	0.0126
Saturn	-99054-08-09 09:35 J	-34457830.28	-34457830.10	-34457829.89	0.0274	0.0149
Saturn	-99053-08-20 19:40 J	-34457452.83	-34457452.68	-34457452.53	0.0276	0.0212
Jupiter	-99051-03-18 00:42 J	-34456878.69	-34456878.47	-34456878.25	0.0487	0.0214
Uranus	-99041-03-31 01:25 J	-34453212.61	-34453212.44	-34453212.27	0.0145	0.0113
Uranus	-99040-04-05 14:08 J	-34452842.16	-34452841.91	-34452841.67	0.0144	0.0033
Saturn	-99039-02-01 00:42 J	-34452540.70	-34452540.47	-34452540.24	0.0285	0.0083
Uranus	-99039-04-10 23:01 J	-34452471.80	-34452471.54	-34452471.27	0.0144	0.0030
Uranus	-99038-04-16 05:59 J	-34452101.38	-34452101.25	-34452101.09	0.0143	0.0118
Jupiter	-99034-09-17 04:32 J	-34450486.53	-34450486.31	-34450486.09	0.0542	0.0134
Neptune	-99029-08-22 09:20 J	-34448685.24	-34448685.11	-34448684.95	0.0088	0.0072
Neptune	-99028-08-24 11:30 J	-34448318.21	-34448318.02	-34448317.79	0.0088	0.0047
Neptune	-99027-08-27 02:23 J	-34447950.65	-34447950.40	-34447950.14	0.0088	0.0010
Neptune	-99026-08-29 07:25 J	-34447583.43	-34447583.19	-34447582.95	0.0088	0.0015
Neptune	-99025-08-30 16:47 J	-34447216.00	-34447215.80	-34447215.58	0.0088	0.0051
Saturn	-99024-08-15 15:35 J	-34446866.09	-34446865.85	-34446865.61	0.0274	0.0053
Neptune	-99024-09-02 01:40 J	-34446848.51	-34446848.43	-34446848.28	0.0088	0.0078
Jupiter	-99022-09-21 21:49 J	-34446098.77	-34446098.59	-34446098.40	0.0541	0.0315
Saturn	-99010-01-26 02:23 J	-34441954.46	-34441954.40	-34441954.33	0.0286	0.0274
Saturn	-99009-02-08 21:49 J	-34441575.81	-34441575.59	-34441575.36	0.0284	0.0134
Mars	-99008-01-14 11:59 J	-34441235.17	-34441235.00	-34441234.84	0.1644	0.0604
Mars	-99002-07-27 10:47 J	-34438850.17	-34438850.05	-34438849.92	0.1878	0.1462

99TH MILLENNIUM BCE

This is a list of transits of Moon in the 99th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-98997-10-03 11:01 J	-34436955.22	-34436955.04	-34436954.84	0.0134	0.0080		
Uranus	-98996-10-07 09:35 J	-34436586.34	-34436586.10	-34436585.84	0.0134	0.0028		
Saturn	-98995-08-10 17:01 J	-34436279.01	-34436278.79	-34436278.57	0.0274	0.0108		
Uranus	-98995-10-11 13:11 J	-34436217.18	-34436216.95	-34436216.71	0.0135	0.0025		
Saturn	-98994-08-22 21:20 J	-34435901.70	-34435901.61	-34435901.48	0.0276	0.0246		
Uranus	-98994-10-15 12:13 J	-34435848.16	-34435847.99	-34435847.78	0.0135	0.0089		
Uranus	-98993-10-18 17:16 J	-34435478.79	-34435478.78	-34435478.72	0.0136	0.0135		
Jupiter	-98992-03-08 13:11 J	-34435337.97	-34435337.95	-34435337.93	0.0486	0.0484		
Saturn	-98980-02-02 08:08 J	-34430989.40	-34430989.16	-34430988.93	0.0285	0.0046		
Jupiter	-98980-03-12 17:30 J	-34430951.00	-34430950.77	-34430950.54	0.0486	0.0174		
Jupiter	-98968-03-17 14:37 J	-34426563.11	-34426562.89	-34426562.67	0.0487	0.0175		
Saturn	-98966-08-05 14:23 J	-34425691.95	-34425691.90	-34425691.83	0.0273	0.0264		
Saturn	-98965-08-16 19:11 J	-34425314.91	-34425314.70	-34425314.47	0.0274	0.0090		
Mars	-98961-01-09 01:11 J	-34424074.57	-34424074.45	-34424074.32	0.1634	0.1150		
Uranus	-98957-03-31 08:23 J	-34422531.32	-34422531.15	-34422530.97	0.0145	0.0111		
Uranus	-98956-04-05 22:04 J	-34422160.81	-34422160.58	-34422160.32	0.0144	0.0042		
Uranus	-98955-04-11 05:16 J	-34421790.53	-34421790.28	-34421790.01	0.0144	0.0046		
Uranus	-98954-04-16 13:54 J	-34421420.07	-34421419.92	-34421419.74	0.0143	0.0107		
Saturn	-98951-01-27 00:56 J	-34420403.59	-34420403.46	-34420403.31	0.0286	0.0236		
Jupiter	-98951-09-16 06:13 J	-34420171.45	-34420171.24	-34420171.02	0.0542	0.0187		
Saturn	-98950-02-09 22:18 J	-34420024.76	-34420024.57	-34420024.37	0.0284	0.0170		
Neptune	-98946-02-14 12:28 J	-34418559.12	-34418558.98	-34418558.79	0.0089	0.0067		

Neptune -98945-02-16 21:49 J -34418191.83 -34418191.59 -34418191.33 0.0089 0.0032
 Neptune -98944-02-18 19:25 J -34417823.95 -34417823.69 -34417823.42 0.0089 0.0001
 Neptune -98943-02-21 02:37 J -34417456.61 -34417456.39 -34417456.13 0.0089 0.0035
 Neptune -98942-02-24 00:28 J -34417088.63 -34417088.48 -34417088.29 0.0089 0.0069
 Jupiter -98939-09-21 10:18 J -34415783.26 -34415783.07 -34415782.87 0.0541 0.0248
 Saturn -98936-08-11 19:25 J -34414727.93 -34414727.69 -34414727.45 0.0274 0.0071
 Saturn -98935-08-23 18:42 J -34414350.72 -34414350.72 -34414350.71 0.0276 0.0275
 Saturn -98921-02-04 11:30 J -34409438.27 -34409438.02 -34409437.78 0.0285 0.0011
 Uranus -98914-09-30 19:11 J -34406642.76 -34406642.70 -34406642.61 0.0134 0.0127
 Uranus -98913-10-03 23:16 J -34406273.71 -34406273.53 -34406273.34 0.0134 0.0082
 Uranus -98912-10-07 20:52 J -34405904.87 -34405904.63 -34405904.38 0.0134 0.0025
 Uranus -98911-10-12 01:25 J -34405535.66 -34405535.44 -34405535.20 0.0135 0.0033
 Uranus -98910-10-15 23:30 J -34405166.71 -34405166.52 -34405166.31 0.0135 0.0081
 Saturn -98907-08-06 16:18 J -34404140.95 -34404140.82 -34404140.68 0.0273 0.0226
 Saturn -98906-08-19 01:40 J -34403763.63 -34403763.43 -34403763.22 0.0274 0.0125
 Pluto -98905-04-09 06:56 J -34403529.46 -34403529.21 -34403528.94 0.0066 0.0011
 Jupiter -98897-03-12 09:06 J -34400635.32 -34400635.12 -34400634.90 0.0486 0.0217
 Saturn -98892-01-28 00:13 J -34398852.66 -34398852.49 -34398852.31 0.0286 0.0199
 Saturn -98891-02-11 02:08 J -34398473.56 -34398473.41 -34398473.23 0.0284 0.0205
 Jupiter -98885-03-16 17:01 J -34396248.03 -34396247.79 -34396247.55 0.0487 0.0136
 Mars -98882-01-11 02:23 J -34395217.57 -34395217.40 -34395217.22 0.1636 0.0731
 Saturn -98877-08-12 16:18 J -34393177.07 -34393176.82 -34393176.57 0.0274 0.0036
 Uranus -98873-03-31 17:16 J -34391849.94 -34391849.78 -34391849.58 0.0145 0.0107
 Uranus -98872-04-06 08:52 J -34391479.38 -34391479.13 -34391478.87 0.0144 0.0028
 Uranus -98871-04-11 14:37 J -34391109.15 -34391108.89 -34391108.62 0.0144 0.0035
 Uranus -98870-04-17 00:28 J -34390738.59 -34390738.48 -34390738.33 0.0143 0.0122
 Jupiter -98868-09-15 17:16 J -34389855.97 -34389855.78 -34389855.58 0.0542 0.0255
 Neptune -98864-08-24 04:32 J -34388417.49 -34388417.31 -34388417.09 0.0088 0.0056
 Neptune -98863-08-26 10:18 J -34388050.28 -34388050.07 -34388049.82 0.0088 0.0032
 Saturn -98862-02-05 08:08 J -34387887.41 -34387887.16 -34387886.90 0.0285 0.0023

Neptune -98862-08-28 19:54 J -34387682.93 -34387682.67 -34387682.41 0.0088 0.0007
 Neptune -98861-08-30 06:28 J -34387315.44 -34387315.23 -34387314.99 0.0088 0.0032
 Neptune -98860-09-01 10:32 J -34386948.21 -34386948.06 -34386947.89 0.0088 0.0069
 Jupiter -98856-09-20 08:08 J -34385468.38 -34385468.16 -34385467.93 0.0542 0.0161
 Saturn -98848-08-07 22:18 J -34382589.73 -34382589.57 -34382589.39 0.0273 0.0188
 Saturn -98847-08-20 05:30 J -34382212.46 -34382212.27 -34382212.07 0.0274 0.0161
 Saturn -98833-01-30 03:49 J -34377301.53 -34377301.34 -34377301.14 0.0286 0.0166
 Saturn -98832-02-12 06:28 J -34376922.35 -34376922.23 -34376922.08 0.0284 0.0237
 Uranus -98830-10-01 05:59 J -34375961.25 -34375961.25 -34375961.23 0.0134 0.0134
 Uranus -98829-10-04 10:32 J -34375592.25 -34375592.06 -34375591.85 0.0134 0.0073
 Uranus -98828-10-08 06:56 J -34375223.46 -34375223.21 -34375222.96 0.0134 0.0023
 Uranus -98827-10-12 12:42 J -34374854.20 -34374853.97 -34374853.73 0.0135 0.0031
 Uranus -98826-10-16 09:35 J -34374485.26 -34374485.10 -34374484.90 0.0135 0.0093
 Pluto -98819-10-11 18:13 J -34371932.93 -34371932.74 -34371932.52 0.0078 0.0042
 Saturn -98818-08-14 15:20 J -34371626.10 -34371625.86 -34371625.62 0.0274 0.0001
 Jupiter -98814-03-12 12:42 J -34370320.18 -34370319.97 -34370319.75 0.0486 0.0253
 Mars -98803-01-13 12:13 J -34366360.18 -34366359.99 -34366359.80 0.1638 0.0542
 Saturn -98803-02-06 03:06 J -34366336.61 -34366336.37 -34366336.12 0.0285 0.0054
 Jupiter -98802-03-17 05:16 J -34365932.51 -34365932.28 -34365932.05 0.0486 0.0113
 Mars -98797-07-21 19:11 J -34363978.88 -34363978.70 -34363978.50 0.1888 0.0271
 Uranus -98789-04-01 01:54 J -34361168.59 -34361168.42 -34361168.23 0.0145 0.0105
 Saturn -98789-08-09 02:52 J -34361038.58 -34361038.38 -34361038.17 0.0273 0.0148
 Uranus -98788-04-06 17:59 J -34360797.99 -34360797.75 -34360797.49 0.0144 0.0034
 Saturn -98788-08-21 03:49 J -34360661.51 -34360661.34 -34360661.15 0.0275 0.0193
 Uranus -98787-04-11 22:04 J -34360427.82 -34360427.58 -34360427.31 0.0144 0.0052
 Uranus -98786-04-17 09:49 J -34360057.24 -34360057.09 -34360056.92 0.0143 0.0110
 Jupiter -98785-09-14 15:20 J -34359541.04 -34359540.86 -34359540.67 0.0543 0.0332
 Neptune -98782-02-13 13:40 J -34358659.04 -34358658.93 -34358658.78 0.0089 0.0077
 Neptune -98781-02-16 10:47 J -34358291.24 -34358291.05 -34358290.81 0.0089 0.0053
 Neptune -98780-02-17 18:42 J -34357923.97 -34357923.72 -34357923.46 0.0089 0.0010

Neptune -98779-02-20 15:35 J -34357556.12 -34357555.85 -34357555.58 0.0089 0.0014
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 Neptune -98777-02-25 18:56 J -34356820.80 -34356820.71 -34356820.57 0.0089 0.0081
 Saturn -98774-01-31 08:37 J -34355750.36 -34355750.14 -34355749.92 0.0286 0.0129
 Saturn -98773-02-14 07:25 J -34355371.26 -34355371.19 -34355371.11 0.0284 0.0271
 Jupiter -98773-09-19 18:28 J -34355152.94 -34355152.73 -34355152.51 0.0542 0.0102
 Jupiter -98761-09-24 21:35 J -34350764.60 -34350764.60 -34350764.60 0.0541 0.0540
 Saturn -98759-08-15 20:08 J -34350074.89 -34350074.66 -34350074.43 0.0274 0.0034
 Uranus -98746-10-01 15:49 J -34345279.93 -34345279.84 -34345279.71 0.0134 0.0120
 Uranus -98745-10-04 21:49 J -34344910.78 -34344910.59 -34344910.38 0.0134 0.0076
 Saturn -98744-02-07 03:49 J -34344785.56 -34344785.34 -34344785.10 0.0285 0.0087
 Uranus -98744-10-08 17:16 J -34344542.02 -34344541.78 -34344541.53 0.0134 0.0018
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 Jupiter -98731-03-12 02:08 J -34340004.59 -34340004.41 -34340004.22 0.0486 0.0286
 Saturn -98730-08-11 01:40 J -34339487.65 -34339487.43 -34339487.19 0.0274 0.0111
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 Mars -98724-01-15 21:06 J -34337502.77 -34337502.62 -34337502.47 0.1640 0.1029
 Jupiter -98719-03-16 14:08 J -34335617.16 -34335616.91 -34335616.66 0.0486 0.0079
 Mars -98718-07-26 09:06 J -34335120.29 -34335120.12 -34335119.94 0.1884 0.1123
 Saturn -98715-02-01 08:23 J -34334199.39 -34334199.15 -34334198.90 0.0285 0.0094
 Jupiter -98707-03-20 22:32 J -34331229.61 -34331229.56 -34331229.48 0.0487 0.0467
 Uranus -98705-04-01 10:47 J -34330487.24 -34330487.05 -34330486.85 0.0145 0.0098
 Uranus -98704-04-07 03:35 J -34330116.60 -34330116.35 -34330116.09 0.0144 0.0022
 Uranus -98703-04-12 06:42 J -34329746.47 -34329746.22 -34329745.95 0.0144 0.0041
 Uranus -98702-04-17 19:11 J -34329375.80 -34329375.70 -34329375.56 0.0143 0.0127
 Jupiter -98702-09-15 01:54 J -34329225.56 -34329225.42 -34329225.26 0.0543 0.0388
 Saturn -98700-08-17 02:23 J -34328523.63 -34328523.40 -34328523.17 0.0274 0.0070
 Neptune -98700-08-23 15:06 J -34328517.00 -34328516.87 -34328516.70 0.0088 0.0069
 Neptune -98699-08-25 23:16 J -34328149.74 -34328149.53 -34328149.29 0.0088 0.0045

Neptune -98698-08-28 11:01 J -34327782.28 -34327782.04 -34327781.79 0.0088 0.0007
 Neptune -98697-08-29 14:37 J -34327415.14 -34327414.89 -34327414.64 0.0088 0.0017
 Neptune -98696-09-01 05:44 J -34327047.45 -34327047.26 -34327047.06 0.0088 0.0055
 Neptune -98695-09-03 06:42 J -34326680.30 -34326680.22 -34326680.08 0.0088 0.0079
 Jupiter -98690-09-20 03:35 J -34324837.58 -34324837.35 -34324837.12 0.0542 0.0027
 Saturn -98686-01-26 08:08 J -34323613.20 -34323613.16 -34323613.11 0.0286 0.0280
 Saturn -98685-02-09 10:18 J -34323234.28 -34323234.07 -34323233.84 0.0285 0.0121
 Jupiter -98678-09-24 14:08 J -34320450.02 -34320449.91 -34320449.78 0.0541 0.0452
 Mars -98677-01-10 14:08 J -34320342.07 -34320341.91 -34320341.74 0.1632 0.0631
 Saturn -98671-08-12 00:42 J -34317936.70 -34317936.47 -34317936.22 0.0274 0.0074
 Saturn -98670-08-24 07:11 J -34317559.25 -34317559.20 -34317559.13 0.0275 0.0264
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 Uranus -98661-10-05 07:54 J -34314229.37 -34314229.17 -34314228.95 0.0134 0.0066
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 Uranus -98659-10-13 10:18 J -34313491.30 -34313491.07 -34313490.83 0.0135 0.0037
 Pluto -98658-04-10 23:01 J -34313311.77 -34313311.54 -34313311.27 0.0066 0.0021
 Uranus -98658-10-17 05:44 J -34313122.42 -34313122.26 -34313122.08 0.0135 0.0097
 Pluto -98657-04-11 10:04 J -34312945.14 -34312945.08 -34312944.95 0.0067 0.0063
 Saturn -98656-02-02 07:40 J -34312648.43 -34312648.18 -34312647.93 0.0285 0.0058
 Jupiter -98648-03-11 09:20 J -34309689.29 -34309689.11 -34309688.92 0.0485 0.0330
 Saturn -98642-08-07 00:28 J -34307349.60 -34307349.48 -34307349.35 0.0273 0.0233
 Saturn -98641-08-18 04:32 J -34306972.53 -34306972.31 -34306972.07 0.0274 0.0106
 Jupiter -98636-03-15 17:16 J -34305302.02 -34305301.78 -34305301.55 0.0486 0.0045
 Saturn -98627-01-27 15:49 J -34302061.96 -34302061.84 -34302061.71 0.0286 0.0242
 Saturn -98626-02-10 15:06 J -34301683.08 -34301682.87 -34301682.65 0.0284 0.0157
 Jupiter -98624-03-20 14:23 J -34300914.00 -34300913.90 -34300913.78 0.0487 0.0434
 Uranus -98621-04-01 17:59 J -34299805.94 -34299805.75 -34299805.56 0.0145 0.0099
 Uranus -98620-04-07 11:01 J -34299435.29 -34299435.04 -34299434.78 0.0144 0.0027
 Uranus -98619-04-12 13:11 J -34299065.19 -34299064.95 -34299064.69 0.0144 0.0056
 Jupiter -98619-09-14 01:40 J -34298910.53 -34298910.43 -34298910.32 0.0543 0.0485

Uranus -98618-04-18 02:52 J -34298694.52 -34298694.38 -34298694.21 0.0143 0.0113
 Neptune -98617-02-15 12:56 J -34298391.11 -34298390.96 -34298390.76 0.0089 0.0065
 Neptune -98616-02-17 08:52 J -34298023.39 -34298023.13 -34298022.88 0.0089 0.0029
 Neptune -98615-02-19 20:08 J -34297655.92 -34297655.66 -34297655.41 0.0089 0.0002
 Neptune -98614-02-22 11:16 J -34297288.27 -34297288.03 -34297287.78 0.0089 0.0037
 Neptune -98613-02-25 02:52 J -34296920.52 -34296920.38 -34296920.21 0.0089 0.0070
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 Jupiter -98607-09-18 19:54 J -34294522.89 -34294522.67 -34294522.45 0.0542 0.0072
 Mars -98598-01-12 11:44 J -34291485.18 -34291485.01 -34291484.83 0.1633 0.0270
 Saturn -98597-02-04 14:52 J -34291097.12 -34291096.88 -34291096.64 0.0285 0.0017
 Jupiter -98595-09-24 04:32 J -34290134.46 -34290134.31 -34290134.15 0.0542 0.0395
 Saturn -98583-08-08 04:04 J -34285798.50 -34285798.33 -34285798.14 0.0273 0.0193
 Saturn -98582-08-20 05:16 J -34285421.49 -34285421.28 -34285421.06 0.0274 0.0142
 Uranus -98578-10-02 11:16 J -34283917.16 -34283917.03 -34283916.90 0.0134 0.0113
 Uranus -98577-10-05 18:13 J -34283547.94 -34283547.74 -34283547.53 0.0134 0.0071
 Uranus -98576-10-09 12:28 J -34283179.23 -34283178.98 -34283178.74 0.0134 0.0012
 Uranus -98575-10-13 20:08 J -34282809.89 -34282809.66 -34282809.43 0.0135 0.0042
 Uranus -98574-10-17 15:20 J -34282441.04 -34282440.86 -34282440.68 0.0135 0.0092
 Pluto -98572-10-12 10:32 J -34281715.28 -34281715.06 -34281714.81 0.0078 0.0019
 Saturn -98568-01-28 21:20 J -34280510.78 -34280510.61 -34280510.42 0.0285 0.0198
 Saturn -98567-02-11 17:01 J -34280131.97 -34280131.79 -34280131.59 0.0284 0.0195
 Jupiter -98565-03-10 12:42 J -34279374.11 -34279373.97 -34279373.82 0.0485 0.0372
 Jupiter -98553-03-15 07:54 J -34274986.41 -34274986.17 -34274985.92 0.0486 0.0014
 Saturn -98553-08-14 17:30 J -34274834.01 -34274833.77 -34274833.54 0.0275 0.0006
 Jupiter -98541-03-19 09:49 J -34270599.24 -34270599.09 -34270598.93 0.0486 0.0374
 Saturn -98538-02-06 04:32 J -34269545.55 -34269545.31 -34269545.07 0.0285 0.0028
 Uranus -98537-04-02 00:56 J -34269124.65 -34269124.46 -34269124.25 0.0145 0.0092
 Uranus -98536-04-07 18:13 J -34268753.99 -34268753.74 -34268753.47 0.0144 0.0019
 Uranus -98535-04-12 19:54 J -34268383.92 -34268383.67 -34268383.42 0.0144 0.0044
 Neptune -98535-08-25 15:35 J -34268249.02 -34268248.85 -34268248.63 0.0088 0.0053

Uranus -98534-04-18 10:04 J -34268013.18 -34268013.08 -34268012.95 0.0143 0.0129
 Neptune -98534-08-27 18:56 J -34267881.94 -34267881.71 -34267881.45 0.0088 0.0028
 Neptune -98533-08-29 10:47 J -34267514.29 -34267514.05 -34267513.79 0.0088 0.0011
 Neptune -98532-08-31 12:28 J -34267147.19 -34267146.98 -34267146.74 0.0088 0.0036
 Neptune -98531-09-03 02:23 J -34266779.52 -34266779.40 -34266779.23 0.0088 0.0072
 Saturn -98524-08-09 07:11 J -34264247.41 -34264247.20 -34264246.99 0.0273 0.0151
 Jupiter -98524-09-18 09:49 J -34264207.31 -34264207.09 -34264206.88 0.0542 0.0136
 Saturn -98523-08-21 12:28 J -34263870.15 -34263869.98 -34263869.80 0.0275 0.0183
 Mars -98519-01-14 08:23 J -34262628.30 -34262628.15 -34262627.99 0.1635 0.0884
 Mars -98513-07-21 17:59 J -34260247.94 -34260247.75 -34260247.56 0.1893 0.0383
 Jupiter -98512-09-23 00:28 J -34259819.66 -34259819.48 -34259819.29 0.0542 0.0321
 Saturn -98509-01-31 02:08 J -34258959.62 -34258959.41 -34258959.19 0.0285 0.0154
 Saturn -98508-02-12 23:30 J -34258580.64 -34258580.52 -34258580.37 0.0284 0.0239
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 Uranus -98494-10-02 20:23 J -34253235.74 -34253235.65 -34253235.56 0.0134 0.0123
 Uranus -98493-10-06 03:35 J -34252866.56 -34252866.35 -34252866.13 0.0134 0.0060
 Uranus -98492-10-09 21:35 J -34252497.85 -34252497.60 -34252497.36 0.0134 0.0014
 Uranus -98491-10-14 05:44 J -34252128.49 -34252128.26 -34252128.02 0.0135 0.0042
 Uranus -98490-10-18 00:28 J -34251759.62 -34251759.48 -34251759.29 0.0135 0.0101
 Jupiter -98482-03-10 22:04 J -34249058.68 -34249058.58 -34249058.45 0.0485 0.0426
 Saturn -98479-02-07 18:42 J -34247993.96 -34247993.72 -34247993.48 0.0285 0.0077
 Mars -98472-01-08 04:32 J -34245467.39 -34245467.31 -34245467.22 0.1627 0.1457
 Jupiter -98470-03-15 02:08 J -34244671.65 -34244671.41 -34244671.16 0.0486 0.0048
 Saturn -98465-08-10 14:37 J -34242696.10 -34242695.89 -34242695.66 0.0274 0.0106
 Saturn -98464-08-23 00:56 J -34242318.58 -34242318.46 -34242318.31 0.0275 0.0225
 Jupiter -98458-03-19 21:35 J -34240283.77 -34240283.60 -34240283.42 0.0486 0.0321
 Neptune -98453-02-15 01:11 J -34238490.57 -34238490.45 -34238490.27 0.0089 0.0074
 Uranus -98453-04-02 07:40 J -34238443.37 -34238443.18 -34238442.98 0.0145 0.0096
 Neptune -98452-02-16 14:08 J -34238123.10 -34238122.91 -34238122.68 0.0089 0.0050
 Uranus -98452-04-08 00:13 J -34238072.75 -34238072.49 -34238072.22 0.0144 0.0023

Neptune -98451-02-19 04:18 J -34237755.59 -34237755.32 -34237755.04 0.0089 0.0007
 Uranus -98451-04-13 01:40 J -34237702.66 -34237702.43 -34237702.18 0.0144 0.0058
 Saturn -98450-02-01 12:13 J -34237408.21 -34237407.99 -34237407.76 0.0285 0.0104
 Neptune -98450-02-21 21:49 J -34237387.84 -34237387.59 -34237387.34 0.0089 0.0017
 Uranus -98450-04-18 16:47 J -34237331.94 -34237331.80 -34237331.63 0.0143 0.0114
 Neptune -98449-02-24 06:56 J -34237020.39 -34237020.21 -34237019.99 0.0089 0.0059
 Neptune -98448-02-26 03:49 J -34236652.40 -34236652.34 -34236652.22 0.0089 0.0084
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 Mars -98440-01-16 12:13 J -34233771.09 -34233770.99 -34233770.88 0.1636 0.1397
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 Saturn -98435-08-18 05:16 J -34231731.51 -34231731.28 -34231731.04 0.0275 0.0089
 Mars -98434-07-25 19:40 J -34231389.83 -34231389.68 -34231389.52 0.1890 0.0959
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 Saturn -98421-01-27 10:32 J -34226821.15 -34226821.06 -34226820.95 0.0285 0.0259
 Saturn -98420-02-09 05:30 J -34226442.50 -34226442.27 -34226442.04 0.0284 0.0127
 Pluto -98411-04-11 14:37 J -34223093.95 -34223093.89 -34223093.75 0.0066 0.0062
 Pluto -98410-04-13 04:04 J -34222727.58 -34222727.33 -34222727.07 0.0067 0.0024
 Uranus -98410-10-03 05:16 J -34222554.40 -34222554.28 -34222554.12 0.0134 0.0109
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 Uranus -98408-10-10 06:56 J -34221816.45 -34221816.21 -34221815.96 0.0134 0.0007
 Uranus -98407-10-14 15:06 J -34221447.10 -34221446.87 -34221446.64 0.0135 0.0045
 Saturn -98406-08-13 03:35 J -34221144.58 -34221144.35 -34221144.12 0.0274 0.0062
 Uranus -98406-10-18 09:49 J -34221078.24 -34221078.09 -34221077.90 0.0135 0.0096
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 Saturn -98391-02-03 04:18 J -34215856.56 -34215856.32 -34215856.09 0.0285 0.0052
 Jupiter -98387-03-14 13:54 J -34214356.15 -34214355.92 -34214355.68 0.0486 0.0095
 Saturn -98377-08-07 06:28 J -34210557.39 -34210557.23 -34210557.05 0.0274 0.0201
 Saturn -98376-08-19 10:47 J -34210180.26 -34210180.05 -34210179.84 0.0275 0.0132

Jupiter -98375-03-18 19:40 J -34209968.89 -34209968.68 -34209968.47 0.0486 0.0262
 Neptune -98371-08-24 23:01 J -34208348.71 -34208348.54 -34208348.36 0.0088 0.0065
 Neptune -98370-08-27 14:52 J -34207981.08 -34207980.88 -34207980.63 0.0088 0.0042
 Uranus -98369-04-02 15:20 J -34207762.05 -34207761.86 -34207761.65 0.0145 0.0087
 Neptune -98369-08-28 17:44 J -34207614.00 -34207613.76 -34207613.51 0.0088 0.0004
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 Neptune -98368-08-31 07:54 J -34207246.41 -34207246.17 -34207245.91 0.0088 0.0021
 Uranus -98367-04-13 08:23 J -34207021.38 -34207021.15 -34207020.89 0.0144 0.0047
 Neptune -98367-09-02 13:11 J -34206879.11 -34206878.95 -34206878.75 0.0088 0.0059
 Uranus -98366-04-18 23:30 J -34206650.61 -34206650.52 -34206650.39 0.0143 0.0130
 Neptune -98366-09-04 22:18 J -34206511.62 -34206511.57 -34206511.45 0.0088 0.0084
 Saturn -98362-01-28 21:49 J -34205269.76 -34205269.59 -34205269.41 0.0285 0.0210
 Saturn -98361-02-11 15:35 J -34204891.03 -34204890.85 -34204890.63 0.0284 0.0177
 Jupiter -98358-09-17 05:01 J -34203577.47 -34203577.29 -34203577.12 0.0543 0.0326
 Saturn -98347-08-14 16:32 J -34199593.05 -34199592.81 -34199592.57 0.0274 0.0017
 Jupiter -98346-09-22 01:25 J -34199189.66 -34199189.44 -34199189.21 0.0542 0.0156
 Saturn -98332-02-04 21:20 J -34194304.85 -34194304.61 -34194304.36 0.0285 0.0006
 Uranus -98326-10-03 14:37 J -34191872.98 -34191872.89 -34191872.77 0.0134 0.0119
 Uranus -98325-10-06 21:49 J -34191503.81 -34191503.59 -34191503.36 0.0134 0.0055
 Pluto -98325-10-13 00:13 J -34191497.53 -34191497.49 -34191497.41 0.0078 0.0075
 Uranus -98324-10-10 16:18 J -34191135.06 -34191134.82 -34191134.57 0.0134 0.0010
 Pluto -98324-10-14 18:28 J -34191130.90 -34191130.73 -34191130.52 0.0078 0.0051
 Uranus -98323-10-15 00:13 J -34190765.72 -34190765.49 -34190765.25 0.0135 0.0046
 Uranus -98322-10-18 20:08 J -34190396.81 -34190396.66 -34190396.50 0.0135 0.0102
 Saturn -98318-08-09 11:16 J -34189006.23 -34189006.03 -34189005.83 0.0274 0.0159
 Saturn -98317-08-20 20:37 J -34188628.81 -34188628.64 -34188628.45 0.0275 0.0174
 Mars -98314-01-13 20:37 J -34187752.84 -34187752.64 -34187752.45 0.1630 0.0194
 Jupiter -98304-03-13 08:37 J -34184041.38 -34184041.14 -34184040.91 0.0485 0.0157
 Saturn -98303-01-30 06:56 J -34183718.40 -34183718.21 -34183717.99 0.0285 0.0164
 Saturn -98302-02-13 05:30 J -34183339.41 -34183339.27 -34183339.12 0.0284 0.0227

Jupiter -98292-03-18 00:28 J -34179653.69 -34179653.48 -34179653.27 0.0486 0.0197
 Neptune -98288-02-15 22:18 J -34178222.75 -34178222.57 -34178222.36 0.0089 0.0062
 Saturn -98288-08-15 23:59 J -34178041.75 -34178041.50 -34178041.25 0.0274 0.0024
 Neptune -98287-02-18 16:47 J -34177855.04 -34177854.80 -34177854.55 0.0089 0.0025
 Neptune -98286-02-21 01:11 J -34177487.71 -34177487.45 -34177487.18 0.0089 0.0005
 Neptune -98285-02-23 22:18 J -34177119.78 -34177119.57 -34177119.32 0.0089 0.0042
 Uranus -98285-04-02 23:16 J -34177080.72 -34177080.53 -34177080.32 0.0145 0.0092
 Neptune -98284-02-25 05:44 J -34176752.39 -34176752.26 -34176752.09 0.0089 0.0073
 Uranus -98284-04-08 14:08 J -34176710.18 -34176709.91 -34176709.64 0.0144 0.0017
 Uranus -98283-04-13 16:18 J -34176340.05 -34176339.82 -34176339.57 0.0144 0.0060
 Uranus -98282-04-19 07:25 J -34175969.33 -34175969.19 -34175969.01 0.0143 0.0116
 Jupiter -98275-09-16 02:37 J -34173262.54 -34173262.39 -34173262.22 0.0543 0.0399
 Saturn -98273-02-07 10:32 J -34172753.31 -34172753.06 -34172752.81 0.0285 0.0046
 Mars -98267-01-07 20:23 J -34170591.76 -34170591.65 -34170591.54 0.1623 0.1312
 Jupiter -98263-09-21 01:25 J -34168874.66 -34168874.44 -34168874.23 0.0542 0.0072
 Saturn -98259-08-10 21:06 J -34167454.83 -34167454.62 -34167454.41 0.0274 0.0119
 Saturn -98258-08-23 08:08 J -34167077.30 -34167077.16 -34167077.00 0.0275 0.0212
 Saturn -98244-01-31 20:08 J -34162166.88 -34162166.66 -34162166.44 0.0285 0.0117
 Saturn -98243-02-14 21:35 J -34161787.65 -34161787.60 -34161787.52 0.0284 0.0272
 Uranus -98242-10-04 00:13 J -34161191.63 -34161191.49 -34161191.33 0.0134 0.0103
 Uranus -98241-10-07 06:56 J -34160822.43 -34160822.21 -34160821.99 0.0134 0.0062
 Uranus -98240-10-11 02:08 J -34160453.65 -34160453.41 -34160453.17 0.0134 0.0002
 Uranus -98239-10-15 09:06 J -34160084.34 -34160084.12 -34160083.88 0.0135 0.0048
 Uranus -98238-10-19 05:16 J -34159715.42 -34159715.28 -34159715.10 0.0135 0.0099
 Mars -98235-01-15 21:06 J -34158895.72 -34158895.62 -34158895.52 0.1631 0.1357
 Saturn -98230-08-06 00:56 J -34156867.51 -34156867.46 -34156867.39 0.0273 0.0265
 Mars -98229-07-20 10:18 J -34156518.26 -34156518.07 -34156517.89 0.1899 0.1065
 Saturn -98229-08-17 03:49 J -34156490.58 -34156490.34 -34156490.10 0.0274 0.0063
 Jupiter -98221-03-12 16:32 J -34153726.02 -34153725.81 -34153725.60 0.0485 0.0206
 Saturn -98214-02-08 17:01 J -34151202.03 -34151201.79 -34151201.54 0.0285 0.0089

Jupiter -98209-03-17 04:32 J -34149338.55 -34149338.31 -34149338.07 0.0486 0.0137
 Neptune -98207-08-24 19:11 J -34148447.74 -34148447.70 -34148447.61 0.0088 0.0086
 Neptune -98206-08-26 22:32 J -34148080.75 -34148080.56 -34148080.34 0.0088 0.0049
 Neptune -98205-08-28 12:28 J -34147713.23 -34147712.98 -34147712.73 0.0088 0.0023
 Neptune -98204-08-30 18:28 J -34147345.96 -34147345.73 -34147345.48 0.0088 0.0015
 Neptune -98203-09-02 03:20 J -34146978.59 -34146978.36 -34146978.12 0.0088 0.0040
 Neptune -98202-09-04 14:52 J -34146611.00 -34146610.88 -34146610.75 0.0088 0.0076
 Uranus -98201-04-03 08:23 J -34146399.36 -34146399.15 -34146398.93 0.0145 0.0080
 Uranus -98200-04-08 21:49 J -34146028.86 -34146028.59 -34146028.32 0.0144 0.0013
 Saturn -98200-08-12 07:54 J -34145903.40 -34145903.17 -34145902.94 0.0274 0.0082
 Uranus -98199-04-14 00:28 J -34145658.70 -34145658.48 -34145658.22 0.0144 0.0052
 Saturn -98199-08-24 14:37 J -34145525.98 -34145525.89 -34145525.77 0.0275 0.0247
 Uranus -98198-04-19 15:06 J -34145287.95 -34145287.87 -34145287.75 0.0143 0.0132
 Jupiter -98197-03-21 12:56 J -34144951.04 -34144950.96 -34144950.86 0.0487 0.0446
 Jupiter -98192-09-15 03:20 J -34142947.44 -34142947.36 -34142947.27 0.0542 0.0495
 Mars -98188-01-09 15:20 J -34141735.00 -34141734.86 -34141734.72 0.1624 0.0950
 Saturn -98185-02-03 10:32 J -34140615.29 -34140615.06 -34140614.83 0.0285 0.0075
 Jupiter -98180-09-20 02:08 J -34138559.64 -34138559.41 -34138559.18 0.0543 0.0007
 Saturn -98171-08-07 04:04 J -34135316.46 -34135316.33 -34135316.19 0.0273 0.0226
 Saturn -98170-08-19 10:32 J -34134939.27 -34134939.06 -34134938.83 0.0274 0.0100
 Jupiter -98168-09-24 22:47 J -34134171.64 -34134171.55 -34134171.46 0.0542 0.0491
 Pluto -98163-04-13 17:01 J -34132510.03 -34132509.79 -34132509.50 0.0066 0.0021
 Pluto -98162-04-15 16:04 J -34132142.93 -34132142.83 -34132142.72 0.0067 0.0061
 Uranus -98158-10-04 09:06 J -34130510.23 -34130510.12 -34130509.98 0.0134 0.0114
 Uranus -98157-10-07 15:06 J -34130141.10 -34130140.87 -34130140.63 0.0134 0.0049
 Saturn -98156-01-27 03:49 J -34130029.44 -34130029.34 -34130029.21 0.0286 0.0254
 Uranus -98156-10-11 11:30 J -34129772.25 -34129772.02 -34129771.78 0.0134 0.0007
 Saturn -98155-02-09 23:59 J -34129650.71 -34129650.50 -34129650.27 0.0285 0.0131
 Uranus -98155-10-15 17:59 J -34129402.97 -34129402.75 -34129402.51 0.0135 0.0050
 Uranus -98154-10-19 15:35 J -34129033.99 -34129033.85 -34129033.69 0.0135 0.0104

Mars -98150-07-25 12:42 J -34127659.15 -34127658.97 -34127658.78 0.1896 0.0960
 Saturn -98141-08-13 13:40 J -34124352.18 -34124351.93 -34124351.69 0.0274 0.0044
 Jupiter -98138-03-12 21:06 J -34123410.83 -34123410.62 -34123410.40 0.0485 0.0247
 Saturn -98126-02-04 18:56 J -34119063.95 -34119063.71 -34119063.46 0.0285 0.0036
 Jupiter -98126-03-17 05:16 J -34119023.51 -34119023.28 -34119023.05 0.0485 0.0082
 Neptune -98124-02-15 13:25 J -34118322.09 -34118321.94 -34118321.77 0.0089 0.0070
 Neptune -98123-02-17 20:52 J -34117954.85 -34117954.63 -34117954.40 0.0089 0.0044
 Neptune -98122-02-20 18:13 J -34117587.00 -34117586.74 -34117586.47 0.0089 0.0003
 Neptune -98121-02-23 01:40 J -34117219.68 -34117219.43 -34117219.17 0.0089 0.0022
 Neptune -98120-02-24 21:35 J -34116851.78 -34116851.60 -34116851.40 0.0089 0.0063
 Neptune -98119-02-27 07:11 J -34116484.21 -34116484.20 -34116484.13 0.0089 0.0088
 Uranus -98118-03-30 06:13 J -34116088.24 -34116088.24 -34116088.23 0.0145 0.0145
 Uranus -98117-04-03 15:49 J -34115718.03 -34115717.84 -34115717.62 0.0145 0.0087
 Uranus -98116-04-09 04:04 J -34115347.60 -34115347.33 -34115347.06 0.0144 0.0011
 Uranus -98115-04-14 08:52 J -34114977.35 -34114977.13 -34114976.89 0.0144 0.0063
 Jupiter -98114-03-22 00:13 J -34114635.63 -34114635.49 -34114635.34 0.0486 0.0391
 Uranus -98114-04-19 22:32 J -34114606.69 -34114606.56 -34114606.39 0.0143 0.0119
 Saturn -98112-08-08 09:20 J -34113765.28 -34113765.11 -34113764.93 0.0273 0.0187
 Saturn -98111-08-20 20:08 J -34113387.86 -34113387.66 -34113387.45 0.0274 0.0135
 Mars -98109-01-12 11:16 J -34112878.21 -34112878.03 -34112877.84 0.1626 0.0170
 Saturn -98097-01-29 10:04 J -34108478.23 -34108478.08 -34108477.91 0.0286 0.0214
 Jupiter -98097-09-19 05:01 J -34108244.51 -34108244.29 -34108244.07 0.0543 0.0061
 Saturn -98096-02-11 10:47 J -34108099.24 -34108099.05 -34108098.86 0.0285 0.0171
 Jupiter -98085-09-24 09:49 J -34103856.23 -34103856.09 -34103855.95 0.0542 0.0422
 Saturn -98082-08-15 13:11 J -34102801.20 -34102800.95 -34102800.70 0.0274 0.0012
 Pluto -98077-10-15 08:08 J -34100913.40 -34100913.16 -34100912.91 0.0078 0.0017
 Uranus -98074-10-04 18:42 J -34099828.86 -34099828.72 -34099828.54 0.0134 0.0098
 Uranus -98073-10-07 23:30 J -34099459.74 -34099459.52 -34099459.28 0.0134 0.0058
 Uranus -98072-10-11 21:06 J -34099090.86 -34099090.62 -34099090.38 0.0134 0.0003
 Uranus -98071-10-16 01:54 J -34098721.65 -34098721.42 -34098721.18 0.0135 0.0050

Uranus -98070-10-20 00:13 J -34098352.63 -34098352.49 -34098352.32 0.0135 0.0102
 Saturn -98067-02-05 19:25 J -34097512.94 -34097512.69 -34097512.43 0.0285 0.0003
 Jupiter -98055-03-12 01:54 J -34093095.61 -34093095.42 -34093095.23 0.0485 0.0284
 Saturn -98053-08-09 17:44 J -34092213.95 -34092213.76 -34092213.56 0.0273 0.0151
 Saturn -98052-08-22 02:52 J -34091836.57 -34091836.38 -34091836.19 0.0274 0.0168
 Jupiter -98043-03-16 18:28 J -34088707.97 -34088707.73 -34088707.48 0.0485 0.0035
 Neptune -98042-08-26 16:32 J -34088179.98 -34088179.81 -34088179.60 0.0088 0.0060
 Neptune -98041-08-28 00:27 J -34087812.69 -34087812.48 -34087812.25 0.0088 0.0037
 Neptune -98040-08-30 08:37 J -34087445.40 -34087445.14 -34087444.87 0.0088 0.0002
 Neptune -98039-09-01 20:37 J -34087077.86 -34087077.64 -34087077.39 0.0088 0.0026
 Saturn -98038-01-30 17:30 J -34086926.95 -34086926.77 -34086926.58 0.0286 0.0177
 Neptune -98038-09-03 23:30 J -34086710.67 -34086710.52 -34086710.31 0.0088 0.0065
 Saturn -98037-02-13 18:27 J -34086547.89 -34086547.73 -34086547.56 0.0285 0.0206
 Neptune -98037-09-05 15:06 J -34086342.88 -34086342.87 -34086342.82 0.0088 0.0088
 Uranus -98033-04-03 23:59 J -34085036.71 -34085036.50 -34085036.28 0.0145 0.0074
 Uranus -98032-04-09 10:18 J -34084666.34 -34084666.07 -34084665.80 0.0144 0.0010
 Jupiter -98031-03-20 23:15 J -34084320.69 -34084320.53 -34084320.36 0.0486 0.0345
 Uranus -98031-04-14 16:18 J -34084296.05 -34084295.82 -34084295.58 0.0144 0.0056
 Mars -98030-01-14 14:23 J -34084021.08 -34084020.90 -34084020.71 0.1627 0.0541
 Uranus -98030-04-20 04:47 J -34083925.38 -34083925.30 -34083925.20 0.0143 0.0135
 Saturn -98023-08-16 13:39 J -34081250.17 -34081249.93 -34081249.69 0.0274 0.0021
 Jupiter -98014-09-19 14:23 J -34077929.12 -34077928.90 -34077928.68 0.0543 0.0125
 Saturn -98008-02-06 18:13 J -34075961.99 -34075961.74 -34075961.49 0.0285 0.0034
 Jupiter -98002-09-24 02:37 J -34073541.56 -34073541.39 -34073541.21 0.0543 0.0340

98TH MILLENNIUM BCE

This is a list of transits of Moon in the 98th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-97994-08-11 23:59 J		-34070662.71	-34070662.50	-34070662.27	0.0273	0.0114	
Saturn	-97993-08-23 02:08 J		-34070285.56	-34070285.41	-34070285.23	0.0274	0.0201	
Uranus	-97990-10-05 04:03 J		-34069147.47	-34069147.33	-34069147.19	0.0133	0.0108	
Uranus	-97989-10-08 07:39 J		-34068778.42	-34068778.18	-34068777.94	0.0134	0.0044	
Uranus	-97988-10-12 06:42 J		-34068409.46	-34068409.22	-34068408.99	0.0134	0.0004	
Uranus	-97987-10-16 10:03 J		-34068040.29	-34068040.08	-34068039.83	0.0135	0.0054	
Uranus	-97986-10-20 10:18 J		-34067671.21	-34067671.07	-34067670.91	0.0135	0.0105	
Mars	-97983-01-08 20:51 J		-34066859.80	-34066859.63	-34066859.46	0.1621	0.0901	
Saturn	-97979-01-31 22:32 J		-34065375.77	-34065375.56	-34065375.35	0.0286	0.0141	
Saturn	-97978-02-14 18:56 J		-34064996.84	-34064996.71	-34064996.57	0.0285	0.0241	
Jupiter	-97972-03-11 15:49 J		-34062780.02	-34062779.84	-34062779.66	0.0485	0.0319	
Saturn	-97965-08-05 07:39 J		-34060076.22	-34060076.18	-34060076.11	0.0273	0.0266	
Saturn	-97964-08-17 18:27 J		-34059698.96	-34059698.73	-34059698.50	0.0274	0.0054	
Neptune	-97960-02-14 16:03 J		-34058421.88	-34058421.83	-34058421.74	0.0089	0.0085	
Jupiter	-97960-03-15 19:25 J		-34058392.93	-34058392.69	-34058392.45	0.0485	0.0011	
Neptune	-97959-02-17 12:56 J		-34058054.14	-34058053.96	-34058053.74	0.0089	0.0058	
Neptune	-97958-02-19 21:20 J		-34057686.86	-34057686.61	-34057686.36	0.0089	0.0020	
Neptune	-97957-02-22 16:32 J		-34057319.07	-34057318.81	-34057318.54	0.0089	0.0010	
Neptune	-97956-02-24 04:03 J		-34056951.54	-34056951.33	-34056951.11	0.0089	0.0046	
Neptune	-97955-02-26 18:13 J		-34056583.84	-34056583.74	-34056583.57	0.0089	0.0077	
Uranus	-97950-03-30 18:13 J		-34054725.81	-34054725.74	-34054725.67	0.0145	0.0140	
Saturn	-97949-02-08 20:08 J		-34054410.88	-34054410.66	-34054410.42	0.0285	0.0069	
Uranus	-97949-04-04 07:11 J		-34054355.39	-34054355.20	-34054354.98	0.0145	0.0084	
Jupiter	-97948-03-20 15:49 J		-34054005.02	-34054004.84	-34054004.66	0.0486	0.0311	
Uranus	-97948-04-09 16:03 J		-34053985.10	-34053984.83	-34053984.56	0.0144	0.0006	

Uranus -97947-04-15 00:13 J -34053614.71 -34053614.49 -34053614.26 0.0144 0.0064
 Uranus -97946-04-20 11:15 J -34053244.16 -34053244.03 -34053243.87 0.0143 0.0121
 Mars -97945-07-19 15:35 J -34052787.95 -34052787.85 -34052787.75 0.1904 0.1575
 Saturn -97935-08-13 00:13 J -34049111.73 -34049111.49 -34049111.24 0.0273 0.0081
 Saturn -97934-08-25 00:56 J -34048734.59 -34048734.46 -34048734.33 0.0274 0.0231
 Jupiter -97931-09-18 09:20 J -34047614.32 -34047614.11 -34047613.90 0.0543 0.0200
 Saturn -97920-02-01 21:06 J -34043824.85 -34043824.62 -34043824.38 0.0286 0.0107
 Saturn -97919-02-15 15:06 J -34043445.92 -34043445.87 -34043445.79 0.0285 0.0275
 Jupiter -97919-09-23 19:25 J -34043225.87 -34043225.69 -34043225.50 0.0543 0.0289
 Pluto -97915-04-16 02:23 J -34041925.65 -34041925.40 -34041925.14 0.0066 0.0013
 Saturn -97906-08-07 12:42 J -34038525.08 -34038524.97 -34038524.84 0.0273 0.0234
 Uranus -97906-10-05 13:25 J -34038466.10 -34038465.94 -34038465.76 0.0134 0.0093
 Saturn -97905-08-18 23:44 J -34038147.74 -34038147.51 -34038147.28 0.0274 0.0085
 Uranus -97905-10-08 15:06 J -34038097.09 -34038096.87 -34038096.62 0.0134 0.0055
 Mars -97904-01-11 03:35 J -34038002.53 -34038002.35 -34038002.17 0.1622 0.0488
 Uranus -97904-10-12 15:20 J -34037728.10 -34037727.86 -34037727.62 0.0134 0.0006
 Uranus -97903-10-16 17:30 J -34037359.00 -34037358.77 -34037358.53 0.0135 0.0050
 Uranus -97902-10-20 18:27 J -34036989.86 -34036989.73 -34036989.56 0.0135 0.0105
 Saturn -97891-01-26 23:01 J -34033238.57 -34033238.54 -34033238.49 0.0286 0.0282
 Saturn -97890-02-09 23:59 J -34032859.73 -34032859.50 -34032859.27 0.0285 0.0100
 Jupiter -97889-03-10 17:44 J -34032464.92 -34032464.76 -34032464.59 0.0485 0.0351
 Neptune -97878-08-26 04:32 J -34028279.39 -34028279.31 -34028279.18 0.0088 0.0080
 Jupiter -97877-03-15 14:08 J -34028077.14 -34028076.91 -34028076.67 0.0485 0.0041
 Neptune -97877-08-27 12:13 J -34027912.21 -34027911.99 -34027911.75 0.0088 0.0044
 Saturn -97876-08-13 21:49 J -34027560.83 -34027560.59 -34027560.34 0.0273 0.0050
 Neptune -97876-08-30 01:54 J -34027544.65 -34027544.42 -34027544.17 0.0088 0.0018
 Saturn -97875-08-26 03:49 J -34027183.38 -34027183.34 -34027183.27 0.0274 0.0266
 Neptune -97875-09-01 05:01 J -34027177.53 -34027177.29 -34027177.03 0.0088 0.0019
 Neptune -97874-09-03 20:37 J -34026809.84 -34026809.64 -34026809.40 0.0088 0.0045
 Neptune -97873-09-04 22:47 J -34026442.63 -34026442.55 -34026442.43 0.0088 0.0080

Mars -97866-07-24 00:27 J -34023929.67 -34023929.48 -34023929.28 0.1901 0.0612
 Jupiter -97865-03-19 17:44 J -34023689.96 -34023689.76 -34023689.55 0.0485 0.0270
 Uranus -97865-04-04 14:23 J -34023674.11 -34023673.90 -34023673.66 0.0145 0.0070
 Uranus -97864-04-09 21:20 J -34023303.88 -34023303.61 -34023303.33 0.0144 0.0010
 Uranus -97863-04-15 07:11 J -34022933.43 -34022933.20 -34022932.97 0.0144 0.0059
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 Jupiter -97379-03-12 16:32 J -33846185.97 -33846185.81 -33846185.64 0.0485 0.0351
 Saturn -97376-08-08 08:23 J -33844941.31 -33844941.15 -33844940.99 0.0273 0.0213
 Saturn -97375-08-20 17:01 J -33844564.00 -33844563.79 -33844563.56 0.0274 0.0100
 Jupiter -97367-03-17 10:18 J -33841798.30 -33841798.07 -33841797.83 0.0485 0.0010
 Uranus -97362-04-01 23:44 J -33839956.58 -33839956.51 -33839956.38 0.0145 0.0134
 Saturn -97361-01-27 21:06 J -33839655.69 -33839655.62 -33839655.53 0.0286 0.0269
 Uranus -97361-04-06 16:47 J -33839586.04 -33839585.80 -33839585.55 0.0145 0.0052
 Saturn -97360-02-09 15:06 J -33839277.09 -33839276.87 -33839276.64 0.0285 0.0102
 Uranus -97360-04-11 18:56 J -33839215.97 -33839215.71 -33839215.45 0.0144 0.0002
 Uranus -97359-04-17 10:47 J -33838845.26 -33838845.05 -33838844.81 0.0144 0.0075
 Uranus -97358-04-22 11:59 J -33838475.01 -33838475.00 -33838474.96 0.0143 0.0143
 Jupiter -97355-03-21 14:51 J -33837411.04 -33837410.88 -33837410.73 0.0485 0.0375
 Saturn -97346-08-15 23:30 J -33833976.76 -33833976.52 -33833976.27 0.0274 0.0036
 Jupiter -97338-09-19 05:30 J -33831020.45 -33831020.27 -33831020.07 0.0543 0.0298
 Mars -97336-01-13 06:56 J -33830538.38 -33830538.21 -33830538.04 0.1617 0.0355
 Pluto -97334-10-20 19:39 J -33829527.89 -33829527.68 -33829527.46 0.0078 0.0041
 Saturn -97331-02-04 14:23 J -33828690.14 -33828689.90 -33828689.65 0.0285 0.0057

Jupiter -97326-09-23 22:18 J -33826632.79 -33826632.57 -33826632.34 0.0543 0.0123
 Uranus -97319-10-04 00:42 J -33824065.53 -33824065.47 -33824065.36 0.0133 0.0125
 Uranus -97318-10-08 07:54 J -33823696.33 -33823696.17 -33823695.97 0.0133 0.0090
 Saturn -97317-08-09 17:30 J -33823389.95 -33823389.77 -33823389.58 0.0273 0.0174
 Uranus -97317-10-11 02:08 J -33823327.65 -33823327.41 -33823327.17 0.0134 0.0028
 Saturn -97316-08-22 06:13 J -33823012.43 -33823012.24 -33823012.03 0.0274 0.0139
 Uranus -97316-10-15 09:49 J -33822958.33 -33822958.09 -33822957.84 0.0134 0.0007
 Uranus -97315-10-19 04:32 J -33822589.52 -33822589.31 -33822589.09 0.0135 0.0069
 Uranus -97314-10-23 13:25 J -33822220.08 -33822219.94 -33822219.80 0.0135 0.0111
 Saturn -97302-01-29 09:06 J -33818104.26 -33818104.12 -33818103.97 0.0286 0.0224
 Neptune -97302-02-17 16:32 J -33818084.93 -33818084.81 -33818084.68 0.0089 0.0077
 Saturn -97301-02-12 06:56 J -33817725.41 -33817725.21 -33817725.00 0.0285 0.0149
 Neptune -97301-02-19 22:47 J -33817717.74 -33817717.55 -33817717.31 0.0089 0.0051
 Neptune -97300-02-21 19:54 J -33817349.93 -33817349.67 -33817349.40 0.0089 0.0012
 Neptune -97299-02-24 03:35 J -33816982.60 -33816982.35 -33816982.09 0.0089 0.0016
 Neptune -97298-02-26 22:18 J -33816614.78 -33816614.57 -33816614.35 0.0089 0.0053
 Mars -97298-07-22 17:44 J -33816468.99 -33816468.76 -33816468.54 0.1910 0.0353
 Neptune -97297-02-29 09:49 J -33816247.15 -33816247.09 -33816246.96 0.0089 0.0083
 Jupiter -97296-03-12 04:47 J -33815870.43 -33815870.30 -33815870.17 0.0485 0.0400
 Mars -97289-01-08 11:01 J -33813377.18 -33813377.04 -33813376.90 0.1613 0.1043
 Saturn -97287-08-17 02:37 J -33812425.64 -33812425.39 -33812425.14 0.0274 0.0002
 Jupiter -97284-03-16 07:25 J -33811483.44 -33811483.19 -33811482.95 0.0485 0.0044
 Uranus -97278-04-02 08:51 J -33809275.26 -33809275.13 -33809274.97 0.0145 0.0119
 Uranus -97277-04-07 00:56 J -33808904.69 -33808904.46 -33808904.21 0.0145 0.0065
 Uranus -97276-04-12 03:35 J -33808534.61 -33808534.35 -33808534.09 0.0145 0.0016
 Uranus -97275-04-17 19:11 J -33808163.92 -33808163.70 -33808163.47 0.0144 0.0075
 Uranus -97274-04-22 20:08 J -33807793.74 -33807793.66 -33807793.58 0.0143 0.0137
 Saturn -97272-02-05 20:37 J -33807138.90 -33807138.64 -33807138.39 0.0285 0.0010
 Jupiter -97272-03-20 22:18 J -33807095.74 -33807095.57 -33807095.40 0.0485 0.0326
 Saturn -97258-08-12 05:44 J -33801838.45 -33801838.26 -33801838.04 0.0273 0.0135

Mars -97257-01-16 05:30 J -33801681.35 -33801681.27 -33801681.20 0.1618 0.1466
 Saturn -97257-08-23 17:15 J -33801460.96 -33801460.78 -33801460.58 0.0274 0.0175
 Jupiter -97255-09-17 23:59 J -33800705.66 -33800705.50 -33800705.33 0.0544 0.0379
 Saturn -97243-01-30 22:47 J -33796552.73 -33796552.55 -33796552.36 0.0286 0.0179
 Jupiter -97243-09-23 07:25 J -33796317.40 -33796317.19 -33796316.97 0.0543 0.0066
 Saturn -97242-02-13 19:54 J -33796173.84 -33796173.67 -33796173.48 0.0285 0.0192
 Uranus -97235-10-04 09:35 J -33793384.11 -33793384.10 -33793384.04 0.0133 0.0132
 Uranus -97234-10-08 17:01 J -33793014.98 -33793014.79 -33793014.58 0.0133 0.0075
 Uranus -97233-10-11 10:47 J -33792646.27 -33792646.05 -33792645.80 0.0134 0.0041
 Uranus -97232-10-15 19:11 J -33792276.95 -33792276.70 -33792276.46 0.0134 0.0023
 Uranus -97231-10-19 13:25 J -33791908.14 -33791907.94 -33791907.70 0.0135 0.0060
 Uranus -97230-10-23 22:32 J -33791538.65 -33791538.56 -33791538.42 0.0135 0.0118
 Saturn -97229-08-05 22:47 J -33791251.57 -33791251.55 -33791251.50 0.0274 0.0271
 Saturn -97228-08-18 06:27 J -33790874.47 -33790874.23 -33790873.99 0.0274 0.0035
 Neptune -97220-08-28 03:49 J -33787942.46 -33787942.34 -33787942.16 0.0088 0.0072
 Neptune -97219-08-30 13:39 J -33787575.16 -33787574.93 -33787574.71 0.0088 0.0036
 Neptune -97218-09-01 20:37 J -33787207.90 -33787207.64 -33787207.38 0.0088 0.0008
 Neptune -97217-09-03 10:03 J -33786840.31 -33786840.08 -33786839.83 0.0088 0.0027
 Neptune -97216-09-05 12:56 J -33786473.15 -33786472.96 -33786472.74 0.0088 0.0053
 Neptune -97215-09-08 04:32 J -33786105.32 -33786105.31 -33786105.25 0.0088 0.0088
 Saturn -97213-02-08 01:11 J -33785587.69 -33785587.45 -33785587.20 0.0285 0.0032
 Jupiter -97213-03-11 01:54 J -33785555.52 -33785555.42 -33785555.33 0.0485 0.0445
 Mars -97210-01-10 14:08 J -33784520.10 -33784519.91 -33784519.73 0.1614 0.0577
 Jupiter -97201-03-15 18:13 J -33781167.97 -33781167.74 -33781167.51 0.0484 0.0077
 Saturn -97199-08-13 15:49 J -33780287.07 -33780286.84 -33780286.62 0.0273 0.0097
 Saturn -97198-08-25 20:51 J -33779909.78 -33779909.63 -33779909.46 0.0274 0.0211
 Uranus -97194-04-02 18:42 J -33778593.83 -33778593.72 -33778593.58 0.0146 0.0127
 Uranus -97193-04-07 09:49 J -33778223.34 -33778223.09 -33778222.83 0.0145 0.0046
 Uranus -97192-04-12 12:56 J -33777853.22 -33777852.96 -33777852.70 0.0145 0.0007
 Uranus -97191-04-18 04:47 J -33777482.51 -33777482.30 -33777482.07 0.0144 0.0080

Jupiter -97189-03-20 02:23 J -33776780.60 -33776780.40 -33776780.19 0.0485 0.0278
 Saturn -97184-02-01 08:08 J -33775001.37 -33775001.16 -33775000.94 0.0286 0.0136
 Saturn -97183-02-15 01:25 J -33774622.58 -33774622.44 -33774622.29 0.0285 0.0233
 Pluto -97172-04-19 23:44 J -33770540.73 -33770540.51 -33770540.27 0.0066 0.0033
 Jupiter -97172-09-17 09:06 J -33770390.23 -33770390.12 -33770389.99 0.0543 0.0454
 Pluto -97171-04-21 09:20 J -33770174.25 -33770174.11 -33770173.94 0.0067 0.0054
 Saturn -97170-08-08 01:11 J -33769700.56 -33769700.45 -33769700.31 0.0273 0.0237
 Saturn -97169-08-19 14:08 J -33769323.13 -33769322.91 -33769322.68 0.0274 0.0072
 Jupiter -97160-09-22 07:11 J -33766002.44 -33766002.20 -33766001.97 0.0543 0.0015
 Saturn -97154-02-09 08:51 J -33764036.35 -33764036.13 -33764035.89 0.0285 0.0072
 Uranus -97151-10-04 20:23 J -33762702.73 -33762702.65 -33762702.52 0.0133 0.0120
 Uranus -97150-10-09 04:18 J -33762333.51 -33762333.32 -33762333.13 0.0133 0.0084
 Uranus -97149-10-11 22:03 J -33761964.82 -33761964.58 -33761964.34 0.0134 0.0023
 Jupiter -97148-09-27 01:54 J -33761614.52 -33761614.42 -33761614.31 0.0543 0.0473
 Uranus -97148-10-16 05:59 J -33761595.50 -33761595.25 -33761595.01 0.0134 0.0011
 Uranus -97147-10-20 00:27 J -33761226.67 -33761226.48 -33761226.26 0.0135 0.0074
 Uranus -97146-10-24 09:20 J -33760857.24 -33760857.11 -33760856.97 0.0135 0.0113
 Saturn -97140-08-14 19:25 J -33758735.94 -33758735.69 -33758735.44 0.0273 0.0060
 Saturn -97139-08-26 21:35 J -33758358.69 -33758358.60 -33758358.48 0.0274 0.0246
 Neptune -97137-02-19 13:25 J -33757817.11 -33757816.94 -33757816.71 0.0089 0.0060
 Neptune -97136-02-20 22:32 J -33757449.78 -33757449.56 -33757449.31 0.0089 0.0034
 Neptune -97135-02-23 15:06 J -33757082.14 -33757081.87 -33757081.59 0.0089 0.0006
 Neptune -97134-02-26 03:35 J -33756714.57 -33756714.35 -33756714.09 0.0089 0.0032
 Neptune -97133-02-28 15:35 J -33756346.98 -33756346.85 -33756346.66 0.0089 0.0072
 Mars -97131-01-12 21:20 J -33755662.80 -33755662.61 -33755662.43 0.1615 0.0516
 Jupiter -97130-03-11 14:51 J -33755239.90 -33755239.88 -33755239.86 0.0484 0.0481
 Saturn -97125-02-03 09:20 J -33753450.35 -33753450.11 -33753449.86 0.0286 0.0096
 Saturn -97124-02-16 01:39 J -33753071.49 -33753071.43 -33753071.36 0.0285 0.0274
 Jupiter -97118-03-15 23:15 J -33750852.77 -33750852.53 -33750852.28 0.0485 0.0111
 Saturn -97111-08-09 07:11 J -33748149.35 -33748149.20 -33748149.03 0.0273 0.0203

Uranus -97110-04-03 05:59 J -33747912.40 -33747912.25 -33747912.08 0.0146 0.0112
 Saturn -97110-08-21 21:35 J -33747771.82 -33747771.60 -33747771.38 0.0274 0.0104
 Uranus -97109-04-07 19:39 J -33747541.92 -33747541.68 -33747541.43 0.0145 0.0058
 Uranus -97108-04-12 23:44 J -33747171.76 -33747171.51 -33747171.25 0.0145 0.0023
 Uranus -97107-04-18 14:51 J -33746801.09 -33746800.88 -33746800.65 0.0144 0.0080
 Jupiter -97106-03-20 07:54 J -33746465.37 -33746465.17 -33746464.97 0.0485 0.0238
 Uranus -97106-04-23 16:03 J -33746430.86 -33746430.83 -33746430.79 0.0143 0.0142
 Saturn -97096-01-27 18:13 J -33742863.83 -33742863.74 -33742863.64 0.0286 0.0260
 Saturn -97095-02-10 15:49 J -33742485.06 -33742484.84 -33742484.61 0.0285 0.0111
 Pluto -97086-10-22 21:49 J -33738943.81 -33738943.59 -33738943.36 0.0078 0.0030
 Mars -97084-01-07 08:08 J -33738501.27 -33738501.16 -33738501.06 0.1612 0.1336
 Saturn -97081-08-15 18:56 J -33737184.95 -33737184.71 -33737184.46 0.0273 0.0028
 Jupiter -97077-09-21 07:11 J -33735687.41 -33735687.20 -33735686.98 0.0544 0.0086
 Uranus -97067-10-05 06:27 J -33732021.29 -33732021.23 -33732021.13 0.0133 0.0125
 Saturn -97066-02-04 08:08 J -33731899.40 -33731899.16 -33731898.91 0.0286 0.0059
 Uranus -97066-10-09 13:39 J -33731652.14 -33731651.93 -33731651.71 0.0133 0.0069
 Jupiter -97065-09-26 15:20 J -33731299.00 -33731298.86 -33731298.72 0.0544 0.0427
 Uranus -97065-10-12 07:54 J -33731283.40 -33731283.17 -33731282.93 0.0134 0.0035
 Uranus -97064-10-16 15:49 J -33730914.08 -33730913.84 -33730913.60 0.0134 0.0028
 Uranus -97063-10-20 10:47 J -33730545.25 -33730545.05 -33730544.82 0.0135 0.0064
 Uranus -97062-10-24 19:11 J -33730175.79 -33730175.70 -33730175.57 0.0135 0.0121
 Neptune -97056-08-27 14:37 J -33728041.90 -33728041.89 -33728041.83 0.0088 0.0088
 Neptune -97055-08-29 21:20 J -33727674.81 -33727674.61 -33727674.37 0.0088 0.0049
 Neptune -97054-09-01 12:13 J -33727307.21 -33727306.99 -33727306.73 0.0088 0.0027
 Neptune -97053-09-02 15:35 J -33726940.10 -33726939.85 -33726939.60 0.0088 0.0014
 Mars -97052-01-14 23:59 J -33726805.65 -33726805.50 -33726805.34 0.1615 0.0846
 Saturn -97052-08-10 14:51 J -33726598.07 -33726597.88 -33726597.70 0.0273 0.0172
 Neptune -97052-09-05 07:39 J -33726572.40 -33726572.18 -33726571.94 0.0088 0.0037
 Saturn -97051-08-22 23:44 J -33726220.72 -33726220.51 -33726220.29 0.0274 0.0137
 Neptune -97051-09-07 10:18 J -33726205.18 -33726205.07 -33726204.93 0.0088 0.0076

Saturn -97037-01-29 22:03 J -33721312.72 -33721312.58 -33721312.43 0.0286 0.0226

Saturn -97036-02-11 15:35 J -33720934.06 -33720933.85 -33720933.62 0.0285 0.0144

Jupiter -97035-03-15 06:13 J -33720537.46 -33720537.24 -33720537.02 0.0485 0.0137

Uranus -97026-04-03 16:18 J -33717230.94 -33717230.82 -33717230.65 0.0146 0.0118

Uranus -97025-04-08 05:15 J -33716860.53 -33716860.28 -33716860.01 0.0145 0.0038

Uranus -97024-04-13 10:47 J -33716490.30 -33716490.05 -33716489.79 0.0145 0.0014

Jupiter -97023-03-19 23:01 J -33716149.77 -33716149.54 -33716149.32 0.0484 0.0205

Uranus -97023-04-19 01:39 J -33716119.63 -33716119.43 -33716119.21 0.0144 0.0087

Saturn -97022-08-17 21:20 J -33715633.84 -33715633.61 -33715633.37 0.0273 0.0007

Mars -97014-07-21 05:30 J -33712739.46 -33712739.27 -33712739.07 0.1913 0.0168

Saturn -97007-02-05 11:01 J -33710348.28 -33710348.04 -33710347.80 0.0286 0.0024

Mars -97005-01-10 04:03 J -33709644.50 -33709644.33 -33709644.16 0.1612 0.0504

97TH MILLENNIUM BCE

This is a list of transits of Moon in the 97th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-96994-09-21 20:08 J	-33705371.89	-33705371.66	-33705371.43	0.0544	0.0127		
Saturn	-96993-08-11 16:47 J	-33705047.01	-33705046.80	-33705046.58	0.0273	0.0140		
Saturn	-96992-08-23 20:51 J	-33704669.82	-33704669.63	-33704669.42	0.0274	0.0168		
Uranus	-96983-10-05 18:42 J	-33701339.84	-33701339.72	-33701339.59	0.0133	0.0113		
Jupiter	-96982-09-26 14:08 J	-33700984.07	-33700983.91	-33700983.75	0.0543	0.0367		
Uranus	-96982-10-10 01:11 J	-33700970.65	-33700970.45	-33700970.24	0.0133	0.0077		
Uranus	-96981-10-12 20:08 J	-33700601.89	-33700601.66	-33700601.42	0.0134	0.0017		

Uranus -96980-10-17 02:51 J -33700232.62 -33700232.38 -33700232.13 0.0134 0.0018
 Uranus -96979-10-20 22:18 J -33699863.75 -33699863.57 -33699863.36 0.0135 0.0079
 Saturn -96978-01-30 19:54 J -33699761.84 -33699761.67 -33699761.47 0.0286 0.0191
 Uranus -96978-10-25 05:59 J -33699494.37 -33699494.25 -33699494.12 0.0135 0.0116
 Saturn -96977-02-13 10:32 J -33699383.25 -33699383.06 -33699382.85 0.0285 0.0180
 Neptune -96973-02-18 16:47 J -33697916.93 -33697916.80 -33697916.67 0.0089 0.0076
 Neptune -96972-02-20 07:25 J -33697549.40 -33697549.19 -33697548.95 0.0089 0.0049
 Neptune -96971-02-22 22:32 J -33697181.81 -33697181.56 -33697181.31 0.0089 0.0010
 Neptune -96970-02-25 08:51 J -33696814.39 -33696814.13 -33696813.85 0.0089 0.0017
 Neptune -96969-02-28 03:35 J -33696446.53 -33696446.35 -33696446.13 0.0089 0.0056
 Neptune -96968-03-01 10:32 J -33696079.13 -33696079.06 -33696078.93 0.0089 0.0082
 Saturn -96964-08-06 12:56 J -33694459.99 -33694459.96 -33694459.90 0.0273 0.0268
 Saturn -96963-08-19 04:03 J -33694082.57 -33694082.33 -33694082.10 0.0274 0.0038
 Jupiter -96952-03-14 20:51 J -33690221.86 -33690221.63 -33690221.40 0.0484 0.0165
 Saturn -96948-02-06 15:49 J -33688797.08 -33688796.84 -33688796.60 0.0285 0.0014
 Uranus -96942-04-04 04:03 J -33686549.49 -33686549.33 -33686549.13 0.0146 0.0104
 Uranus -96941-04-08 15:20 J -33686179.11 -33686178.86 -33686178.60 0.0145 0.0049
 Jupiter -96940-03-19 00:42 J -33685834.69 -33685834.47 -33685834.25 0.0484 0.0164
 Uranus -96940-04-13 22:03 J -33685808.82 -33685808.58 -33685808.32 0.0145 0.0031
 Uranus -96939-04-19 11:30 J -33685438.22 -33685438.02 -33685437.78 0.0144 0.0086
 Mars -96935-07-25 03:49 J -33683880.50 -33683880.34 -33683880.18 0.1911 0.1361
 Saturn -96934-08-13 13:39 J -33683496.16 -33683495.93 -33683495.69 0.0273 0.0109
 Saturn -96933-08-24 20:37 J -33683118.80 -33683118.64 -33683118.47 0.0274 0.0200
 Jupiter -96928-03-23 18:42 J -33681446.79 -33681446.72 -33681446.64 0.0485 0.0459
 Mars -96926-01-11 21:35 J -33680787.78 -33680787.60 -33680787.42 0.1612 0.0137
 Pluto -96924-04-21 06:13 J -33679957.46 -33679957.24 -33679957.02 0.0066 0.0038
 Pluto -96923-04-23 05:59 J -33679590.39 -33679590.25 -33679590.09 0.0067 0.0056
 Saturn -96919-01-31 14:37 J -33678211.09 -33678210.89 -33678210.67 0.0286 0.0154
 Saturn -96918-02-14 09:06 J -33677832.27 -33677832.12 -33677831.95 0.0285 0.0213
 Jupiter -96911-09-20 12:56 J -33675057.16 -33675056.96 -33675056.75 0.0544 0.0214

Saturn -96905-08-07 19:25 J -33672908.80 -33672908.69 -33672908.56 0.0273 0.0236
 Saturn -96904-08-20 08:08 J -33672531.40 -33672531.16 -33672530.92 0.0274 0.0070
 Jupiter -96899-09-25 21:35 J -33670668.78 -33670668.60 -33670668.41 0.0544 0.0293
 Uranus -96899-10-06 05:15 J -33670658.38 -33670658.28 -33670658.16 0.0133 0.0117
 Uranus -96898-10-10 10:47 J -33670289.26 -33670289.05 -33670288.82 0.0133 0.0063
 Uranus -96897-10-13 06:42 J -33669920.45 -33669920.22 -33669919.98 0.0134 0.0028
 Uranus -96896-10-17 12:56 J -33669551.20 -33669550.96 -33669550.72 0.0134 0.0033
 Uranus -96895-10-21 09:35 J -33669182.30 -33669182.10 -33669181.89 0.0135 0.0068
 Uranus -96894-10-25 15:49 J -33668812.91 -33668812.84 -33668812.72 0.0135 0.0125
 Neptune -96891-08-29 12:27 J -33667774.11 -33667773.98 -33667773.80 0.0088 0.0070
 Neptune -96890-08-31 15:35 J -33667407.07 -33667406.85 -33667406.61 0.0088 0.0035
 Saturn -96889-02-08 18:13 J -33667245.98 -33667245.74 -33667245.48 0.0285 0.0050
 Neptune -96889-09-02 08:08 J -33667039.42 -33667039.16 -33667038.90 0.0088 0.0007
 Neptune -96888-09-04 11:44 J -33666672.23 -33666672.01 -33666671.76 0.0088 0.0027
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 Mars -96879-01-06 03:20 J -33663626.40 -33663626.36 -33663626.31 0.1610 0.1556
 Saturn -96875-08-14 14:37 J -33661945.12 -33661944.89 -33661944.66 0.0273 0.0077
 Saturn -96874-08-27 02:23 J -33661567.51 -33661567.40 -33661567.27 0.0274 0.0235
 Jupiter -96869-03-13 22:47 J -33659906.77 -33659906.55 -33659906.33 0.0485 0.0200
 Saturn -96860-02-01 14:23 J -33656660.11 -33656659.90 -33656659.68 0.0285 0.0117
 Saturn -96859-02-15 12:56 J -33656281.07 -33656280.96 -33656280.84 0.0285 0.0248
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 Jupiter -96857-03-18 18:13 J -33655518.97 -33655518.74 -33655518.51 0.0485 0.0128
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 Saturn -96846-08-09 23:30 J -33651357.68 -33651357.52 -33651357.35 0.0274 0.0202
 Jupiter -96845-03-22 23:01 J -33651131.66 -33651131.54 -33651131.42 0.0485 0.0421

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 Neptune -96808-02-19 14:51 J -33637649.05 -33637648.88 -33637648.67 0.0089 0.0059
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 Jupiter -96786-03-14 17:15 J -33629590.99 -33629590.78 -33629590.57 0.0485 0.0228
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 Jupiter -96774-03-18 18:56 J -33625203.95 -33625203.71 -33625203.47 0.0484 0.0078
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 Uranus -96771-04-20 08:08 J -33624075.36 -33624075.16 -33624074.94 0.0144 0.0090
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 Saturn -96757-08-17 05:01 J -33618842.53 -33618842.29 -33618842.05 0.0273 0.0004
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 Saturn -96742-02-05 03:35 J -33613557.60 -33613557.35 -33613557.10 0.0285 0.0036
 Jupiter -96733-09-24 02:37 J -33610038.60 -33610038.39 -33610038.18 0.0543 0.0155
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 Mars -96730-07-20 20:08 J -33609008.86 -33609008.66 -33609008.46 0.1915 0.0485
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 Uranus -96727-10-22 09:20 J -33607819.31 -33607819.11 -33607818.91 0.0135 0.0072
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 Mars -96721-01-11 12:56 J -33605912.15 -33605911.96 -33605911.76 0.1611 0.0070
 Saturn -96713-01-30 09:35 J -33602971.27 -33602971.10 -33602970.91 0.0285 0.0186
 Saturn -96712-02-12 04:18 J -33602592.51 -33602592.32 -33602592.13 0.0285 0.0171
 Jupiter -96703-03-13 15:49 J -33599276.03 -33599275.84 -33599275.63 0.0484 0.0276
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 Saturn -96698-08-19 08:37 J -33597291.39 -33597291.14 -33597290.89 0.0274 0.0034
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 Pluto -96675-04-24 11:30 J -33589007.18 -33589007.02 -33589006.81 0.0067 0.0048
 Saturn -96669-08-13 07:11 J -33586704.42 -33586704.20 -33586703.98 0.0274 0.0095
 Saturn -96668-08-25 22:32 J -33586326.69 -33586326.56 -33586326.40 0.0275 0.0218
 Jupiter -96662-09-19 02:51 J -33584111.53 -33584111.38 -33584111.24 0.0543 0.0403
 Saturn -96654-01-31 22:18 J -33581419.76 -33581419.57 -33581419.36 0.0285 0.0144
 Saturn -96653-02-14 17:44 J -33581040.90 -33581040.76 -33581040.59 0.0285 0.0215
 Mars -96651-07-24 05:15 J -33580150.42 -33580150.28 -33580150.13 0.1915 0.1189
 Jupiter -96650-09-24 02:51 J -33579723.62 -33579723.38 -33579723.15 0.0544 0.0081
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 Uranus -96646-10-11 21:35 J -33578244.82 -33578244.60 -33578244.37 0.0133 0.0062
 Uranus -96645-10-14 20:08 J -33577875.90 -33577875.66 -33577875.42 0.0134 0.0005
 Neptune -96644-02-18 15:49 J -33577748.96 -33577748.84 -33577748.68 0.0089 0.0075
 Uranus -96644-10-18 22:03 J -33577506.82 -33577506.58 -33577506.33 0.0134 0.0028
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 Uranus -96643-10-22 21:35 J -33577137.76 -33577137.60 -33577137.40 0.0135 0.0087
 Mars -96642-01-13 13:25 J -33577055.11 -33577054.94 -33577054.76 0.1611 0.0362
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 Neptune -96641-02-26 14:37 J -33576646.15 -33576645.89 -33576645.62 0.0089 0.0016
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 Saturn -96640-08-08 04:18 J -33576117.44 -33576117.32 -33576117.18 0.0274 0.0235
 Neptune -96639-03-02 15:49 J -33575910.94 -33575910.84 -33575910.71 0.0089 0.0080
 Saturn -96639-08-20 11:59 J -33575740.24 -33575740.00 -33575739.76 0.0274 0.0073

Jupiter -96638-09-29 05:30 J -33575335.35 -33575335.27 -33575335.19 0.0544 0.0503
 Saturn -96624-02-07 12:56 J -33570455.21 -33570454.96 -33570454.72 0.0285 0.0052
 Jupiter -96620-03-13 02:51 J -33568960.55 -33568960.38 -33568960.21 0.0485 0.0324
 Saturn -96610-08-15 17:59 J -33565152.98 -33565152.75 -33565152.52 0.0275 0.0058
 Saturn -96609-08-27 05:30 J -33564775.36 -33564775.27 -33564775.17 0.0275 0.0253
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 Uranus -96605-04-10 09:06 J -33563453.37 -33563453.12 -33563452.84 0.0145 0.0033
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 Uranus -96603-04-21 06:13 J -33562712.43 -33562712.24 -33562712.03 0.0144 0.0096
 Jupiter -96596-03-21 17:44 J -33560185.95 -33560185.76 -33560185.56 0.0484 0.0274
 Mars -96595-01-07 19:54 J -33559893.80 -33559893.67 -33559893.54 0.1609 0.1063
 Saturn -96595-02-02 13:11 J -33559868.17 -33559867.95 -33559867.71 0.0285 0.0099
 Saturn -96594-02-16 05:01 J -33559489.38 -33559489.29 -33559489.17 0.0284 0.0257
 Pluto -96590-10-26 00:27 J -33557776.68 -33557776.48 -33557776.23 0.0078 0.0036
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 Jupiter -96579-09-18 03:06 J -33553796.49 -33553796.37 -33553796.25 0.0544 0.0462
 Jupiter -96567-09-23 05:59 J -33549408.47 -33549408.25 -33549408.03 0.0544 0.0011
 Saturn -96566-01-27 10:18 J -33549282.17 -33549282.07 -33549281.96 0.0285 0.0257
 Saturn -96565-02-10 01:39 J -33548903.65 -33548903.43 -33548903.20 0.0285 0.0095
 Mars -96563-01-15 08:08 J -33548198.25 -33548198.16 -33548198.07 0.1611 0.1375
 Uranus -96563-10-08 07:25 J -33547932.32 -33547932.19 -33547932.02 0.0133 0.0101
 Neptune -96562-08-30 10:18 J -33547606.20 -33547606.07 -33547605.90 0.0088 0.0070
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 Uranus -96561-10-15 08:51 J -33547194.36 -33547194.13 -33547193.89 0.0134 0.0014
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 Uranus -96560-10-19 09:49 J -33546825.32 -33546825.09 -33546824.84 0.0134 0.0044
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 Jupiter -96555-09-28 05:44 J -33545020.41 -33545020.26 -33545020.10 0.0543 0.0400
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 Uranus -96475-10-24 00:13 J -33515774.65 -33515774.49 -33515774.31 0.0134 0.0093
 Uranus -96474-10-28 00:42 J -33515405.53 -33515405.47 -33515405.36 0.0135 0.0127
 Jupiter -96472-09-26 22:18 J -33514705.75 -33514705.57 -33514705.39 0.0544 0.0309
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 Jupiter -96454-03-12 06:13 J -33508330.34 -33508330.24 -33508330.14 0.0485 0.0434
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 Uranus -96435-04-22 06:13 J -33501349.40 -33501349.24 -33501349.03 0.0144 0.0104
 Saturn -96434-08-08 00:56 J -33500876.55 -33500876.46 -33500876.34 0.0274 0.0250
 Saturn -96433-08-19 12:27 J -33500499.22 -33500498.98 -33500498.74 0.0275 0.0057
 Jupiter -96430-03-20 23:01 J -33499555.76 -33499555.54 -33499555.31 0.0485 0.0170
 Pluto -96428-04-24 02:23 J -33498790.51 -33498790.40 -33498790.23 0.0066 0.0057
 Pluto -96427-04-25 22:18 J -33498423.81 -33498423.57 -33498423.31 0.0067 0.0029
 Saturn -96418-02-07 20:51 J -33495213.87 -33495213.63 -33495213.39 0.0285 0.0037
 Saturn -96404-08-14 19:54 J -33489911.90 -33489911.67 -33489911.43 0.0274 0.0078
 Saturn -96403-08-27 04:47 J -33489534.43 -33489534.30 -33489534.15 0.0274 0.0228
 Jupiter -96401-09-20 23:01 J -33488778.74 -33488778.54 -33488778.32 0.0544 0.0172
 Neptune -96397-08-31 05:44 J -33487338.44 -33487338.26 -33487338.04 0.0088 0.0051
 Neptune -96396-09-02 11:15 J -33486971.26 -33486971.03 -33486970.77 0.0088 0.0029
 Uranus -96396-10-05 09:49 J -33486938.09 -33486938.09 -33486938.06 0.0132 0.0132
 Neptune -96395-09-05 03:20 J -33486603.60 -33486603.36 -33486603.10 0.0088 0.0012

Uranus -96395-10-09 11:30 J -33486569.19 -33486569.02 -33486568.84 0.0133 0.0090
 Neptune -96394-09-07 05:59 J -33486236.47 -33486236.25 -33486236.00 0.0088 0.0034
 Uranus -96394-10-13 10:03 J -33486200.32 -33486200.08 -33486199.83 0.0133 0.0040
 Neptune -96393-09-08 21:49 J -33485868.71 -33485868.59 -33485868.42 0.0088 0.0073
 Uranus -96393-10-16 12:27 J -33485831.22 -33485830.98 -33485830.74 0.0134 0.0005
 Uranus -96392-10-20 11:01 J -33485462.27 -33485462.04 -33485461.80 0.0134 0.0051
 Uranus -96391-10-24 14:08 J -33485093.09 -33485092.91 -33485092.72 0.0134 0.0084
 Mars -96390-01-07 01:54 J -33485018.54 -33485018.42 -33485018.29 0.1609 0.1239
 Saturn -96389-02-02 06:56 J -33484627.43 -33484627.21 -33484626.98 0.0285 0.0119
 Jupiter -96389-09-26 09:06 J -33484390.33 -33484390.12 -33484389.92 0.0544 0.0235
 Saturn -96388-02-14 19:25 J -33484248.84 -33484248.69 -33484248.53 0.0285 0.0227
 Saturn -96375-08-09 06:56 J -33479325.35 -33479325.21 -33479325.04 0.0274 0.0213
 Saturn -96374-08-21 23:15 J -33478947.74 -33478947.53 -33478947.30 0.0275 0.0097
 Jupiter -96371-03-11 14:23 J -33478014.91 -33478014.90 -33478014.88 0.0485 0.0483
 Mars -96367-07-23 09:35 J -33476420.29 -33476420.10 -33476419.91 0.1917 0.0996
 Saturn -96360-01-26 18:13 J -33474040.82 -33474040.74 -33474040.64 0.0285 0.0265
 Saturn -96359-02-09 10:47 J -33473662.28 -33473662.05 -33473661.83 0.0285 0.0080
 Jupiter -96359-03-15 17:01 J -33473628.01 -33473627.79 -33473627.58 0.0485 0.0197
 Mars -96358-01-14 15:06 J -33473323.04 -33473322.87 -33473322.69 0.1609 0.0739
 Uranus -96355-04-01 23:30 J -33472149.57 -33472149.52 -33472149.41 0.0146 0.0140
 Uranus -96354-04-07 18:13 J -33471778.96 -33471778.74 -33471778.51 0.0146 0.0076
 Uranus -96353-04-11 22:18 J -33471408.84 -33471408.57 -33471408.31 0.0146 0.0005
 Uranus -96352-04-17 13:54 J -33471038.16 -33471037.92 -33471037.67 0.0145 0.0043
 Uranus -96351-04-22 18:13 J -33470667.88 -33470667.74 -33470667.56 0.0144 0.0117
 Jupiter -96347-03-20 10:47 J -33469240.28 -33469240.05 -33469239.82 0.0484 0.0128
 Saturn -96345-08-16 02:51 J -33468360.63 -33468360.38 -33468360.13 0.0274 0.0037
 Saturn -96344-08-28 08:37 J -33467983.18 -33467983.14 -33467983.08 0.0274 0.0268
 Pluto -96342-10-27 04:03 J -33467193.46 -33467193.33 -33467193.17 0.0078 0.0062
 Pluto -96341-10-28 05:15 J -33466826.39 -33466826.28 -33466826.12 0.0077 0.0066
 Saturn -96330-02-03 13:11 J -33463076.19 -33463075.95 -33463075.70 0.0285 0.0076

Saturn -96329-02-17 01:54 J -33462697.48 -33462697.42 -33462697.32 0.0285 0.0270
 Jupiter -96318-09-21 07:25 J -33458463.40 -33458463.19 -33458462.99 0.0543 0.0247
 Saturn -96316-08-10 16:47 J -33457773.98 -33457773.80 -33457773.61 0.0274 0.0174
 Neptune -96315-02-19 18:42 J -33457580.84 -33457580.72 -33457580.58 0.0089 0.0077
 Saturn -96315-08-23 10:18 J -33457396.27 -33457396.07 -33457395.85 0.0274 0.0135
 Neptune -96314-02-22 05:15 J -33457213.47 -33457213.28 -33457213.07 0.0089 0.0053
 Neptune -96313-02-24 18:13 J -33456846.00 -33456845.74 -33456845.46 0.0089 0.0013
 Neptune -96312-02-26 10:32 J -33456478.30 -33456478.06 -33456477.80 0.0089 0.0012
 Uranus -96312-10-05 23:30 J -33456256.58 -33456256.52 -33456256.42 0.0132 0.0125
 Mars -96311-01-09 07:11 J -33456161.38 -33456161.20 -33456161.02 0.1609 0.0571
 Neptune -96311-02-28 19:11 J -33456110.89 -33456110.70 -33456110.46 0.0089 0.0052
 Uranus -96311-10-10 01:54 J -33455887.60 -33455887.42 -33455887.22 0.0133 0.0082
 Neptune -96310-03-03 15:20 J -33455742.98 -33455742.86 -33455742.72 0.0089 0.0076
 Uranus -96310-10-13 23:01 J -33455518.77 -33455518.54 -33455518.29 0.0133 0.0043
 Uranus -96309-10-17 02:23 J -33455149.64 -33455149.40 -33455149.16 0.0133 0.0010
 Uranus -96308-10-20 23:59 J -33454780.74 -33454780.50 -33454780.26 0.0134 0.0042
 Uranus -96307-10-25 04:18 J -33454411.46 -33454411.32 -33454411.15 0.0134 0.0101
 Jupiter -96306-09-26 00:13 J -33454075.71 -33454075.49 -33454075.27 0.0543 0.0143
 Uranus -96306-10-29 02:51 J -33454042.41 -33454042.38 -33454042.33 0.0135 0.0133
 Saturn -96301-01-29 06:13 J -33452489.38 -33452489.24 -33452489.09 0.0285 0.0224
 Saturn -96300-02-10 23:15 J -33452110.75 -33452110.53 -33452110.31 0.0285 0.0122
 Saturn -96286-08-18 06:42 J -33446809.47 -33446809.22 -33446808.97 0.0274 0.0004
 Jupiter -96276-03-15 06:27 J -33443312.44 -33443312.23 -33443312.03 0.0484 0.0244
 Saturn -96271-02-04 17:30 J -33441525.01 -33441524.77 -33441524.52 0.0285 0.0035
 Uranus -96271-04-02 12:56 J -33441468.07 -33441467.96 -33441467.82 0.0146 0.0128
 Uranus -96270-04-08 07:11 J -33441097.43 -33441097.20 -33441096.97 0.0146 0.0065
 Uranus -96269-04-12 10:18 J -33440727.33 -33440727.07 -33440726.80 0.0146 0.0013
 Uranus -96268-04-18 02:23 J -33440356.62 -33440356.40 -33440356.16 0.0145 0.0063
 Uranus -96267-04-23 06:42 J -33439986.38 -33439986.22 -33439986.04 0.0144 0.0111
 Jupiter -96264-03-19 09:06 J -33438925.36 -33438925.12 -33438924.88 0.0484 0.0083

Saturn -96257-08-12 03:35 J -33436222.56 -33436222.35 -33436222.14 0.0274 0.0138
 Saturn -96256-08-24 15:49 J -33435845.02 -33435844.84 -33435844.63 0.0274 0.0170
 Jupiter -96252-03-23 23:44 J -33434537.58 -33434537.51 -33434537.42 0.0485 0.0453
 Saturn -96242-01-30 14:23 J -33430938.08 -33430937.90 -33430937.71 0.0285 0.0185
 Saturn -96241-02-13 03:35 J -33430559.55 -33430559.35 -33430559.13 0.0285 0.0158
 Jupiter -96235-09-19 20:37 J -33428148.81 -33428148.64 -33428148.46 0.0544 0.0343
 Neptune -96233-08-30 06:27 J -33427438.36 -33427438.23 -33427438.06 0.0088 0.0072
 Mars -96232-01-11 06:42 J -33427304.40 -33427304.22 -33427304.04 0.1608 0.0047
 Neptune -96232-09-01 23:01 J -33427070.75 -33427070.54 -33427070.30 0.0088 0.0041
 Neptune -96231-09-04 02:23 J -33426703.65 -33426703.40 -33426703.15 0.0088 0.0010
 Neptune -96230-09-06 17:59 J -33426335.99 -33426335.75 -33426335.49 0.0088 0.0021
 Neptune -96229-09-07 22:32 J -33425968.75 -33425968.56 -33425968.34 0.0088 0.0050
 Saturn -96228-08-06 23:30 J -33425635.57 -33425635.52 -33425635.44 0.0274 0.0264
 Neptune -96228-09-10 10:47 J -33425601.13 -33425601.05 -33425600.94 0.0088 0.0082
 Uranus -96228-10-06 12:27 J -33425575.05 -33425574.98 -33425574.87 0.0132 0.0123
 Saturn -96227-08-19 13:11 J -33425258.19 -33425257.95 -33425257.71 0.0274 0.0038
 Uranus -96227-10-10 16:18 J -33425206.01 -33425205.82 -33425205.63 0.0133 0.0080
 Uranus -96226-10-14 12:42 J -33424837.22 -33424836.97 -33424836.72 0.0133 0.0031
 Uranus -96225-10-17 16:47 J -33424468.04 -33424467.80 -33424467.56 0.0133 0.0004
 Uranus -96224-10-21 13:11 J -33424099.17 -33424098.95 -33424098.72 0.0134 0.0059
 Jupiter -96223-09-25 06:42 J -33423760.44 -33423760.22 -33423760.00 0.0544 0.0065
 Uranus -96223-10-25 18:27 J -33423729.90 -33423729.73 -33423729.55 0.0134 0.0091
 Saturn -96212-02-06 01:25 J -33419973.68 -33419973.44 -33419973.20 0.0285 0.0003
 Jupiter -96211-09-30 06:56 J -33419372.25 -33419372.21 -33419372.15 0.0544 0.0531
 Saturn -96198-08-14 09:35 J -33414671.33 -33414671.10 -33414670.87 0.0274 0.0103
 Saturn -96197-08-25 16:18 J -33414293.97 -33414293.82 -33414293.64 0.0274 0.0206
 Jupiter -96193-03-14 05:44 J -33412997.46 -33412997.26 -33412997.07 0.0485 0.0288
 Uranus -96187-04-03 00:27 J -33410786.58 -33410786.48 -33410786.34 0.0147 0.0130
 Uranus -96186-04-08 18:42 J -33410415.94 -33410415.72 -33410415.47 0.0146 0.0067
 Mars -96185-01-06 13:54 J -33410142.95 -33410142.92 -33410142.88 0.1609 0.1568

Uranus -96185-04-12 22:18 J -33410045.83 -33410045.57 -33410045.30 0.0146 0.0004
 Uranus -96184-04-18 15:20 J -33409675.10 -33409674.86 -33409674.61 0.0145 0.0051
 Saturn -96183-01-31 15:20 J -33409387.07 -33409386.86 -33409386.65 0.0285 0.0150
 Uranus -96183-04-23 18:27 J -33409304.85 -33409304.73 -33409304.59 0.0145 0.0125
 Saturn -96182-02-14 02:08 J -33409008.59 -33409008.41 -33409008.22 0.0285 0.0191
 Jupiter -96181-03-18 21:35 J -33408609.83 -33408609.60 -33408609.37 0.0484 0.0055
 Pluto -96179-04-27 05:59 J -33407840.51 -33407840.25 -33407839.99 0.0067 0.0010
 Jupiter -96169-03-23 05:44 J -33404222.37 -33404222.26 -33404222.13 0.0484 0.0419
 Saturn -96169-08-08 04:18 J -33404084.44 -33404084.32 -33404084.18 0.0274 0.0229
 Saturn -96168-08-20 22:03 J -33403706.80 -33403706.58 -33403706.35 0.0274 0.0075
 Mars -96153-01-13 23:59 J -33398447.64 -33398447.50 -33398447.35 0.1608 0.0837
 Saturn -96153-02-08 08:51 J -33398422.37 -33398422.13 -33398421.89 0.0285 0.0037
 Jupiter -96152-09-19 10:32 J -33397833.21 -33397833.06 -33397832.91 0.0544 0.0404
 Neptune -96150-02-21 07:54 J -33397313.32 -33397313.17 -33397312.96 0.0089 0.0066
 Neptune -96149-02-24 01:25 J -33396945.66 -33396945.44 -33396945.20 0.0089 0.0037
 Neptune -96148-02-25 08:51 J -33396578.40 -33396578.13 -33396577.87 0.0089 0.0002
 Neptune -96147-02-28 04:47 J -33396210.53 -33396210.30 -33396210.04 0.0089 0.0027
 Neptune -96146-03-02 11:15 J -33395843.20 -33395843.03 -33395842.84 0.0089 0.0064
 Uranus -96144-10-07 02:23 J -33394893.51 -33394893.40 -33394893.26 0.0132 0.0115
 Uranus -96143-10-11 06:27 J -33394524.41 -33394524.23 -33394524.01 0.0133 0.0073
 Uranus -96142-10-15 01:54 J -33394155.66 -33394155.42 -33394155.17 0.0133 0.0034
 Uranus -96141-10-18 07:11 J -33393786.43 -33393786.20 -33393785.96 0.0133 0.0019
 Jupiter -96140-09-24 09:49 J -33393445.33 -33393445.09 -33393444.86 0.0544 0.0012
 Uranus -96140-10-22 02:51 J -33393417.60 -33393417.38 -33393417.13 0.0134 0.0050
 Saturn -96139-08-15 09:20 J -33393120.36 -33393120.11 -33393119.87 0.0274 0.0067
 Uranus -96139-10-26 09:06 J -33393048.24 -33393048.12 -33393047.95 0.0134 0.0109
 Saturn -96138-08-27 17:59 J -33392742.86 -33392742.75 -33392742.62 0.0274 0.0238
 Jupiter -96128-09-29 11:30 J -33389057.12 -33389057.02 -33389056.91 0.0544 0.0474
 Saturn -96124-02-01 11:44 J -33387836.23 -33387836.01 -33387835.78 0.0285 0.0116
 Saturn -96123-02-15 02:51 J -33387457.52 -33387457.38 -33387457.22 0.0285 0.0223

Jupiter -96110-03-14 22:03 J -33382681.75 -33382681.58 -33382681.41 0.0485 0.0319
 Saturn -96110-08-10 12:27 J -33382533.14 -33382532.98 -33382532.81 0.0274 0.0194
 Saturn -96109-08-22 04:18 J -33382155.54 -33382155.32 -33382155.09 0.0274 0.0108
 Mars -96106-01-08 07:39 J -33381286.34 -33381286.18 -33381286.03 0.1608 0.0840
 Uranus -96103-04-03 14:51 J -33380105.02 -33380104.88 -33380104.72 0.0147 0.0118
 Uranus -96102-04-09 08:08 J -33379734.39 -33379734.16 -33379733.90 0.0146 0.0057
 Uranus -96101-04-13 11:44 J -33379364.28 -33379364.01 -33379363.75 0.0146 0.0005
 Uranus -96100-04-19 04:47 J -33378993.52 -33378993.30 -33378993.07 0.0145 0.0071
 Uranus -96099-04-24 07:54 J -33378623.32 -33378623.17 -33378623.01 0.0145 0.0118
 Jupiter -96098-03-19 04:03 J -33378294.58 -33378294.33 -33378294.08 0.0484 0.0025
 Saturn -96095-01-26 22:03 J -33377249.65 -33377249.58 -33377249.48 0.0285 0.0266
 Saturn -96094-02-09 10:32 J -33376871.30 -33376871.06 -33376870.81 0.0285 0.0069
 Pluto -96093-10-29 15:06 J -33376243.05 -33376242.87 -33376242.67 0.0077 0.0048
 Jupiter -96086-03-23 13:54 J -33373907.05 -33373906.92 -33373906.77 0.0484 0.0385
 Mars -96083-07-21 07:25 J -33372691.39 -33372691.19 -33372691.00 0.1918 0.0643
 Saturn -96080-08-16 09:20 J -33371569.35 -33371569.11 -33371568.86 0.0274 0.0033
 Saturn -96079-08-28 23:30 J -33371191.54 -33371191.52 -33371191.47 0.0274 0.0271
 Mars -96074-01-15 18:13 J -33369590.87 -33369590.74 -33369590.62 0.1608 0.1161
 Jupiter -96069-09-18 10:32 J -33367518.17 -33367518.06 -33367517.93 0.0543 0.0466
 Neptune -96068-08-31 22:03 J -33367170.77 -33367170.58 -33367170.38 0.0088 0.0055
 Neptune -96067-09-03 13:39 J -33366803.16 -33366802.93 -33366802.68 0.0088 0.0033
 Neptune -96066-09-05 19:54 J -33366435.91 -33366435.67 -33366435.42 0.0088 0.0007
 Saturn -96065-02-03 11:01 J -33366285.26 -33366285.04 -33366284.81 0.0285 0.0085
 Neptune -96065-09-07 06:13 J -33366068.48 -33366068.24 -33366067.98 0.0088 0.0030
 Saturn -96064-02-16 06:56 J -33365906.32 -33365906.21 -33365906.10 0.0285 0.0250
 Neptune -96064-09-09 16:47 J -33365700.94 -33365700.80 -33365700.64 0.0088 0.0069
 Uranus -96060-10-07 16:32 J -33364211.92 -33364211.81 -33364211.66 0.0132 0.0113
 Uranus -96059-10-11 21:49 J -33363842.78 -33363842.59 -33363842.37 0.0133 0.0070
 Uranus -96058-10-15 16:32 J -33363474.05 -33363473.81 -33363473.56 0.0133 0.0022
 Jupiter -96057-09-23 10:03 J -33363130.30 -33363130.08 -33363129.87 0.0544 0.0076

Uranus	-96057-10-18 22:32 J	-33363104.80	-33363104.56	-33363104.32	0.0133	0.0011
Uranus	-96056-10-22 17:15 J	-33362735.99	-33362735.78	-33362735.56	0.0134	0.0067
Uranus	-96055-10-26 23:44 J	-33362366.65	-33362366.51	-33362366.32	0.0134	0.0099
Saturn	-96051-08-11 18:13 J	-33360981.94	-33360981.74	-33360981.54	0.0274	0.0158
Saturn	-96050-08-24 04:18 J	-33360604.53	-33360604.32	-33360604.10	0.0274	0.0143
Jupiter	-96045-09-28 13:54 J	-33358742.07	-33358741.92	-33358741.75	0.0544	0.0402
Saturn	-96036-01-27 22:47 J	-33355698.68	-33355698.55	-33355698.40	0.0285	0.0231
Saturn	-96035-02-10 07:11 J	-33355320.44	-33355320.20	-33355319.96	0.0285	0.0099
Mars	-96027-01-10 05:59 J	-33352429.44	-33352429.25	-33352429.06	0.1608	0.0127
Jupiter	-96027-03-14 04:32 J	-33352366.48	-33352366.31	-33352366.14	0.0484	0.0353
Saturn	-96021-08-17 14:51 J	-33350018.12	-33350017.88	-33350017.64	0.0274	0.0002
Uranus	-96019-04-04 03:20 J	-33349423.49	-33349423.36	-33349423.20	0.0147	0.0120
Uranus	-96018-04-09 20:37 J	-33349052.87	-33349052.64	-33349052.38	0.0146	0.0057
Uranus	-96017-04-14 00:27 J	-33348682.73	-33348682.48	-33348682.22	0.0146	0.0013
Uranus	-96016-04-19 17:59 J	-33348311.98	-33348311.75	-33348311.50	0.0145	0.0060
Jupiter	-96015-03-18 12:42 J	-33347979.20	-33347978.97	-33347978.74	0.0484	0.0003
Uranus	-96015-04-24 20:23 J	-33347941.73	-33347941.65	-33347941.54	0.0145	0.0134
Saturn	-96006-02-04 14:51 J	-33344734.12	-33344733.88	-33344733.65	0.0285	0.0053
Saturn	-96005-02-18 08:37 J	-33344355.18	-33344355.14	-33344355.08	0.0285	0.0279
Jupiter	-96003-03-23 02:51 J	-33343591.54	-33343591.38	-33343591.20	0.0484	0.0355

96TH MILLENNIUM BCE

This is a list of transits of Moon in the 96th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								

TIME

Saturn -95992-08-12 16:32 J -33339431.03 -33339430.81 -33339430.57 0.0274 0.0122
Saturn -95991-08-25 01:54 J -33339053.60 -33339053.42 -33339053.23 0.0274 0.0179
Neptune -95986-02-20 16:03 J -33337412.91 -33337412.83 -33337412.70 0.0089 0.0081
Neptune -95985-02-22 22:18 J -33337045.74 -33337045.57 -33337045.34 0.0089 0.0058
Neptune -95984-02-24 18:56 J -33336677.96 -33336677.71 -33336677.45 0.0089 0.0016
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Neptune -95982-03-01 20:23 J -33335942.87 -33335942.65 -33335942.41 0.0089 0.0047
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Mars -95980-01-04 22:47 J -33335267.61 -33335267.55 -33335267.49 0.1609 0.1524
Saturn -95977-01-29 18:42 J -33334147.89 -33334147.72 -33334147.53 0.0285 0.0197
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Jupiter -95974-09-23 18:42 J -33332814.95 -33332814.72 -33332814.49 0.0544 0.0126
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Saturn -95963-08-07 01:39 J -33328844.47 -33328844.43 -33328844.36 0.0274 0.0265
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Jupiter -95962-09-28 18:56 J -33328426.87 -33328426.71 -33328426.54 0.0544 0.0368
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 Saturn -95799-02-15 23:30 J -33269115.66 -33269115.52 -33269115.36 0.0284 0.0227

Mars -95799-07-20 18:13 J -33268960.93 -33268960.74 -33268960.54 0.1919 0.0498
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 Neptune -95739-09-01 17:30 J -33247002.95 -33247002.77 -33247002.57 0.0088 0.0061
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 Neptune -95735-09-10 08:08 J -33245533.33 -33245533.16 -33245532.98 0.0088 0.0063
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 Saturn -95727-08-12 16:47 J -33242640.01 -33242639.80 -33242639.57 0.0274 0.0122
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Uranus -95722-10-18 04:32 J -33240747.55 -33240747.31 -33240747.06 0.0133 0.0003
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 Saturn -95712-01-28 20:51 J -33237356.78 -33237356.63 -33237356.45 0.0284 0.0205
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 Mars -95696-01-06 04:18 J -33231535.46 -33231535.32 -33231535.19 0.1609 0.1050
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 Saturn -95550-08-18 02:37 J -33177985.65 -33177985.39 -33177985.14 0.0275 0.0002
 Jupiter -95547-09-25 02:08 J -33176851.63 -33176851.41 -33176851.19 0.0544 0.0011
 Mars -95538-01-11 09:35 J -33173821.30 -33173821.10 -33173820.91 0.1608 0.0136
 Saturn -95535-02-03 08:23 J -33172702.38 -33172702.15 -33172701.90 0.0284 0.0082
 Jupiter -95535-09-30 05:59 J -33172463.38 -33172463.25 -33172463.11 0.0544 0.0440
 Saturn -95534-02-16 17:01 J -33172323.93 -33172323.79 -33172323.64 0.0284 0.0229
 Saturn -95521-08-11 17:30 J -33167398.97 -33167398.77 -33167398.55 0.0275 0.0133
 Saturn -95520-08-24 14:37 J -33167021.07 -33167020.89 -33167020.69 0.0275 0.0167
 Jupiter -95517-03-15 04:18 J -33166087.53 -33166087.32 -33166087.10 0.0485 0.0228
 Uranus -95516-04-01 22:47 J -33165704.64 -33165704.55 -33165704.43 0.0147 0.0135
 Uranus -95515-04-07 12:42 J -33165334.16 -33165333.97 -33165333.76 0.0147 0.0089
 Mars -95515-07-18 23:44 J -33165231.75 -33165231.51 -33165231.28 0.1919 0.0091

Uranus -95514-04-12 23:15 J -33164963.79 -33164963.53 -33164963.25 0.0146 0.0026
 Uranus -95513-04-17 08:37 J -33164593.38 -33164593.14 -33164592.89 0.0146 0.0041
 Uranus -95512-04-22 22:03 J -33164222.78 -33164222.58 -33164222.34 0.0145 0.0087
 Saturn -95506-01-29 07:54 J -33162115.31 -33162115.17 -33162115.00 0.0284 0.0211
 Saturn -95505-02-11 19:39 J -33161736.90 -33161736.68 -33161736.45 0.0284 0.0101
 Jupiter -95505-03-19 13:25 J -33161700.17 -33161699.94 -33161699.72 0.0485 0.0075
 Jupiter -95493-03-24 01:25 J -33157312.60 -33157312.44 -33157312.27 0.0484 0.0358
 Neptune -95492-02-22 03:49 J -33156977.46 -33156977.34 -33156977.19 0.0089 0.0075
 Saturn -95492-08-06 17:59 J -33156811.82 -33156811.75 -33156811.66 0.0275 0.0261
 Mars -95491-01-06 03:20 J -33156659.43 -33156659.36 -33156659.29 0.1610 0.1472
 Neptune -95491-02-24 12:42 J -33156610.18 -33156609.97 -33156609.71 0.0089 0.0043
 Saturn -95491-08-19 08:23 J -33156434.40 -33156434.15 -33156433.90 0.0275 0.0040
 Neptune -95490-02-27 07:39 J -33156242.44 -33156242.18 -33156241.93 0.0089 0.0011
 Neptune -95489-02-29 13:39 J -33155875.18 -33155874.93 -33155874.67 0.0089 0.0021
 Neptune -95488-03-03 09:49 J -33155507.28 -33155507.09 -33155506.87 0.0089 0.0054
 Neptune -95487-03-05 16:03 J -33155139.88 -33155139.83 -33155139.73 0.0089 0.0085
 Saturn -95476-02-04 17:15 J -33151151.02 -33151150.78 -33151150.53 0.0284 0.0042
 Saturn -95475-02-18 06:56 J -33150772.27 -33150772.21 -33150772.12 0.0284 0.0270
 Uranus -95473-10-08 07:54 J -33149809.28 -33149809.17 -33149809.05 0.0132 0.0116
 Uranus -95472-10-12 00:27 J -33149440.67 -33149440.48 -33149440.26 0.0132 0.0072
 Uranus -95471-10-16 06:42 J -33149071.45 -33149071.22 -33149070.97 0.0133 0.0033
 Uranus -95470-10-20 00:27 J -33148702.72 -33148702.48 -33148702.23 0.0133 0.0003
 Uranus -95469-10-23 06:42 J -33148333.45 -33148333.22 -33148332.99 0.0133 0.0054
 Uranus -95468-10-27 00:56 J -33147964.64 -33147964.46 -33147964.26 0.0134 0.0083
 Jupiter -95464-09-24 01:25 J -33146536.68 -33146536.44 -33146536.21 0.0543 0.0071
 Saturn -95462-08-14 06:56 J -33145847.43 -33145847.21 -33145846.98 0.0275 0.0093
 Saturn -95461-08-25 23:44 J -33145469.67 -33145469.51 -33145469.33 0.0275 0.0203
 Mars -95459-01-13 12:42 J -33144964.13 -33144963.97 -33144963.82 0.1607 0.0857
 Jupiter -95452-09-28 22:32 J -33142148.73 -33142148.56 -33142148.39 0.0543 0.0345
 Saturn -95447-01-30 21:20 J -33140563.80 -33140563.61 -33140563.41 0.0284 0.0172

Saturn -95446-02-13 05:01 J -33140185.51 -33140185.29 -33140185.06 0.0284 0.0137
 Mars -95436-07-23 14:08 J -33136372.02 -33136371.91 -33136371.79 0.1920 0.1628
 Jupiter -95434-03-15 10:03 J -33135772.27 -33135772.08 -33135771.89 0.0485 0.0272
 Pluto -95434-05-02 11:15 J -33135724.28 -33135724.03 -33135723.76 0.0067 0.0020
 Saturn -95433-08-08 00:27 J -33135260.63 -33135260.48 -33135260.33 0.0275 0.0220
 Uranus -95432-04-02 11:15 J -33135023.06 -33135023.03 -33135022.95 0.0147 0.0144
 Saturn -95432-08-20 18:13 J -33134882.97 -33134882.74 -33134882.50 0.0275 0.0078
 Uranus -95431-04-08 02:37 J -33134652.59 -33134652.39 -33134652.16 0.0147 0.0074
 Uranus -95430-04-13 12:13 J -33134282.26 -33134281.99 -33134281.72 0.0146 0.0019
 Uranus -95429-04-17 23:01 J -33133911.79 -33133911.54 -33133911.29 0.0146 0.0035
 Uranus -95428-04-23 11:15 J -33133541.19 -33133541.03 -33133540.82 0.0145 0.0106
 Jupiter -95422-03-19 20:23 J -33131384.90 -33131384.65 -33131384.40 0.0485 0.0021
 Saturn -95417-02-07 06:56 J -33129599.45 -33129599.21 -33129598.98 0.0284 0.0007
 Mars -95412-01-08 00:13 J -33127802.65 -33127802.49 -33127802.32 0.1609 0.0557
 Jupiter -95410-03-24 00:42 J -33126997.64 -33126997.47 -33126997.28 0.0484 0.0306
 Neptune -95410-09-02 18:27 J -33126834.89 -33126834.73 -33126834.54 0.0088 0.0065
 Neptune -95409-09-03 23:01 J -33126467.75 -33126467.54 -33126467.31 0.0088 0.0042
 Neptune -95408-09-06 13:39 J -33126100.20 -33126099.93 -33126099.67 0.0088 0.0003
 Neptune -95407-09-08 21:49 J -33125732.82 -33125732.59 -33125732.34 0.0088 0.0020
 Neptune -95406-09-11 06:42 J -33125365.40 -33125365.22 -33125365.00 0.0088 0.0058
 Neptune -95405-09-12 19:39 J -33124997.77 -33124997.68 -33124997.56 0.0088 0.0080
 Saturn -95403-08-15 15:35 J -33124296.09 -33124295.85 -33124295.60 0.0275 0.0058
 Saturn -95402-08-28 02:51 J -33123918.49 -33123918.38 -33123918.24 0.0275 0.0238
 Uranus -95389-10-08 21:49 J -33119127.72 -33119127.59 -33119127.41 0.0132 0.0104
 Saturn -95388-02-01 02:37 J -33119012.60 -33119012.39 -33119012.16 0.0284 0.0137
 Uranus -95388-10-12 15:49 J -33118759.04 -33118758.84 -33118758.63 0.0132 0.0070
 Saturn -95387-02-14 09:06 J -33118634.31 -33118634.12 -33118633.91 0.0284 0.0170
 Uranus -95387-10-16 21:20 J -33118389.84 -33118389.61 -33118389.36 0.0133 0.0031
 Uranus -95386-10-20 15:20 J -33118021.09 -33118020.86 -33118020.61 0.0133 0.0015
 Uranus -95385-10-23 21:06 J -33117651.85 -33117651.62 -33117651.39 0.0133 0.0047

Uranus -95384-10-27 15:20 J -33117283.00 -33117282.86 -33117282.68 0.0134 0.0101
 Uranus -95383-10-31 21:35 J -33116913.66 -33116913.60 -33116913.51 0.0134 0.0127
 Jupiter -95381-09-22 18:27 J -33116221.94 -33116221.73 -33116221.52 0.0543 0.0163
 Mars -95380-01-15 07:39 J -33116107.28 -33116107.18 -33116107.08 0.1607 0.1318
 Saturn -95374-08-10 09:20 J -33113709.28 -33113709.11 -33113708.92 0.0275 0.0183
 Saturn -95373-08-22 07:11 J -33113331.41 -33113331.20 -33113330.98 0.0274 0.0115
 Jupiter -95369-09-28 04:03 J -33111833.53 -33111833.33 -33111833.13 0.0544 0.0262
 Saturn -95359-01-26 08:37 J -33108426.19 -33108426.14 -33108426.07 0.0284 0.0274
 Saturn -95358-02-08 19:25 J -33108047.92 -33108047.69 -33108047.45 0.0284 0.0030
 Jupiter -95351-03-14 17:59 J -33105456.93 -33105456.75 -33105456.56 0.0485 0.0315
 Uranus -95348-04-02 22:32 J -33104341.68 -33104341.56 -33104341.39 0.0147 0.0124
 Pluto -95348-11-03 23:59 J -33104126.64 -33104126.50 -33104126.30 0.0077 0.0059
 Uranus -95347-04-08 14:37 J -33103971.09 -33103970.89 -33103970.66 0.0147 0.0079
 Uranus -95346-04-13 22:32 J -33103600.82 -33103600.56 -33103600.28 0.0146 0.0015
 Uranus -95345-04-18 10:18 J -33103230.30 -33103230.07 -33103229.82 0.0146 0.0049
 Uranus -95344-04-23 21:06 J -33102859.81 -33102859.62 -33102859.39 0.0145 0.0094
 Saturn -95344-08-16 18:56 J -33102744.96 -33102744.71 -33102744.45 0.0275 0.0020
 Saturn -95343-08-29 07:25 J -33102367.21 -33102367.19 -33102367.15 0.0275 0.0272
 Jupiter -95339-03-18 20:37 J -33101069.88 -33101069.64 -33101069.41 0.0485 0.0032
 Mars -95333-01-10 16:18 J -33098946.00 -33098945.82 -33098945.65 0.1608 0.0119
 Saturn -95329-02-03 04:47 J -33097461.53 -33097461.30 -33097461.07 0.0284 0.0105
 Saturn -95328-02-15 15:49 J -33097083.00 -33097082.84 -33097082.67 0.0284 0.0202
 Neptune -95328-02-21 03:20 J -33097077.39 -33097077.36 -33097077.29 0.0089 0.0087
 Neptune -95327-02-23 22:18 J -33096709.71 -33096709.57 -33096709.36 0.0089 0.0065
 Jupiter -95327-03-23 12:42 J -33096682.17 -33096681.97 -33096681.77 0.0485 0.0262
 Neptune -95326-02-26 04:32 J -33096342.55 -33096342.31 -33096342.05 0.0089 0.0024
 Neptune -95325-02-29 00:42 J -33095974.73 -33095974.47 -33095974.20 0.0089 0.0001
 Neptune -95324-03-02 07:39 J -33095607.39 -33095607.18 -33095606.94 0.0089 0.0040
 Neptune -95323-03-05 00:56 J -33095239.62 -33095239.46 -33095239.24 0.0089 0.0063
 Saturn -95315-08-11 20:37 J -33092157.83 -33092157.64 -33092157.43 0.0275 0.0145

Saturn	-95314-08-24 16:47 J	-33091780.00	-33091779.80	-33091779.59	0.0274	0.0150
Uranus	-95305-10-09 11:30 J	-33088446.16	-33088446.02	-33088445.87	0.0132	0.0106
Uranus	-95304-10-13 05:30 J	-33088077.47	-33088077.27	-33088077.05	0.0132	0.0063
Uranus	-95303-10-17 10:32 J	-33087708.31	-33087708.06	-33087707.81	0.0133	0.0024
Uranus	-95302-10-21 05:30 J	-33087339.51	-33087339.27	-33087339.03	0.0133	0.0012
Uranus	-95301-10-24 10:18 J	-33086970.28	-33086970.07	-33086969.83	0.0133	0.0062
Saturn	-95300-01-27 18:13 J	-33086874.87	-33086874.74	-33086874.62	0.0284	0.0239
Uranus	-95300-10-28 06:27 J	-33086601.40	-33086601.23	-33086601.05	0.0134	0.0091
Saturn	-95299-02-10 01:11 J	-33086496.70	-33086496.45	-33086496.21	0.0284	0.0062
Jupiter	-95298-09-23 05:01 J	-33085906.50	-33085906.29	-33085906.07	0.0543	0.0214
Mars	-95286-01-05 02:51 J	-33081784.48	-33081784.38	-33081784.28	0.1612	0.1323
Jupiter	-95286-09-28 01:39 J	-33081518.63	-33081518.43	-33081518.21	0.0543	0.0201
Saturn	-95285-08-17 22:32 J	-33081193.81	-33081193.56	-33081193.31	0.0275	0.0015
Saturn	-95270-02-04 08:51 J	-33075910.35	-33075910.13	-33075909.89	0.0284	0.0074
Saturn	-95269-02-18 00:13 J	-33075531.62	-33075531.49	-33075531.35	0.0284	0.0231
Jupiter	-95268-03-13 19:39 J	-33075141.83	-33075141.68	-33075141.52	0.0485	0.0358
Uranus	-95264-04-03 10:18 J	-33073660.16	-33073660.07	-33073659.94	0.0147	0.0134
Uranus	-95263-04-09 03:35 J	-33073289.58	-33073289.35	-33073289.12	0.0147	0.0063
Uranus	-95262-04-14 10:18 J	-33072919.33	-33072919.07	-33072918.79	0.0146	0.0011
Uranus	-95261-04-18 23:30 J	-33072548.75	-33072548.52	-33072548.27	0.0146	0.0044
Uranus	-95260-04-24 09:20 J	-33072178.27	-33072178.11	-33072177.92	0.0145	0.0112
Jupiter	-95256-03-18 12:27 J	-33070754.21	-33070753.98	-33070753.74	0.0485	0.0073
Saturn	-95256-08-13 05:59 J	-33070606.47	-33070606.25	-33070606.02	0.0275	0.0107
Saturn	-95255-08-25 19:54 J	-33070228.85	-33070228.67	-33070228.47	0.0274	0.0182
Mars	-95254-01-12 11:30 J	-33070089.19	-33070089.02	-33070088.85	0.1608	0.0568
Neptune	-95246-09-01 19:54 J	-33066934.74	-33066934.67	-33066934.57	0.0088	0.0083
Neptune	-95245-09-03 08:51 J	-33066567.32	-33066567.13	-33066566.92	0.0088	0.0057
Jupiter	-95244-03-22 13:39 J	-33066367.15	-33066366.93	-33066366.72	0.0484	0.0221
Neptune	-95244-09-05 18:27 J	-33066199.96	-33066199.73	-33066199.48	0.0088	0.0022
Neptune	-95243-09-08 02:37 J	-33065832.65	-33065832.39	-33065832.12	0.0088	0.0004

Neptune -95242-09-10 16:47 J -33065465.00 -33065464.80 -33065464.56 0.0088 0.0040
 Saturn -95241-01-29 21:06 J -33065323.78 -33065323.62 -33065323.44 0.0284 0.0206
 Neptune -95241-09-11 20:37 J -33065097.79 -33065097.64 -33065097.44 0.0088 0.0066
 Saturn -95240-02-11 00:42 J -33064945.71 -33064945.47 -33064945.23 0.0284 0.0090
 Mars -95231-07-17 12:42 J -33061502.15 -33061501.97 -33061501.80 0.1917 0.0783
 Saturn -95227-08-07 07:11 J -33060020.31 -33060020.20 -33060020.08 0.0275 0.0241
 Saturn -95226-08-20 05:30 J -33059642.50 -33059642.27 -33059642.04 0.0274 0.0050
 Uranus -95221-10-10 00:56 J -33057764.62 -33057764.46 -33057764.27 0.0132 0.0094
 Uranus -95220-10-13 20:23 J -33057395.86 -33057395.65 -33057395.44 0.0132 0.0062
 Uranus -95219-10-18 00:27 J -33057026.73 -33057026.48 -33057026.23 0.0132 0.0021
 Uranus -95218-10-21 19:54 J -33056657.90 -33056657.67 -33056657.43 0.0133 0.0023
 Uranus -95217-10-24 23:44 J -33056288.73 -33056288.51 -33056288.27 0.0133 0.0055
 Uranus -95216-10-28 20:23 J -33055919.78 -33055919.65 -33055919.50 0.0134 0.0108
 Jupiter -95215-09-22 01:39 J -33055591.62 -33055591.43 -33055591.24 0.0543 0.0277
 Uranus -95215-11-02 00:42 J -33055550.47 -33055550.47 -33055550.44 0.0134 0.0134
 Saturn -95211-02-05 14:23 J -33054359.13 -33054358.90 -33054358.66 0.0284 0.0047
 Saturn -95210-02-19 04:18 J -33053980.42 -33053980.32 -33053980.21 0.0284 0.0256
 Mars -95207-01-07 03:20 J -33052927.51 -33052927.36 -33052927.21 0.1611 0.0993
 Jupiter -95203-09-27 06:42 J -33051203.44 -33051203.22 -33051203.00 0.0544 0.0111
 Saturn -95197-08-14 08:08 J -33049055.41 -33049055.16 -33049054.91 0.0275 0.0069
 Saturn -95196-08-26 20:08 J -33048677.81 -33048677.66 -33048677.50 0.0274 0.0216
 Jupiter -95191-10-02 03:35 J -33046815.41 -33046815.35 -33046815.28 0.0544 0.0519
 Pluto -95186-05-03 07:11 J -33045141.46 -33045141.20 -33045140.94 0.0067 0.0010
 Jupiter -95185-03-13 12:13 J -33044826.12 -33044825.99 -33044825.85 0.0485 0.0394
 Saturn -95182-01-30 18:13 J -33043772.92 -33043772.74 -33043772.54 0.0284 0.0179
 Saturn -95181-02-13 01:11 J -33043394.67 -33043394.45 -33043394.23 0.0284 0.0118
 Uranus -95180-04-03 20:51 J -33042978.78 -33042978.63 -33042978.45 0.0147 0.0114
 Uranus -95179-04-09 14:23 J -33042608.12 -33042607.90 -33042607.67 0.0147 0.0070
 Uranus -95178-04-14 19:39 J -33042237.95 -33042237.68 -33042237.41 0.0146 0.0005
 Uranus -95177-04-19 09:49 J -33041867.32 -33041867.09 -33041866.85 0.0146 0.0055

Uranus -95176-04-24 17:30 J -33041496.95 -33041496.77 -33041496.55 0.0145 0.0100
 Mars -95175-01-14 14:08 J -33041232.03 -33041231.91 -33041231.79 0.1607 0.1257
 Jupiter -95173-03-17 13:54 J -33040439.15 -33040438.92 -33040438.68 0.0485 0.0117
 Saturn -95168-08-08 14:08 J -33038469.05 -33038468.91 -33038468.74 0.0275 0.0206
 Saturn -95167-08-21 13:11 J -33038091.17 -33038090.95 -33038090.71 0.0274 0.0085
 Neptune -95163-02-22 20:51 J -33036809.72 -33036809.63 -33036809.49 0.0089 0.0079
 Neptune -95162-02-25 16:18 J -33036442.04 -33036441.82 -33036441.58 0.0089 0.0045
 Neptune -95161-02-28 00:13 J -33036074.73 -33036074.49 -33036074.23 0.0089 0.0015
 Jupiter -95161-03-22 04:03 J -33036051.54 -33036051.33 -33036051.11 0.0485 0.0190
 Neptune -95160-03-01 15:35 J -33035707.10 -33035706.85 -33035706.58 0.0089 0.0019
 Neptune -95159-03-04 04:18 J -33035339.52 -33035339.32 -33035339.11 0.0089 0.0050
 Neptune -95158-03-06 15:49 J -33034971.94 -33034971.84 -33034971.74 0.0089 0.0082
 Saturn -95152-02-06 15:49 J -33032808.08 -33032807.84 -33032807.59 0.0284 0.0018
 Mars -95152-07-21 08:51 J -33032643.31 -33032643.13 -33032642.95 0.1920 0.1129
 Saturn -95151-02-20 00:56 J -33032429.49 -33032429.46 -33032429.42 0.0284 0.0281
 Saturn -95138-08-16 06:42 J -33027504.47 -33027504.22 -33027503.97 0.0275 0.0033
 Uranus -95138-10-07 09:35 J -33027452.15 -33027452.10 -33027452.02 0.0132 0.0127
 Saturn -95137-08-27 23:15 J -33027126.63 -33027126.53 -33027126.43 0.0275 0.0248
 Uranus -95137-10-10 13:11 J -33027083.11 -33027082.95 -33027082.78 0.0132 0.0098
 Uranus -95136-10-14 09:06 J -33026714.33 -33026714.12 -33026713.89 0.0132 0.0055
 Uranus -95135-10-18 12:27 J -33026345.23 -33026344.98 -33026344.72 0.0132 0.0016
 Uranus -95134-10-22 09:35 J -33025976.34 -33025976.10 -33025975.86 0.0133 0.0021
 Uranus -95133-10-25 12:27 J -33025607.18 -33025606.98 -33025606.75 0.0133 0.0069
 Jupiter -95132-09-21 07:54 J -33025276.34 -33025276.17 -33025276.00 0.0543 0.0357
 Uranus -95132-10-29 10:32 J -33025238.21 -33025238.06 -33025237.88 0.0134 0.0098
 Mars -95128-01-09 09:20 J -33024070.31 -33024070.11 -33024069.92 0.1610 0.0063
 Saturn -95123-01-31 17:44 J -33022221.96 -33022221.76 -33022221.56 0.0284 0.0150
 Saturn -95122-02-14 05:30 J -33021843.46 -33021843.27 -33021843.06 0.0284 0.0147
 Jupiter -95120-09-26 07:11 J -33020888.43 -33020888.20 -33020887.96 0.0544 0.0056
 Saturn -95109-08-09 21:06 J -33016917.80 -33016917.62 -33016917.42 0.0275 0.0170

Saturn -95108-08-22 15:20 J -33016540.08 -33016539.86 -33016539.63 0.0274 0.0117
 Jupiter -95108-10-01 16:32 J -33016499.91 -33016499.81 -33016499.71 0.0544 0.0483
 Jupiter -95102-03-13 13:39 J -33014511.03 -33014510.93 -33014510.82 0.0486 0.0434
 Pluto -95100-11-04 21:49 J -33013543.83 -33013543.59 -33013543.34 0.0077 0.0009
 Uranus -95096-04-04 07:25 J -33012297.30 -33012297.19 -33012297.04 0.0147 0.0126
 Uranus -95095-04-10 01:39 J -33011926.66 -33011926.43 -33011926.18 0.0147 0.0055
 Saturn -95094-01-26 08:37 J -33011635.14 -33011635.14 -33011635.12 0.0284 0.0284
 Uranus -95094-04-15 06:27 J -33011556.49 -33011556.23 -33011555.96 0.0146 0.0005
 Saturn -95093-02-08 11:30 J -33011257.27 -33011257.02 -33011256.77 0.0284 0.0007
 Uranus -95093-04-19 22:03 J -33011185.82 -33011185.58 -33011185.34 0.0146 0.0050
 Uranus -95092-04-25 04:32 J -33010815.45 -33010815.31 -33010815.12 0.0145 0.0117
 Jupiter -95090-03-18 05:30 J -33010123.49 -33010123.27 -33010123.05 0.0485 0.0155
 Neptune -95081-09-02 16:32 J -33006666.95 -33006666.81 -33006666.64 0.0088 0.0068
 Neptune -95080-09-04 23:15 J -33006299.74 -33006299.53 -33006299.28 0.0088 0.0044
 Saturn -95079-08-17 10:18 J -33005953.31 -33005953.07 -33005952.83 0.0275 0.0003
 Neptune -95079-09-07 15:06 J -33005932.12 -33005931.87 -33005931.62 0.0088 0.0005
 Jupiter -95078-03-22 11:59 J -33005736.24 -33005736.00 -33005735.77 0.0485 0.0164
 Neptune -95078-09-09 18:27 J -33005564.97 -33005564.73 -33005564.47 0.0088 0.0018
 Neptune -95077-09-11 11:01 J -33005197.22 -33005197.04 -33005196.82 0.0088 0.0055
 Neptune -95076-09-13 14:23 J -33004830.00 -33004829.90 -33004829.76 0.0088 0.0078
 Saturn -95064-02-01 22:03 J -33000670.79 -33000670.58 -33000670.37 0.0284 0.0125
 Saturn -95063-02-15 09:35 J -33000292.29 -33000292.10 -33000291.90 0.0284 0.0172
 Uranus -95053-10-11 01:39 J -32996401.61 -32996401.43 -32996401.22 0.0132 0.0086
 Uranus -95052-10-14 23:01 J -32996032.75 -32996032.54 -32996032.32 0.0132 0.0055
 Uranus -95051-10-19 00:56 J -32995663.71 -32995663.46 -32995663.20 0.0133 0.0014
 Saturn -95050-08-11 22:32 J -32995366.78 -32995366.56 -32995366.33 0.0275 0.0136
 Uranus -95050-10-22 22:47 J -32995294.78 -32995294.55 -32995294.31 0.0133 0.0030
 Mars -95049-01-12 10:18 J -32995213.25 -32995213.07 -32995212.89 0.1609 0.0360
 Saturn -95049-08-23 12:42 J -32994989.18 -32994988.97 -32994988.75 0.0274 0.0148
 Jupiter -95049-09-20 10:03 J -32994961.24 -32994961.08 -32994960.92 0.0543 0.0400

Uranus	-95049-10-26 00:42 J	-32994925.69	-32994925.47	-32994925.24	0.0133	0.0062
Uranus	-95048-10-29 23:44 J	-32994556.62	-32994556.51	-32994556.37	0.0134	0.0113
Jupiter	-95037-09-25 18:42 J	-32990572.94	-32990572.72	-32990572.50	0.0543	0.0009
Saturn	-95035-01-27 03:20 J	-32990084.44	-32990084.36	-32990084.25	0.0284	0.0260
Saturn	-95034-02-09 07:25 J	-32989706.44	-32989706.19	-32989705.95	0.0284	0.0032
Jupiter	-95025-09-30 14:37 J	-32986185.04	-32986184.89	-32986184.72	0.0544	0.0400
Saturn	-95021-08-05 13:54 J	-32984779.99	-32984779.92	-32984779.83	0.0276	0.0259
Saturn	-95020-08-18 16:32 J	-32984402.04	-32984401.81	-32984401.57	0.0275	0.0033
Jupiter	-95019-03-13 07:25 J	-32984195.24	-32984195.19	-32984195.13	0.0486	0.0470
Uranus	-95012-04-04 17:30 J	-32981615.93	-32981615.77	-32981615.58	0.0147	0.0107
Uranus	-95011-04-10 11:15 J	-32981245.25	-32981245.03	-32981244.78	0.0147	0.0064
Uranus	-95010-04-15 15:06 J	-32980875.14	-32980874.87	-32980874.60	0.0146	0.0002
Uranus	-95009-04-20 07:11 J	-32980504.42	-32980504.20	-32980503.96	0.0146	0.0060
Uranus	-95008-04-25 12:56 J	-32980134.14	-32980133.96	-32980133.77	0.0145	0.0104
Jupiter	-95007-03-17 11:59 J	-32979808.22	-32979808.00	-32979807.77	0.0485	0.0189
Saturn	-95005-02-04 02:51 J	-32979119.60	-32979119.38	-32979119.15	0.0283	0.0097
Saturn	-95004-02-16 09:20 J	-32978741.27	-32978741.11	-32978740.92	0.0284	0.0200
Mars	-95002-01-06 20:08 J	-32978051.81	-32978051.66	-32978051.51	0.1613	0.0821

95TH MILLENNIUM BCE

This is a list of transits of Moon in the 95th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Neptune	-94999-02-22 08:23 J	-32976909.15	-32976909.15	-32976909.11	0.0089	0.0089
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Neptune -94998-02-24 17:44 J -32976541.90 -32976541.76 -32976541.57 0.0089 0.0066
 Neptune -94997-02-27 07:54 J -32976174.41 -32976174.17 -32976173.90 0.0089 0.0026
 Neptune -94996-02-28 22:32 J -32975806.81 -32975806.56 -32975806.31 0.0089 0.0003
 Neptune -94995-03-03 07:39 J -32975439.42 -32975439.18 -32975438.93 0.0089 0.0038
 Jupiter -94995-03-21 22:18 J -32975420.79 -32975420.57 -32975420.35 0.0484 0.0135
 Neptune -94994-03-06 01:39 J -32975071.59 -32975071.43 -32975071.22 0.0089 0.0061
 Saturn -94991-08-12 20:51 J -32973815.86 -32973815.63 -32973815.39 0.0275 0.0103
 Saturn -94990-08-25 14:23 J -32973438.07 -32973437.90 -32973437.71 0.0275 0.0179
 Saturn -94976-01-28 01:11 J -32968533.57 -32968533.45 -32968533.30 0.0283 0.0236
 Saturn -94975-02-10 10:03 J -32968155.31 -32968155.08 -32968154.85 0.0284 0.0058
 Mars -94970-01-14 04:18 J -32966356.45 -32966356.32 -32966356.18 0.1608 0.1033
 Uranus -94970-10-08 11:15 J -32966089.11 -32966089.03 -32966088.91 0.0132 0.0119
 Uranus -94969-10-11 12:42 J -32965720.15 -32965719.97 -32965719.78 0.0132 0.0091
 Uranus -94968-10-15 11:30 J -32965351.24 -32965351.02 -32965350.79 0.0132 0.0046
 Uranus -94967-10-19 12:27 J -32964982.23 -32964981.98 -32964981.72 0.0133 0.0010
 Jupiter -94966-09-20 14:37 J -32964645.98 -32964645.89 -32964645.79 0.0542 0.0484
 Uranus -94966-10-23 12:13 J -32964613.22 -32964612.99 -32964612.76 0.0133 0.0028
 Uranus -94965-10-26 12:56 J -32964244.15 -32964243.96 -32964243.73 0.0133 0.0075
 Uranus -94964-10-30 13:25 J -32963875.08 -32963874.94 -32963874.78 0.0134 0.0103
 Saturn -94962-08-07 20:08 J -32963228.78 -32963228.66 -32963228.51 0.0276 0.0226
 Saturn -94961-08-19 19:54 J -32962850.91 -32962850.67 -32962850.42 0.0275 0.0063
 Jupiter -94954-09-25 14:37 J -32960258.12 -32960257.89 -32960257.65 0.0543 0.0094
 Mars -94947-07-16 12:27 J -32957772.16 -32957771.98 -32957771.81 0.1916 0.1207
 Saturn -94946-02-05 03:06 J -32957568.61 -32957568.37 -32957568.12 0.0283 0.0070
 Saturn -94945-02-18 08:08 J -32957190.31 -32957190.16 -32957190.01 0.0284 0.0225
 Jupiter -94942-09-30 17:30 J -32955869.94 -32955869.77 -32955869.60 0.0544 0.0348
 Pluto -94938-05-04 04:18 J -32954558.43 -32954558.32 -32954558.13 0.0066 0.0056
 Pluto -94937-05-04 23:59 J -32954191.70 -32954191.50 -32954191.25 0.0067 0.0034
 Saturn -94932-08-13 23:30 J -32952264.75 -32952264.52 -32952264.28 0.0275 0.0071
 Saturn -94931-08-26 22:03 J -32951886.73 -32951886.58 -32951886.42 0.0275 0.0208

Uranus	-94928-04-05 04:03 J	-32950934.47	-32950934.33	-32950934.17	0.0147	0.0118
Uranus	-94927-04-10 22:18 J	-32950563.81	-32950563.57	-32950563.32	0.0147	0.0047
Uranus	-94926-04-16 01:54 J	-32950193.68	-32950193.42	-32950193.15	0.0146	0.0001
Uranus	-94925-04-20 18:42 J	-32949822.94	-32949822.72	-32949822.47	0.0146	0.0056
Jupiter	-94924-03-16 21:20 J	-32949492.81	-32949492.61	-32949492.41	0.0485	0.0229
Uranus	-94924-04-25 23:30 J	-32949452.67	-32949452.52	-32949452.36	0.0145	0.0120
Mars	-94923-01-08 12:27 J	-32949195.14	-32949194.98	-32949194.81	0.1611	0.0562
Saturn	-94917-01-30 07:25 J	-32946982.33	-32946982.19	-32946982.02	0.0283	0.0207
Neptune	-94917-09-01 20:08 J	-32946766.72	-32946766.66	-32946766.54	0.0088	0.0083
Saturn	-94916-02-11 17:15 J	-32946604.01	-32946603.78	-32946603.55	0.0284	0.0086
Neptune	-94916-09-04 13:11 J	-32946399.12	-32946398.95	-32946398.74	0.0088	0.0059
Neptune	-94915-09-06 17:01 J	-32946032.03	-32946031.79	-32946031.54	0.0088	0.0022
Neptune	-94914-09-09 10:03 J	-32945664.34	-32945664.08	-32945663.82	0.0088	0.0003
Neptune	-94913-09-10 14:08 J	-32945297.12	-32945296.91	-32945296.67	0.0088	0.0039
Jupiter	-94912-03-21 09:06 J	-32945105.36	-32945105.12	-32945104.88	0.0485	0.0106
Neptune	-94912-09-13 03:49 J	-32944929.49	-32944929.34	-32944929.13	0.0088	0.0065
Saturn	-94903-08-09 00:56 J	-32941677.63	-32941677.46	-32941677.28	0.0276	0.0193
Saturn	-94902-08-21 18:56 J	-32941299.94	-32941299.71	-32941299.46	0.0276	0.0093
Jupiter	-94900-03-25 13:25 J	-32940718.00	-32940717.94	-32940717.86	0.0485	0.0461
Saturn	-94887-02-06 03:20 J	-32936017.60	-32936017.36	-32936017.11	0.0283	0.0042
Saturn	-94886-02-19 12:13 J	-32935639.08	-32935638.99	-32935638.87	0.0284	0.0256
Uranus	-94886-10-09 00:27 J	-32935407.52	-32935407.48	-32935407.40	0.0132	0.0127
Uranus	-94885-10-12 00:42 J	-32935038.66	-32935038.47	-32935038.25	0.0132	0.0078
Uranus	-94884-10-16 00:27 J	-32934669.69	-32934669.48	-32934669.25	0.0132	0.0048
Uranus	-94883-10-20 00:13 J	-32934300.74	-32934300.49	-32934300.23	0.0133	0.0005
Uranus	-94882-10-24 00:42 J	-32933931.69	-32933931.47	-32933931.23	0.0133	0.0036
Uranus	-94881-10-27 00:13 J	-32933562.69	-32933562.49	-32933562.26	0.0133	0.0068
Uranus	-94880-10-31 02:23 J	-32933193.51	-32933193.40	-32933193.29	0.0134	0.0117
Saturn	-94873-08-15 07:54 J	-32930713.40	-32930713.17	-32930712.93	0.0275	0.0039
Saturn	-94872-08-28 05:30 J	-32930335.38	-32930335.27	-32930335.14	0.0275	0.0238

Jupiter -94871-09-24 20:08 J -32929942.87 -32929942.66 -32929942.44 0.0543 0.0153
 Mars -94868-07-20 11:15 J -32928913.19 -32928913.03 -32928912.87 0.1918 0.1078
 Jupiter -94859-09-30 05:30 J -32925554.46 -32925554.27 -32925554.08 0.0544 0.0298
 Saturn -94858-01-31 16:18 J -32925431.00 -32925430.82 -32925430.62 0.0283 0.0176
 Saturn -94857-02-13 21:49 J -32925052.81 -32925052.59 -32925052.36 0.0284 0.0116
 Pluto -94852-11-05 18:27 J -32922960.88 -32922960.73 -32922960.55 0.0078 0.0059
 Mars -94844-01-10 08:08 J -32920338.34 -32920338.16 -32920337.98 0.1610 0.0296
 Uranus -94844-04-05 14:08 J -32920253.08 -32920252.91 -32920252.71 0.0147 0.0099
 Saturn -94844-08-10 00:56 J -32920126.66 -32920126.46 -32920126.24 0.0276 0.0159
 Uranus -94843-04-11 07:39 J -32919882.41 -32919882.18 -32919881.93 0.0146 0.0056
 Saturn -94843-08-22 20:08 J -32919748.88 -32919748.66 -32919748.44 0.0276 0.0124
 Uranus -94842-04-16 10:47 J -32919512.31 -32919512.05 -32919511.78 0.0146 0.0009
 Jupiter -94841-03-16 07:54 J -32919177.37 -32919177.17 -32919176.96 0.0486 0.0264
 Uranus -94841-04-21 04:18 J -32919141.54 -32919141.32 -32919141.08 0.0146 0.0064
 Uranus -94840-04-26 07:54 J -32918771.33 -32918771.17 -32918770.98 0.0145 0.0108
 Neptune -94834-02-24 00:13 J -32916641.58 -32916641.49 -32916641.34 0.0089 0.0080
 Neptune -94833-02-26 15:49 J -32916274.04 -32916273.84 -32916273.60 0.0089 0.0045
 Neptune -94832-02-28 00:13 J -32915906.75 -32915906.49 -32915906.23 0.0089 0.0016
 Neptune -94831-03-02 19:39 J -32915538.93 -32915538.68 -32915538.43 0.0089 0.0019
 Neptune -94830-03-05 01:25 J -32915171.64 -32915171.44 -32915171.20 0.0089 0.0048
 Neptune -94829-03-06 22:03 J -32914803.68 -32914803.58 -32914803.47 0.0089 0.0081
 Jupiter -94829-03-20 11:01 J -32914790.27 -32914790.04 -32914789.81 0.0485 0.0073
 Saturn -94828-02-07 11:44 J -32914466.24 -32914466.01 -32914465.77 0.0283 0.0009
 Jupiter -94817-03-25 03:06 J -32910402.48 -32910402.37 -32910402.25 0.0484 0.0424
 Saturn -94814-08-17 17:15 J -32909162.03 -32909161.78 -32909161.54 0.0275 0.0007
 Saturn -94813-08-29 08:51 J -32908784.17 -32908784.13 -32908784.05 0.0275 0.0266
 Uranus -94802-10-09 11:59 J -32904726.11 -32904726.00 -32904725.86 0.0132 0.0111
 Uranus -94801-10-12 11:01 J -32904357.22 -32904357.04 -32904356.83 0.0132 0.0084
 Uranus -94800-10-16 12:42 J -32903988.19 -32903987.97 -32903987.73 0.0132 0.0038
 Saturn -94799-02-01 22:47 J -32903879.76 -32903879.55 -32903879.33 0.0283 0.0140

Uranus -94799-10-20 11:44 J -32903619.27 -32903619.01 -32903618.76 0.0133 0.0003
 Saturn -94798-02-15 00:42 J -32903501.68 -32903501.47 -32903501.25 0.0284 0.0149
 Uranus -94798-10-24 13:39 J -32903250.15 -32903249.93 -32903249.69 0.0133 0.0035
 Mars -94797-01-06 01:54 J -32903176.52 -32903176.42 -32903176.32 0.1615 0.1370
 Uranus -94797-10-27 12:13 J -32902881.19 -32902880.99 -32902880.78 0.0133 0.0079
 Uranus -94796-10-31 14:37 J -32902512.02 -32902511.89 -32902511.74 0.0134 0.0108
 Jupiter -94788-09-23 23:01 J -32899627.74 -32899627.54 -32899627.32 0.0542 0.0238
 Saturn -94785-08-11 03:35 J -32898575.58 -32898575.35 -32898575.13 0.0276 0.0124
 Saturn -94784-08-24 03:49 J -32898197.53 -32898197.34 -32898197.14 0.0276 0.0155
 Jupiter -94776-09-28 17:30 J -32895239.98 -32895239.77 -32895239.56 0.0543 0.0201
 Saturn -94770-01-27 17:30 J -32893292.85 -32893292.77 -32893292.66 0.0282 0.0256
 Saturn -94769-02-10 01:11 J -32892914.68 -32892914.45 -32892914.21 0.0283 0.0027
 Mars -94765-01-13 11:44 J -32891481.18 -32891481.01 -32891480.84 0.1609 0.0829
 Uranus -94760-04-06 00:13 J -32889571.65 -32889571.49 -32889571.31 0.0147 0.0109
 Uranus -94759-04-11 17:30 J -32889201.03 -32889200.77 -32889200.51 0.0146 0.0039
 Jupiter -94758-03-16 09:06 J -32888862.29 -32888862.12 -32888861.93 0.0486 0.0307
 Uranus -94758-04-16 21:06 J -32888830.88 -32888830.62 -32888830.36 0.0146 0.0006
 Uranus -94757-04-21 14:51 J -32888460.12 -32888459.88 -32888459.64 0.0146 0.0061
 Uranus -94756-04-26 17:44 J -32888089.89 -32888089.76 -32888089.61 0.0145 0.0124
 Saturn -94756-08-06 00:56 J -32887988.57 -32887988.46 -32887988.36 0.0276 0.0251
 Saturn -94755-08-18 23:01 J -32887610.79 -32887610.54 -32887610.29 0.0275 0.0030
 Neptune -94752-09-03 15:20 J -32886498.99 -32886498.86 -32886498.67 0.0088 0.0068
 Neptune -94751-09-06 08:51 J -32886131.36 -32886131.13 -32886130.90 0.0088 0.0043
 Neptune -94750-09-08 14:08 J -32885764.16 -32885763.91 -32885763.66 0.0088 0.0005
 Neptune -94749-09-10 03:06 J -32885396.62 -32885396.37 -32885396.10 0.0088 0.0019
 Neptune -94748-09-12 12:27 J -32885029.15 -32885028.98 -32885028.76 0.0088 0.0055
 Neptune -94747-09-14 21:06 J -32884661.74 -32884661.62 -32884661.50 0.0088 0.0078
 Jupiter -94746-03-20 23:15 J -32884474.77 -32884474.53 -32884474.29 0.0485 0.0039
 Saturn -94740-02-03 04:32 J -32882328.53 -32882328.31 -32882328.07 0.0283 0.0106
 Saturn -94739-02-16 09:35 J -32881950.28 -32881950.10 -32881949.92 0.0283 0.0185

Jupiter -94734-03-25 00:56 J -32880087.61 -32880087.46 -32880087.31 0.0485 0.0377
 Saturn -94726-08-13 12:56 J -32877024.18 -32877023.96 -32877023.73 0.0276 0.0091
 Saturn -94725-08-25 14:37 J -32876646.06 -32876645.89 -32876645.70 0.0276 0.0187
 Mars -94718-01-08 06:56 J -32874319.40 -32874319.21 -32874319.02 0.1614 0.0336
 Uranus -94718-10-10 00:42 J -32874044.56 -32874044.47 -32874044.36 0.0132 0.0119
 Uranus -94717-10-12 22:32 J -32873675.78 -32873675.56 -32873675.34 0.0132 0.0069
 Uranus -94716-10-17 00:56 J -32873306.68 -32873306.46 -32873306.23 0.0132 0.0040
 Uranus -94715-10-20 22:18 J -32872937.82 -32872937.57 -32872937.31 0.0133 0.0003
 Uranus -94714-10-25 01:39 J -32872568.65 -32872568.43 -32872568.20 0.0133 0.0041
 Uranus -94713-10-27 22:47 J -32872199.75 -32872199.55 -32872199.33 0.0133 0.0074
 Uranus -94712-11-01 03:06 J -32871830.46 -32871830.37 -32871830.27 0.0134 0.0121
 Saturn -94711-01-29 08:23 J -32871741.29 -32871741.15 -32871741.00 0.0282 0.0221
 Saturn -94710-02-11 14:08 J -32871363.15 -32871362.91 -32871362.67 0.0283 0.0063
 Jupiter -94705-09-22 14:23 J -32869313.08 -32869312.90 -32869312.72 0.0543 0.0323
 Saturn -94697-08-07 08:08 J -32866437.33 -32866437.16 -32866437.00 0.0276 0.0214
 Saturn -94696-08-20 04:03 J -32866059.58 -32866059.33 -32866059.09 0.0276 0.0066
 Jupiter -94693-09-28 03:20 J -32864924.58 -32864924.36 -32864924.14 0.0543 0.0142
 Pluto -94689-05-05 15:06 J -32863609.13 -32863608.87 -32863608.59 0.0067 0.0008
 Mars -94686-01-15 17:01 J -32862623.85 -32862623.79 -32862623.73 0.1608 0.1514
 Saturn -94681-02-05 14:23 J -32860777.13 -32860776.90 -32860776.66 0.0283 0.0068
 Saturn -94680-02-18 00:13 J -32860398.62 -32860398.49 -32860398.33 0.0283 0.0224
 Uranus -94676-04-06 10:03 J -32858890.27 -32858890.08 -32858889.87 0.0147 0.0091
 Jupiter -94675-03-15 20:08 J -32858546.81 -32858546.66 -32858546.49 0.0486 0.0351
 Uranus -94675-04-12 01:54 J -32858519.67 -32858519.42 -32858519.16 0.0146 0.0050
 Uranus -94674-04-17 05:44 J -32858149.52 -32858149.26 -32858149.00 0.0146 0.0015
 Uranus -94673-04-21 23:01 J -32857778.76 -32857778.54 -32857778.29 0.0146 0.0068
 Uranus -94672-04-27 02:08 J -32857408.57 -32857408.41 -32857408.24 0.0145 0.0112
 Neptune -94670-02-23 12:42 J -32856740.97 -32856740.97 -32856740.92 0.0089 0.0089
 Neptune -94669-02-25 18:56 J -32856373.86 -32856373.71 -32856373.51 0.0089 0.0065
 Neptune -94668-02-27 14:51 J -32856006.13 -32856005.88 -32856005.63 0.0089 0.0025

Neptune -94667-03-01 20:23 J -32855638.90 -32855638.65 -32855638.39 0.0089 0.0003
 Saturn -94667-08-15 02:08 J -32855472.65 -32855472.41 -32855472.17 0.0276 0.0055
 Neptune -94666-03-04 15:20 J -32855271.09 -32855270.86 -32855270.61 0.0089 0.0038
 Saturn -94666-08-27 23:44 J -32855094.66 -32855094.51 -32855094.36 0.0276 0.0218
 Neptune -94665-03-05 22:47 J -32854903.71 -32854903.55 -32854903.34 0.0089 0.0061
 Jupiter -94663-03-19 20:08 J -32854159.90 -32854159.66 -32854159.42 0.0486 0.0008
 Saturn -94652-01-30 22:18 J -32850189.75 -32850189.57 -32850189.38 0.0283 0.0183
 Saturn -94651-02-12 23:30 J -32849811.75 -32849811.52 -32849811.28 0.0283 0.0101
 Jupiter -94651-03-24 10:47 J -32849772.21 -32849772.05 -32849771.88 0.0485 0.0331
 Mars -94639-01-10 06:56 J -32845462.39 -32845462.21 -32845462.03 0.1612 0.0039
 Saturn -94638-08-09 14:23 J -32844886.09 -32844885.90 -32844885.70 0.0276 0.0176
 Saturn -94637-08-21 13:54 J -32844508.14 -32844507.92 -32844507.69 0.0276 0.0100
 Uranus -94634-10-10 11:30 J -32843363.15 -32843363.02 -32843362.85 0.0132 0.0103
 Uranus -94633-10-13 08:23 J -32842994.34 -32842994.15 -32842993.93 0.0132 0.0077
 Uranus -94632-10-17 12:42 J -32842625.20 -32842624.97 -32842624.73 0.0132 0.0030
 Uranus -94631-10-21 09:20 J -32842256.37 -32842256.11 -32842255.86 0.0133 0.0003
 Uranus -94630-10-25 13:25 J -32841887.16 -32841886.94 -32841886.70 0.0133 0.0041
 Uranus -94629-10-28 09:20 J -32841518.30 -32841518.11 -32841517.90 0.0133 0.0082
 Uranus -94628-11-01 13:54 J -32841149.03 -32841148.92 -32841148.77 0.0134 0.0112
 Saturn -94622-02-07 05:44 J -32839225.50 -32839225.26 -32839225.03 0.0283 0.0030
 Jupiter -94622-09-23 00:56 J -32838997.61 -32838997.46 -32838997.30 0.0542 0.0387
 Saturn -94621-02-20 16:18 J -32838846.90 -32838846.82 -32838846.71 0.0283 0.0261
 Jupiter -94610-09-27 18:56 J -32834609.94 -32834609.71 -32834609.48 0.0542 0.0063
 Saturn -94608-08-16 11:44 J -32833921.27 -32833921.01 -32833920.76 0.0276 0.0021
 Saturn -94607-08-29 04:03 J -32833543.43 -32833543.33 -32833543.21 0.0276 0.0248
 Pluto -94603-11-08 10:47 J -32832011.30 -32832011.05 -32832010.80 0.0077 0.0014
 Jupiter -94598-10-03 00:27 J -32830221.52 -32830221.48 -32830221.44 0.0543 0.0532
 Saturn -94593-02-02 06:27 J -32828638.44 -32828638.23 -32828638.01 0.0283 0.0148
 Uranus -94593-04-01 10:47 J -32828579.06 -32828579.05 -32828578.97 0.0147 0.0145
 Mars -94592-01-04 17:15 J -32828300.90 -32828300.78 -32828300.66 0.1618 0.1129

Saturn -94592-02-14 07:25 J -32828260.40 -32828260.19 -32828259.96 0.0283 0.0136
 Jupiter -94592-03-14 15:35 J -32828231.98 -32828231.85 -32828231.71 0.0486 0.0398
 Uranus -94592-04-06 19:25 J -32828208.85 -32828208.69 -32828208.49 0.0147 0.0102
 Uranus -94591-04-12 10:32 J -32827838.32 -32827838.06 -32827837.80 0.0146 0.0033
 Uranus -94590-04-17 15:20 J -32827468.11 -32827467.86 -32827467.60 0.0146 0.0011
 Uranus -94589-04-22 08:08 J -32827097.38 -32827097.16 -32827096.91 0.0146 0.0066
 Uranus -94588-04-27 10:32 J -32826727.17 -32826727.06 -32826726.91 0.0145 0.0127
 Neptune -94588-09-03 07:25 J -32826598.28 -32826598.19 -32826598.07 0.0088 0.0081
 Neptune -94587-09-05 14:08 J -32826231.08 -32826230.91 -32826230.70 0.0088 0.0057
 Neptune -94586-09-08 02:51 J -32825863.63 -32825863.38 -32825863.12 0.0088 0.0021
 Neptune -94585-09-09 13:54 J -32825496.17 -32825495.92 -32825495.67 0.0088 0.0004
 Mars -94584-07-18 18:13 J -32825183.96 -32825183.74 -32825183.52 0.1916 0.0781
 Neptune -94584-09-11 20:08 J -32825128.87 -32825128.66 -32825128.40 0.0088 0.0042
 Neptune -94583-09-14 11:15 J -32824761.17 -32824761.03 -32824760.84 0.0088 0.0065
 Jupiter -94580-03-19 07:25 J -32823844.42 -32823844.19 -32823843.96 0.0485 0.0044
 Saturn -94579-08-11 02:23 J -32823334.61 -32823334.40 -32823334.19 0.0276 0.0139
 Saturn -94578-08-24 05:01 J -32822956.49 -32822956.29 -32822956.08 0.0275 0.0135
 Jupiter -94568-03-23 10:03 J -32819457.28 -32819457.08 -32819456.88 0.0485 0.0277
 Saturn -94564-01-26 16:18 J -32818051.87 -32818051.82 -32818051.76 0.0283 0.0274
 Saturn -94563-02-08 21:20 J -32817673.85 -32817673.61 -32817673.37 0.0283 0.0007
 Mars -94560-01-11 23:30 J -32816605.67 -32816605.52 -32816605.37 0.1611 0.0799
 Saturn -94550-08-05 19:25 J -32812747.75 -32812747.69 -32812747.62 0.0276 0.0266
 Uranus -94550-10-10 23:15 J -32812681.65 -32812681.53 -32812681.40 0.0132 0.0112
 Saturn -94549-08-17 17:15 J -32812370.04 -32812369.78 -32812369.53 0.0276 0.0013
 Uranus -94549-10-13 18:42 J -32812312.94 -32812312.72 -32812312.49 0.0132 0.0062
 Uranus -94548-10-17 23:30 J -32811943.75 -32811943.52 -32811943.28 0.0132 0.0035
 Uranus -94547-10-21 18:56 J -32811574.97 -32811574.71 -32811574.46 0.0133 0.0009
 Uranus -94546-10-26 00:13 J -32811205.71 -32811205.49 -32811205.26 0.0133 0.0045
 Uranus -94545-10-28 19:25 J -32810836.89 -32810836.69 -32810836.48 0.0133 0.0077
 Uranus -94544-11-02 01:25 J -32810467.51 -32810467.44 -32810467.34 0.0134 0.0124

Jupiter -94539-09-21 13:39 J -32808683.04 -32808682.93 -32808682.81 0.0541 0.0471
 Saturn -94534-02-03 12:42 J -32807087.19 -32807086.97 -32807086.74 0.0283 0.0116
 Saturn -94533-02-16 18:56 J -32806708.90 -32806708.71 -32806708.52 0.0283 0.0173
 Jupiter -94527-09-26 19:39 J -32804294.91 -32804294.68 -32804294.46 0.0543 0.0023
 Saturn -94520-08-12 17:30 J -32801782.99 -32801782.77 -32801782.54 0.0276 0.0103
 Saturn -94519-08-25 18:13 J -32801404.94 -32801404.74 -32801404.55 0.0275 0.0169
 Jupiter -94515-10-01 21:06 J -32799906.74 -32799906.62 -32799906.48 0.0544 0.0453
 Mars -94513-01-07 09:06 J -32799444.27 -32799444.12 -32799443.98 0.1616 0.0911
 Jupiter -94509-03-14 03:20 J -32797916.45 -32797916.36 -32797916.26 0.0486 0.0438
 Uranus -94508-04-07 04:47 J -32797527.49 -32797527.30 -32797527.08 0.0147 0.0085
 Uranus -94507-04-12 17:59 J -32797157.00 -32797156.75 -32797156.49 0.0146 0.0045
 Uranus -94506-04-17 23:30 J -32796786.77 -32796786.52 -32796786.26 0.0146 0.0020
 Saturn -94505-01-29 05:44 J -32796500.37 -32796500.26 -32796500.12 0.0283 0.0240
 Neptune -94505-02-25 10:32 J -32796473.15 -32796473.06 -32796472.91 0.0089 0.0079
 Uranus -94505-04-22 15:49 J -32796416.07 -32796415.84 -32796415.60 0.0146 0.0070
 Saturn -94504-02-10 07:25 J -32796122.43 -32796122.19 -32796121.94 0.0283 0.0042
 Neptune -94504-02-26 16:32 J -32796106.01 -32796105.81 -32796105.57 0.0089 0.0043
 Uranus -94504-04-27 18:56 J -32796045.87 -32796045.71 -32796045.55 0.0145 0.0116
 Neptune -94503-03-01 11:15 J -32795738.29 -32795738.03 -32795737.76 0.0089 0.0015
 Neptune -94502-03-03 20:08 J -32795370.90 -32795370.66 -32795370.41 0.0089 0.0020
 Neptune -94501-03-05 10:18 J -32795003.29 -32795003.07 -32795002.83 0.0089 0.0048
 Neptune -94500-03-07 23:30 J -32794635.59 -32794635.52 -32794635.41 0.0089 0.0083
 Jupiter -94497-03-18 06:42 J -32793529.46 -32793529.22 -32793528.97 0.0486 0.0092
 Saturn -94491-08-07 01:54 J -32791196.56 -32791196.42 -32791196.27 0.0276 0.0227
 Saturn -94490-08-20 00:42 J -32790818.71 -32790818.47 -32790818.22 0.0276 0.0048
 Jupiter -94485-03-22 16:03 J -32789142.03 -32789141.83 -32789141.62 0.0485 0.0228
 Mars -94481-01-14 16:18 J -32787748.93 -32787748.82 -32787748.70 0.1610 0.1233
 Saturn -94475-02-04 22:32 J -32785535.78 -32785535.56 -32785535.32 0.0283 0.0082
 Saturn -94474-02-18 08:23 J -32785157.30 -32785157.15 -32785156.98 0.0283 0.0207
 Uranus -94466-10-11 09:20 J -32782000.26 -32782000.11 -32781999.93 0.0132 0.0096

Uranus -94465-10-14 04:03 J -32781631.53 -32781631.33 -32781631.10 0.0132 0.0072
 Uranus -94464-10-18 10:18 J -32781262.30 -32781262.07 -32781261.83 0.0132 0.0024
 Uranus -94463-10-22 04:47 J -32780893.55 -32780893.30 -32780893.05 0.0133 0.0006
 Uranus -94462-10-26 10:32 J -32780524.27 -32780524.06 -32780523.82 0.0133 0.0045
 Saturn -94461-08-14 06:56 J -32780231.45 -32780231.21 -32780230.97 0.0276 0.0064
 Uranus -94461-10-29 04:47 J -32780155.48 -32780155.30 -32780155.09 0.0133 0.0085
 Saturn -94460-08-27 01:11 J -32779853.62 -32779853.45 -32779853.27 0.0275 0.0200
 Uranus -94460-11-02 11:44 J -32779786.13 -32779786.01 -32779785.88 0.0134 0.0114
 Saturn -94446-01-30 12:56 J -32774949.13 -32774948.96 -32774948.78 0.0283 0.0204
 Saturn -94445-02-12 11:30 J -32774571.26 -32774571.02 -32774570.77 0.0283 0.0076
 Jupiter -94444-09-25 19:54 J -32773979.91 -32773979.67 -32773979.43 0.0543 0.0074
 Pluto -94440-05-07 23:30 J -32772659.75 -32772659.52 -32772659.25 0.0067 0.0021
 Mars -94434-01-09 06:42 J -32770587.41 -32770587.22 -32770587.03 0.1615 0.0075
 Saturn -94432-08-08 08:23 J -32769645.33 -32769645.15 -32769644.97 0.0276 0.0191
 Jupiter -94432-09-30 23:01 J -32769591.68 -32769591.54 -32769591.38 0.0543 0.0393
 Saturn -94431-08-21 11:44 J -32769267.24 -32769267.01 -32769266.78 0.0276 0.0080
 Jupiter -94426-03-14 02:51 J -32767601.41 -32767601.38 -32767601.34 0.0487 0.0481
 Uranus -94425-04-02 03:20 J -32767216.44 -32767216.36 -32767216.26 0.0147 0.0138
 Uranus -94424-04-07 14:23 J -32766846.08 -32766845.90 -32766845.70 0.0147 0.0095
 Uranus -94423-04-13 02:08 J -32766475.68 -32766475.41 -32766475.15 0.0146 0.0028
 Neptune -94423-09-05 01:54 J -32766330.59 -32766330.42 -32766330.23 0.0088 0.0064
 Uranus -94422-04-18 09:06 J -32766105.37 -32766105.12 -32766104.87 0.0146 0.0013
 Neptune -94422-09-07 14:51 J -32765963.10 -32765962.88 -32765962.65 0.0088 0.0039
 Uranus -94421-04-22 23:44 J -32765734.73 -32765734.51 -32765734.26 0.0146 0.0070
 Neptune -94421-09-08 21:35 J -32765595.86 -32765595.60 -32765595.33 0.0088 0.0003
 Uranus -94420-04-28 03:06 J -32765364.49 -32765364.37 -32765364.24 0.0145 0.0128
 Neptune -94420-09-11 13:54 J -32765228.17 -32765227.92 -32765227.68 0.0088 0.0021
 Neptune -94419-09-13 17:15 J -32764860.97 -32764860.78 -32764860.58 0.0088 0.0057
 Neptune -94418-09-16 09:49 J -32764493.17 -32764493.09 -32764492.96 0.0088 0.0080
 Saturn -94416-02-06 09:35 J -32763984.33 -32763984.10 -32763983.87 0.0283 0.0049

Saturn -94415-02-19 17:44 J -32763605.88 -32763605.76 -32763605.62 0.0283 0.0238
 Jupiter -94414-03-18 13:54 J -32763214.14 -32763213.92 -32763213.70 0.0486 0.0132
 Jupiter -94402-03-23 00:27 J -32758826.70 -32758826.48 -32758826.24 0.0485 0.0184
 Saturn -94402-08-16 13:54 J -32758680.17 -32758679.92 -32758679.66 0.0276 0.0029
 Saturn -94401-08-28 05:30 J -32758302.39 -32758302.27 -32758302.12 0.0275 0.0232
 Jupiter -94390-03-27 04:03 J -32754439.40 -32754439.33 -32754439.24 0.0485 0.0454
 Saturn -94387-01-31 14:23 J -32753398.08 -32753397.90 -32753397.69 0.0283 0.0174
 Saturn -94386-02-13 16:47 J -32753020.02 -32753019.80 -32753019.57 0.0283 0.0108
 Uranus -94383-10-07 13:11 J -32751687.98 -32751687.95 -32751687.88 0.0132 0.0129
 Uranus -94382-10-11 20:08 J -32751318.80 -32751318.66 -32751318.52 0.0132 0.0106
 Uranus -94381-10-14 13:39 J -32750950.15 -32750949.93 -32750949.69 0.0132 0.0056
 Uranus -94380-10-18 20:08 J -32750580.89 -32750580.66 -32750580.42 0.0132 0.0031
 Uranus -94379-10-22 13:54 J -32750212.16 -32750211.92 -32750211.67 0.0133 0.0013
 Uranus -94378-10-26 20:37 J -32749842.86 -32749842.64 -32749842.40 0.0133 0.0047
 Uranus -94377-10-29 14:37 J -32749474.08 -32749473.89 -32749473.69 0.0133 0.0081
 Uranus -94376-11-02 21:49 J -32749104.65 -32749104.59 -32749104.49 0.0134 0.0126
 Saturn -94373-08-09 19:11 J -32748093.89 -32748093.70 -32748093.50 0.0276 0.0156
 Saturn -94372-08-22 22:47 J -32747715.77 -32747715.55 -32747715.33 0.0275 0.0113
 Jupiter -94361-09-24 21:35 J -32743664.81 -32743664.60 -32743664.38 0.0542 0.0133
 Saturn -94357-02-08 14:23 J -32742433.14 -32742432.90 -32742432.65 0.0283 0.0019
 Saturn -94356-02-20 18:42 J -32742054.79 -32742054.72 -32742054.63 0.0283 0.0268
 Mars -94355-01-11 11:30 J -32741730.21 -32741730.02 -32741729.83 0.1613 0.0390
 Pluto -94355-11-09 05:59 J -32741428.31 -32741428.25 -32741428.19 0.0078 0.0075
 Pluto -94354-11-10 21:49 J -32741061.69 -32741061.59 -32741061.44 0.0077 0.0066
 Jupiter -94349-09-29 23:01 J -32739276.73 -32739276.54 -32739276.34 0.0543 0.0303
 Saturn -94344-08-04 17:44 J -32737506.83 -32737506.76 -32737506.69 0.0276 0.0265
 Saturn -94343-08-17 16:18 J -32737129.07 -32737128.82 -32737128.56 0.0276 0.0006
 Saturn -94342-08-30 12:13 J -32736751.04 -32736750.99 -32736750.90 0.0275 0.0264
 Neptune -94341-02-24 14:37 J -32736572.94 -32736572.89 -32736572.82 0.0089 0.0086
 Uranus -94341-04-02 11:01 J -32736535.12 -32736535.04 -32736534.94 0.0147 0.0138

Neptune -94340-02-26 07:25 J -32736205.37 -32736205.19 -32736204.99 0.0089 0.0063
 Uranus -94340-04-07 23:15 J -32736164.74 -32736164.53 -32736164.31 0.0147 0.0079
 Neptune -94339-02-28 17:01 J -32735838.02 -32735837.79 -32735837.54 0.0089 0.0024
 Uranus -94339-04-13 09:06 J -32735794.38 -32735794.12 -32735793.86 0.0146 0.0040
 Neptune -94338-03-03 06:13 J -32735470.51 -32735470.24 -32735469.97 0.0089 0.0001
 Uranus -94338-04-18 17:15 J -32735424.02 -32735423.78 -32735423.52 0.0146 0.0025
 Neptune -94337-03-04 20:51 J -32735102.84 -32735102.63 -32735102.39 0.0089 0.0039
 Uranus -94337-04-23 06:42 J -32735053.44 -32735053.22 -32735052.97 0.0146 0.0072
 Neptune -94336-03-07 05:44 J -32734735.44 -32734735.26 -32734735.06 0.0089 0.0062
 Uranus -94336-04-28 11:01 J -32734683.17 -32734683.04 -32734682.88 0.0145 0.0119
 Jupiter -94331-03-17 23:30 J -32732898.76 -32732898.52 -32732898.29 0.0486 0.0162
 Saturn -94328-02-01 17:59 J -32731846.95 -32731846.75 -32731846.54 0.0283 0.0143
 Saturn -94327-02-15 01:25 J -32731468.64 -32731468.44 -32731468.24 0.0283 0.0141
 Jupiter -94319-03-22 03:35 J -32728511.57 -32728511.35 -32728511.12 0.0485 0.0138
 Saturn -94314-08-12 05:44 J -32726542.48 -32726542.26 -32726542.04 0.0276 0.0121
 Saturn -94313-08-24 04:18 J -32726164.53 -32726164.32 -32726164.10 0.0275 0.0144
 Mars -94308-01-06 05:30 J -32724568.44 -32724568.27 -32724568.09 0.1619 0.0650
 Jupiter -94307-03-26 17:44 J -32724123.88 -32724123.76 -32724123.63 0.0485 0.0408
 Mars -94300-07-16 20:51 J -32721454.83 -32721454.63 -32721454.44 0.1912 0.0310
 Saturn -94299-01-27 14:37 J -32721259.97 -32721259.89 -32721259.80 0.0283 0.0263
 Saturn -94298-02-09 12:13 J -32720882.24 -32720881.99 -32720881.74 0.0283 0.0012
 Uranus -94298-10-12 05:30 J -32720637.44 -32720637.27 -32720637.08 0.0132 0.0089
 Uranus -94297-10-14 23:01 J -32720268.75 -32720268.54 -32720268.32 0.0132 0.0067
 Uranus -94296-10-19 05:59 J -32719899.49 -32719899.25 -32719899.00 0.0132 0.0019
 Uranus -94295-10-22 23:30 J -32719530.77 -32719530.52 -32719530.27 0.0133 0.0009
 Uranus -94294-10-27 06:27 J -32719161.45 -32719161.23 -32719161.00 0.0133 0.0048
 Uranus -94293-10-29 23:59 J -32718792.68 -32718792.50 -32718792.31 0.0133 0.0087
 Uranus -94292-11-03 07:25 J -32718423.29 -32718423.19 -32718423.06 0.0134 0.0117
 Saturn -94285-08-05 19:25 J -32715955.82 -32715955.69 -32715955.55 0.0277 0.0231
 Saturn -94284-08-18 21:49 J -32715577.82 -32715577.59 -32715577.34 0.0276 0.0038

Jupiter -94278-09-24 22:18 J -32713349.79 -32713349.57 -32713349.35 0.0542 0.0207
 Mars -94276-01-13 14:51 J -32712872.99 -32712872.88 -32712872.77 0.1612 0.1277
 Saturn -94269-02-03 23:44 J -32710295.72 -32710295.51 -32710295.29 0.0283 0.0114
 Saturn -94268-02-16 06:42 J -32709917.40 -32709917.22 -32709917.01 0.0283 0.0170
 Jupiter -94266-09-29 23:15 J -32708961.73 -32708961.53 -32708961.33 0.0543 0.0250
 Neptune -94259-09-04 15:20 J -32706429.96 -32706429.86 -32706429.72 0.0088 0.0078
 Neptune -94258-09-06 21:06 J -32706062.80 -32706062.62 -32706062.39 0.0088 0.0055
 Uranus -94257-04-02 18:27 J -32705853.82 -32705853.73 -32705853.59 0.0147 0.0132
 Neptune -94257-09-08 14:23 J -32705695.14 -32705694.90 -32705694.64 0.0088 0.0017
 Uranus -94256-04-08 08:23 J -32705483.33 -32705483.15 -32705482.93 0.0147 0.0088
 Neptune -94256-09-10 18:13 J -32705327.99 -32705327.74 -32705327.49 0.0088 0.0007
 Uranus -94255-04-13 16:47 J -32705113.07 -32705112.80 -32705112.53 0.0146 0.0022
 Saturn -94255-08-13 09:20 J -32704991.35 -32704991.11 -32704990.87 0.0276 0.0090
 Neptune -94255-09-13 11:01 J -32704960.25 -32704960.04 -32704959.80 0.0088 0.0044
 Uranus -94254-04-19 02:23 J -32704742.64 -32704742.40 -32704742.14 0.0146 0.0017
 Saturn -94254-08-26 04:03 J -32704613.53 -32704613.33 -32704613.13 0.0275 0.0170
 Neptune -94254-09-15 16:18 J -32704592.98 -32704592.82 -32704592.66 0.0088 0.0068
 Uranus -94253-04-23 14:23 J -32704372.13 -32704371.90 -32704371.66 0.0146 0.0074
 Uranus -94252-04-28 19:11 J -32704001.80 -32704001.70 -32704001.57 0.0145 0.0130
 Jupiter -94248-03-17 03:06 J -32702583.58 -32702583.37 -32702583.16 0.0486 0.0198
 Saturn -94240-01-28 10:47 J -32699709.17 -32699709.05 -32699708.91 0.0283 0.0238
 Saturn -94239-02-10 09:35 J -32699331.34 -32699331.10 -32699330.86 0.0283 0.0038
 Jupiter -94236-03-21 18:56 J -32698195.95 -32698195.71 -32698195.48 0.0486 0.0097
 Mars -94229-01-09 03:49 J -32695711.52 -32695711.34 -32695711.17 0.1618 0.0411
 Saturn -94226-08-08 00:27 J -32694404.65 -32694404.48 -32694404.32 0.0277 0.0201
 Saturn -94225-08-20 05:59 J -32694026.48 -32694026.25 -32694026.01 0.0276 0.0066
 Jupiter -94224-03-25 21:06 J -32693808.76 -32693808.62 -32693808.46 0.0485 0.0375
 Mars -94221-07-20 23:44 J -32692595.61 -32692595.51 -32692595.41 0.1916 0.1720
 Uranus -94215-10-08 07:54 J -32690325.26 -32690325.17 -32690325.08 0.0132 0.0122
 Uranus -94214-10-12 14:51 J -32689956.03 -32689955.88 -32689955.71 0.0132 0.0100

Uranus	-94213-10-15 08:08 J	-32689587.38	-32689587.16	-32689586.92	0.0132	0.0051
Uranus	-94212-10-19 15:20 J	-32689218.10	-32689217.86	-32689217.61	0.0132	0.0027
Uranus	-94211-10-23 08:37 J	-32688849.38	-32688849.14	-32688848.89	0.0133	0.0018
Saturn	-94210-02-05 03:49 J	-32688744.56	-32688744.34	-32688744.11	0.0283	0.0087
Uranus	-94210-10-27 16:03 J	-32688480.05	-32688479.83	-32688479.59	0.0133	0.0049
Saturn	-94209-02-18 05:59 J	-32688366.43	-32688366.25	-32688366.07	0.0283	0.0198
Uranus	-94209-10-30 09:35 J	-32688111.27	-32688111.10	-32688110.90	0.0133	0.0085
Uranus	-94208-11-03 17:30 J	-32687741.83	-32687741.77	-32687741.69	0.0134	0.0128
Saturn	-94196-08-14 07:54 J	-32683440.41	-32683440.17	-32683439.92	0.0276	0.0062
Saturn	-94195-08-27 05:15 J	-32683062.45	-32683062.28	-32683062.11	0.0275	0.0197
Jupiter	-94195-09-24 01:54 J	-32683034.62	-32683034.42	-32683034.22	0.0542	0.0245
Pluto	-94192-05-08 18:13 J	-32682076.95	-32682076.74	-32682076.48	0.0066	0.0036
Pluto	-94191-05-10 09:49 J	-32681710.23	-32681710.09	-32681709.88	0.0067	0.0050
Jupiter	-94183-09-29 12:56 J	-32678646.17	-32678645.96	-32678645.74	0.0543	0.0196
Mars	-94182-01-03 11:59 J	-32678550.05	-32678550.00	-32678549.94	0.1625	0.1538
Saturn	-94181-01-30 06:42 J	-32678158.37	-32678158.22	-32678158.06	0.0282	0.0214
Saturn	-94180-02-11 10:47 J	-32677780.27	-32677780.05	-32677779.81	0.0283	0.0068
Neptune	-94176-02-25 16:18 J	-32676304.93	-32676304.82	-32676304.67	0.0089	0.0076
Neptune	-94175-02-28 03:20 J	-32675937.59	-32675937.36	-32675937.11	0.0089	0.0039
Neptune	-94174-03-02 18:56 J	-32675569.95	-32675569.71	-32675569.45	0.0089	0.0014
Neptune	-94173-03-04 02:23 J	-32675202.64	-32675202.40	-32675202.13	0.0089	0.0024
Uranus	-94173-04-03 01:25 J	-32675172.54	-32675172.44	-32675172.29	0.0147	0.0130
Neptune	-94172-03-06 21:49 J	-32674834.80	-32674834.59	-32674834.37	0.0089	0.0051
Uranus	-94172-04-08 16:18 J	-32674802.03	-32674801.82	-32674801.59	0.0147	0.0073
Neptune	-94171-03-09 03:49 J	-32674467.41	-32674467.34	-32674467.27	0.0089	0.0086
Uranus	-94171-04-13 23:01 J	-32674431.80	-32674431.54	-32674431.27	0.0146	0.0035
Uranus	-94170-04-19 10:32 J	-32674061.30	-32674061.06	-32674060.81	0.0146	0.0030
Uranus	-94169-04-23 20:51 J	-32673690.86	-32673690.63	-32673690.40	0.0146	0.0074
Uranus	-94168-04-29 03:35 J	-32673320.47	-32673320.35	-32673320.20	0.0145	0.0123
Saturn	-94167-08-09 06:42 J	-32672853.40	-32672853.22	-32672853.02	0.0277	0.0173

Saturn -94166-08-22 10:18 J -32672475.31 -32672475.07 -32672474.84 0.0276 0.0092
 Jupiter -94165-03-16 21:35 J -32672267.81 -32672267.60 -32672267.38 0.0487 0.0220
 Jupiter -94153-03-20 22:03 J -32667880.82 -32667880.58 -32667880.34 0.0486 0.0062
 Saturn -94151-02-06 02:37 J -32667193.64 -32667193.39 -32667193.15 0.0282 0.0059
 Mars -94150-01-10 21:06 J -32666854.78 -32666854.62 -32666854.46 0.1616 0.0563
 Saturn -94150-02-19 02:37 J -32666815.53 -32666815.39 -32666815.24 0.0283 0.0227
 Jupiter -94141-03-25 14:08 J -32663493.07 -32663492.91 -32663492.74 0.0485 0.0343
 Saturn -94137-08-15 09:20 J -32661889.35 -32661889.11 -32661888.86 0.0276 0.0035
 Saturn -94136-08-28 11:15 J -32661511.17 -32661511.03 -32661510.89 0.0275 0.0221
 Uranus -94131-10-08 16:03 J -32659643.83 -32659643.83 -32659643.80 0.0132 0.0132
 Uranus -94130-10-12 23:30 J -32659274.70 -32659274.52 -32659274.31 0.0132 0.0083
 Uranus -94129-10-15 17:15 J -32658905.99 -32658905.78 -32658905.56 0.0132 0.0061
 Uranus -94128-10-20 00:27 J -32658536.72 -32658536.48 -32658536.23 0.0132 0.0014
 Uranus -94127-10-23 18:13 J -32658167.98 -32658167.74 -32658167.50 0.0133 0.0012
 Uranus -94126-10-28 01:11 J -32657798.68 -32657798.45 -32657798.22 0.0133 0.0052
 Uranus -94125-10-30 18:56 J -32657429.88 -32657429.71 -32657429.52 0.0133 0.0090
 Uranus -94124-11-04 02:37 J -32657060.49 -32657060.39 -32657060.28 0.0134 0.0120
 Saturn -94122-01-31 08:51 J -32656607.30 -32656607.13 -32656606.95 0.0282 0.0187
 Saturn -94121-02-13 14:23 J -32656229.12 -32656228.90 -32656228.67 0.0283 0.0094
 Jupiter -94112-09-23 07:39 J -32652719.36 -32652719.18 -32652718.99 0.0541 0.0317
 Saturn -94108-08-10 09:49 J -32651302.30 -32651302.09 -32651301.87 0.0277 0.0143
 Saturn -94107-08-23 07:54 J -32650924.39 -32650924.17 -32650923.93 0.0276 0.0117
 Pluto -94106-11-11 14:51 J -32650479.11 -32650478.88 -32650478.62 0.0078 0.0024
 Mars -94103-01-05 05:30 J -32649693.39 -32649693.27 -32649693.15 0.1624 0.1198
 Jupiter -94100-09-28 03:35 J -32648331.58 -32648331.35 -32648331.12 0.0542 0.0109
 Neptune -94094-09-06 16:18 J -32646161.99 -32646161.82 -32646161.62 0.0088 0.0060
 Neptune -94093-09-07 20:08 J -32645794.88 -32645794.66 -32645794.42 0.0088 0.0036
 Saturn -94092-02-06 22:47 J -32645642.79 -32645642.55 -32645642.30 0.0282 0.0031
 Neptune -94092-09-10 13:11 J -32645427.21 -32645426.95 -32645426.69 0.0088 0.0001
 Saturn -94091-02-20 03:35 J -32645264.44 -32645264.35 -32645264.24 0.0283 0.0255

Neptune -94091-09-12 18:42 J -32645059.96 -32645059.72 -32645059.48 0.0088 0.0025
 Neptune -94090-09-15 07:25 J -32644692.38 -32644692.19 -32644692.00 0.0088 0.0060
 Uranus -94089-04-03 09:20 J -32644491.23 -32644491.11 -32644490.97 0.0147 0.0126
 Neptune -94089-09-16 17:01 J -32644324.84 -32644324.79 -32644324.70 0.0088 0.0085
 Uranus -94088-04-09 01:11 J -32644120.66 -32644120.45 -32644120.24 0.0147 0.0081
 Jupiter -94088-10-03 14:51 J -32643942.96 -32643942.88 -32643942.79 0.0544 0.0500
 Uranus -94087-04-14 05:59 J -32643750.51 -32643750.25 -32643749.98 0.0146 0.0018
 Uranus -94086-04-19 18:42 J -32643379.97 -32643379.72 -32643379.47 0.0146 0.0020
 Uranus -94085-04-24 02:51 J -32643009.59 -32643009.38 -32643009.14 0.0146 0.0080
 Uranus -94084-04-29 11:01 J -32642639.13 -32642639.04 -32642638.91 0.0145 0.0131
 Jupiter -94082-03-16 23:59 J -32641952.70 -32641952.50 -32641952.29 0.0486 0.0252
 Saturn -94079-08-04 06:56 J -32640716.25 -32640716.21 -32640716.15 0.0277 0.0270
 Saturn -94078-08-17 15:49 J -32640338.08 -32640337.84 -32640337.60 0.0276 0.0009
 Saturn -94077-08-29 17:01 J -32639959.89 -32639959.79 -32639959.67 0.0275 0.0244
 Mars -94071-01-12 15:20 J -32637998.02 -32637997.86 -32637997.71 0.1614 0.0864
 Jupiter -94070-03-21 14:23 J -32637565.14 -32637564.90 -32637564.67 0.0486 0.0024
 Saturn -94063-02-01 13:25 J -32635056.14 -32635055.94 -32635055.75 0.0282 0.0159
 Saturn -94062-02-14 14:23 J -32634678.12 -32634677.90 -32634677.67 0.0283 0.0122
 Jupiter -94058-03-25 18:13 J -32633177.92 -32633177.74 -32633177.54 0.0485 0.0308
 Saturn -94049-08-11 07:54 J -32629751.41 -32629751.17 -32629750.94 0.0277 0.0117
 Saturn -94048-08-24 06:27 J -32629373.44 -32629373.23 -32629373.01 0.0277 0.0140
 Uranus -94047-10-09 01:25 J -32628962.53 -32628962.44 -32628962.31 0.0132 0.0117
 Uranus -94046-10-13 08:23 J -32628593.32 -32628593.15 -32628592.97 0.0132 0.0094
 Uranus -94045-10-16 02:23 J -32628224.63 -32628224.40 -32628224.17 0.0132 0.0046
 Uranus -94044-10-20 08:51 J -32627855.37 -32627855.13 -32627854.87 0.0132 0.0024
 Uranus -94043-10-24 03:06 J -32627486.61 -32627486.37 -32627486.12 0.0133 0.0022
 Uranus -94042-10-28 09:49 J -32627117.31 -32627117.09 -32627116.85 0.0133 0.0052
 Uranus -94041-10-31 04:47 J -32626748.47 -32626748.30 -32626748.11 0.0133 0.0089
 Uranus -94040-11-04 11:44 J -32626379.05 -32626379.01 -32626378.93 0.0134 0.0130
 Saturn -94034-01-27 02:37 J -32624469.43 -32624469.39 -32624469.32 0.0281 0.0274

Saturn -94033-02-09 01:39 J -32624091.66 -32624091.43 -32624091.19 0.0282 0.0006
 Jupiter -94029-09-22 04:47 J -32622404.47 -32622404.30 -32622404.14 0.0542 0.0375
 Mars -94024-01-07 04:32 J -32620836.49 -32620836.31 -32620836.12 0.1621 0.0199
 Saturn -94020-08-05 14:08 J -32619165.02 -32619164.91 -32619164.79 0.0277 0.0241
 Saturn -94019-08-18 22:03 J -32618786.83 -32618786.58 -32618786.33 0.0276 0.0020
 Saturn -94018-08-31 17:59 J -32618408.80 -32618408.75 -32618408.68 0.0276 0.0267
 Jupiter -94017-09-27 18:13 J -32618015.96 -32618015.74 -32618015.51 0.0543 0.0060
 Mars -94016-07-16 04:18 J -32617724.53 -32617724.32 -32617724.10 0.1908 0.0117
 Neptune -94012-02-25 00:56 J -32616404.53 -32616404.46 -32616404.34 0.0089 0.0083
 Neptune -94011-02-27 17:59 J -32616036.92 -32616036.75 -32616036.54 0.0089 0.0059
 Neptune -94010-03-02 00:56 J -32615669.72 -32615669.46 -32615669.21 0.0089 0.0021
 Neptune -94009-03-03 20:08 J -32615301.91 -32615301.66 -32615301.40 0.0089 0.0003
 Neptune -94008-03-06 01:39 J -32614934.64 -32614934.43 -32614934.19 0.0089 0.0042
 Neptune -94007-03-08 20:51 J -32614566.80 -32614566.63 -32614566.45 0.0089 0.0066
 Uranus -94005-04-03 16:18 J -32613809.94 -32613809.82 -32613809.66 0.0147 0.0123
 Jupiter -94005-10-02 19:39 J -32613627.81 -32613627.68 -32613627.54 0.0543 0.0441
 Saturn -94004-02-02 13:39 J -32613505.15 -32613504.93 -32613504.70 0.0282 0.0128
 Uranus -94004-04-09 08:51 J -32613439.35 -32613439.13 -32613438.90 0.0147 0.0069
 Saturn -94003-02-15 11:15 J -32613127.23 -32613127.03 -32613126.81 0.0283 0.0153
 Uranus -94003-04-14 12:42 J -32613069.23 -32613068.97 -32613068.70 0.0146 0.0031
 Uranus -94002-04-20 02:51 J -32612698.62 -32612698.38 -32612698.12 0.0146 0.0035
 Uranus -94001-04-24 10:03 J -32612328.31 -32612328.08 -32612327.85 0.0146 0.0076

94TH MILLENNIUM BCE

This is a list of transits of Moon in the 94th millennium BCE.

	FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
		TRANSIT							
		TIME							
Uranus	-94000-04-29	19:54 J	-32611957.77	-32611957.67	-32611957.53	0.0145	0.0127		
Jupiter	-93999-03-16	15:35 J	-32611637.03	-32611636.85	-32611636.66	0.0487	0.0289		
Saturn	-93990-08-13	06:42 J	-32608200.45	-32608200.22	-32608199.97	0.0277	0.0090		
Saturn	-93989-08-25	11:15 J	-32607822.22	-32607822.03	-32607821.84	0.0277	0.0166		
Jupiter	-93987-03-20	19:11 J	-32607249.94	-32607249.70	-32607249.45	0.0486	0.0015		
Saturn	-93975-01-28	07:54 J	-32602918.28	-32602918.17	-32602918.05	0.0281	0.0243		
Jupiter	-93975-03-25	05:44 J	-32602862.45	-32602862.26	-32602862.08	0.0485	0.0280		
Saturn	-93974-02-10	10:18 J	-32602540.30	-32602540.07	-32602539.83	0.0282	0.0031		
Uranus	-93963-10-09	09:20 J	-32598281.16	-32598281.11	-32598281.01	0.0132	0.0126		
Uranus	-93962-10-13	16:18 J	-32597912.02	-32597911.82	-32597911.61	0.0132	0.0078		
Saturn	-93961-08-06	21:35 J	-32597613.75	-32597613.60	-32597613.43	0.0277	0.0210		
Uranus	-93961-10-16	11:15 J	-32597543.24	-32597543.03	-32597542.81	0.0132	0.0057		
Saturn	-93960-08-20	00:27 J	-32597235.74	-32597235.48	-32597235.23	0.0276	0.0048		
Uranus	-93960-10-20	17:30 J	-32597174.02	-32597173.77	-32597173.52	0.0132	0.0010		
Uranus	-93959-10-24	12:27 J	-32596805.22	-32596804.98	-32596804.74	0.0133	0.0015		
Uranus	-93958-10-28	18:27 J	-32596435.96	-32596435.73	-32596435.50	0.0133	0.0056		
Uranus	-93957-10-31	13:54 J	-32596067.09	-32596066.92	-32596066.74	0.0133	0.0092		
Uranus	-93956-11-04	20:08 J	-32595697.75	-32595697.66	-32595697.56	0.0134	0.0123		
Jupiter	-93946-09-22	18:27 J	-32592088.87	-32592088.73	-32592088.58	0.0541	0.0419		
Mars	-93945-01-10	10:03 J	-32591979.27	-32591979.08	-32591978.88	0.1619	0.0078		
Saturn	-93945-02-04	12:56 J	-32591954.18	-32591953.96	-32591953.71	0.0282	0.0095		
Saturn	-93944-02-16	13:54 J	-32591576.10	-32591575.92	-32591575.74	0.0283	0.0186		
Pluto	-93943-05-10	16:47 J	-32591128.05	-32591127.80	-32591127.52	0.0066	0.0018		
Mars	-93937-07-19	22:18 J	-32588865.66	-32588865.57	-32588865.46	0.1912	0.1626		
Jupiter	-93934-09-27	13:25 J	-32587701.17	-32587700.94	-32587700.70	0.0542	0.0027		
Saturn	-93931-08-14	12:27 J	-32586649.21	-32586648.98	-32586648.74	0.0278	0.0063		
Saturn	-93930-08-27	18:56 J	-32586270.88	-32586270.71	-32586270.54	0.0277	0.0190		

Neptune -93930-09-05 21:20 J -32586261.74 -32586261.61 -32586261.45 0.0088 0.0072
 Neptune -93929-09-07 14:08 J -32585894.12 -32585893.91 -32585893.68 0.0088 0.0050
 Neptune -93928-09-09 21:20 J -32585526.86 -32585526.61 -32585526.36 0.0088 0.0012
 Neptune -93927-09-12 09:35 J -32585159.36 -32585159.10 -32585158.83 0.0088 0.0011
 Neptune -93926-09-14 20:37 J -32584791.83 -32584791.64 -32584791.42 0.0088 0.0049
 Neptune -93925-09-16 03:49 J -32584424.49 -32584424.34 -32584424.18 0.0088 0.0071
 Jupiter -93922-10-02 16:03 J -32583313.00 -32583312.83 -32583312.67 0.0543 0.0355
 Uranus -93921-04-04 00:13 J -32583128.63 -32583128.49 -32583128.35 0.0147 0.0122
 Uranus -93920-04-09 16:47 J -32582758.02 -32582757.80 -32582757.58 0.0147 0.0076
 Uranus -93919-04-14 19:25 J -32582387.95 -32582387.69 -32582387.42 0.0146 0.0014
 Uranus -93918-04-20 10:32 J -32582017.31 -32582017.06 -32582016.81 0.0146 0.0023
 Uranus -93917-04-24 15:49 J -32581647.05 -32581646.84 -32581646.61 0.0146 0.0084
 Saturn -93916-01-29 17:44 J -32581366.91 -32581366.76 -32581366.60 0.0281 0.0211
 Jupiter -93916-03-15 18:13 J -32581321.91 -32581321.74 -32581321.55 0.0487 0.0326
 Uranus -93916-04-30 03:49 J -32581276.44 -32581276.34 -32581276.24 0.0145 0.0132
 Saturn -93915-02-11 17:30 J -32580989.01 -32580988.77 -32580988.53 0.0282 0.0064
 Jupiter -93904-03-20 05:15 J -32576934.50 -32576934.28 -32576934.05 0.0486 0.0056
 Saturn -93902-08-09 00:56 J -32576062.65 -32576062.46 -32576062.27 0.0277 0.0182
 Saturn -93901-08-21 01:39 J -32575684.67 -32575684.43 -32575684.18 0.0276 0.0074
 Mars -93898-01-05 03:06 J -32574817.51 -32574817.37 -32574817.22 0.1627 0.0978
 Jupiter -93892-03-24 13:54 J -32572547.13 -32572546.92 -32572546.70 0.0485 0.0242
 Saturn -93886-02-05 18:56 J -32570402.94 -32570402.71 -32570402.47 0.0282 0.0063
 Saturn -93885-02-19 00:27 J -32570024.63 -32570024.48 -32570024.33 0.0283 0.0220
 Uranus -93879-10-09 19:11 J -32567599.82 -32567599.70 -32567599.57 0.0132 0.0112
 Uranus -93878-10-14 00:13 J -32567230.67 -32567230.49 -32567230.29 0.0132 0.0089
 Uranus -93877-10-16 20:08 J -32566861.89 -32566861.66 -32566861.43 0.0132 0.0041
 Uranus -93876-10-21 01:11 J -32566492.70 -32566492.45 -32566492.20 0.0132 0.0020
 Uranus -93875-10-24 21:20 J -32566123.84 -32566123.61 -32566123.37 0.0133 0.0026
 Uranus -93874-10-29 02:37 J -32565754.62 -32565754.39 -32565754.16 0.0133 0.0054
 Uranus -93873-10-31 23:15 J -32565385.68 -32565385.53 -32565385.34 0.0133 0.0093

Saturn -93872-08-15 22:18 J -32565097.81 -32565097.57 -32565097.32 0.0278 0.0036
 Uranus -93872-11-05 04:18 J -32565016.34 -32565016.32 -32565016.24 0.0134 0.0131
 Saturn -93871-08-29 00:13 J -32564719.63 -32564719.49 -32564719.32 0.0277 0.0218
 Mars -93866-01-12 13:39 J -32563122.07 -32563121.93 -32563121.79 0.1617 0.1070
 Jupiter -93863-09-21 09:35 J -32561774.19 -32561774.10 -32561774.01 0.0540 0.0499
 Saturn -93857-02-01 02:51 J -32559815.56 -32559815.38 -32559815.19 0.0281 0.0179
 Pluto -93857-11-12 17:15 J -32559530.03 -32559529.78 -32559529.52 0.0077 0.0010
 Saturn -93856-02-12 21:35 J -32559437.83 -32559437.60 -32559437.36 0.0282 0.0099
 Jupiter -93851-09-26 14:23 J -32557386.11 -32557385.90 -32557385.68 0.0542 0.0104
 Neptune -93847-02-26 23:01 J -32556136.67 -32556136.54 -32556136.37 0.0089 0.0073
 Neptune -93846-03-01 18:27 J -32555768.95 -32555768.73 -32555768.48 0.0089 0.0035
 Neptune -93845-03-03 00:27 J -32555401.73 -32555401.48 -32555401.22 0.0089 0.0009
 Neptune -93844-03-05 18:42 J -32555033.97 -32555033.72 -32555033.46 0.0089 0.0027
 Neptune -93843-03-08 03:20 J -32554666.53 -32554666.36 -32554666.14 0.0089 0.0055
 Saturn -93843-08-10 03:49 J -32554511.54 -32554511.34 -32554511.12 0.0277 0.0153
 Neptune -93842-03-10 18:13 J -32554298.74 -32554298.74 -32554298.71 0.0089 0.0089
 Saturn -93842-08-23 08:37 J -32554133.36 -32554133.14 -32554132.91 0.0277 0.0104
 Jupiter -93839-10-01 22:47 J -32552997.74 -32552997.55 -32552997.35 0.0543 0.0294
 Uranus -93837-04-04 07:11 J -32552447.33 -32552447.20 -32552447.02 0.0147 0.0117
 Uranus -93836-04-09 23:59 J -32552076.72 -32552076.50 -32552076.25 0.0147 0.0066
 Uranus -93835-04-15 02:37 J -32551706.64 -32551706.39 -32551706.12 0.0146 0.0027
 Uranus -93834-04-20 19:11 J -32551335.95 -32551335.70 -32551335.45 0.0146 0.0039
 Jupiter -93833-03-15 02:51 J -32551006.52 -32551006.38 -32551006.23 0.0487 0.0375
 Uranus -93833-04-24 23:01 J -32550965.75 -32550965.54 -32550965.30 0.0146 0.0078
 Uranus -93832-04-30 12:56 J -32550595.08 -32550594.96 -32550594.85 0.0145 0.0130
 Saturn -93827-02-07 07:25 J -32548851.42 -32548851.19 -32548850.95 0.0282 0.0028
 Saturn -93826-02-20 12:42 J -32548473.07 -32548472.97 -32548472.86 0.0282 0.0254
 Jupiter -93821-03-19 12:27 J -32546619.22 -32546618.98 -32546618.74 0.0487 0.0105
 Mars -93819-01-07 01:25 J -32545960.60 -32545960.44 -32545960.28 0.1625 0.0671
 Saturn -93814-08-04 21:06 J -32543924.67 -32543924.62 -32543924.55 0.0278 0.0269

Saturn -93813-08-17 05:30 J -32543546.52 -32543546.27 -32543546.01 0.0278 0.0009
 Saturn -93812-08-30 03:06 J -32543168.48 -32543168.37 -32543168.24 0.0277 0.0242
 Jupiter -93809-03-23 14:51 J -32542232.09 -32542231.88 -32542231.67 0.0486 0.0202
 Saturn -93798-02-02 09:06 J -32538264.33 -32538264.12 -32538263.90 0.0281 0.0144
 Saturn -93797-02-15 04:32 J -32537886.52 -32537886.31 -32537886.09 0.0282 0.0135
 Uranus -93795-10-10 03:35 J -32536918.45 -32536918.35 -32536918.24 0.0132 0.0119
 Uranus -93794-10-14 07:54 J -32536549.37 -32536549.17 -32536548.94 0.0132 0.0074
 Uranus -93793-10-17 05:01 J -32536180.49 -32536180.29 -32536180.05 0.0132 0.0054
 Uranus -93792-10-21 09:20 J -32535811.37 -32535811.11 -32535810.86 0.0132 0.0006
 Uranus -93791-10-25 06:42 J -32535442.46 -32535442.22 -32535441.98 0.0133 0.0018
 Uranus -93790-10-29 10:32 J -32535073.29 -32535073.06 -32535072.84 0.0133 0.0060
 Uranus -93789-11-01 08:08 J -32534704.32 -32534704.16 -32534703.98 0.0133 0.0093
 Uranus -93788-11-05 11:44 J -32534335.08 -32534335.01 -32534334.91 0.0134 0.0126
 Mars -93787-01-14 09:35 J -32534265.20 -32534265.10 -32534265.01 0.1616 0.1343
 Saturn -93784-08-11 14:23 J -32532960.11 -32532959.90 -32532959.67 0.0277 0.0123
 Saturn -93783-08-24 22:03 J -32532581.78 -32532581.58 -32532581.36 0.0277 0.0133
 Saturn -93769-01-27 21:49 J -32527677.66 -32527677.59 -32527677.51 0.0281 0.0263
 Saturn -93768-02-08 21:06 J -32527299.86 -32527299.62 -32527299.38 0.0282 0.0007
 Jupiter -93768-09-25 20:08 J -32527070.88 -32527070.66 -32527070.43 0.0541 0.0168
 Neptune -93765-09-06 23:01 J -32525993.71 -32525993.54 -32525993.32 0.0088 0.0057
 Neptune -93764-09-09 10:18 J -32525626.30 -32525626.07 -32525625.80 0.0088 0.0031
 Neptune -93763-09-11 23:15 J -32525258.78 -32525258.53 -32525258.29 0.0088 0.0005
 Neptune -93762-09-14 05:15 J -32524891.51 -32524891.28 -32524891.02 0.0088 0.0030
 Neptune -93761-09-15 21:35 J -32524523.75 -32524523.60 -32524523.40 0.0088 0.0064
 Neptune -93760-09-18 01:25 J -32524156.44 -32524156.44 -32524156.43 0.0088 0.0088
 Jupiter -93756-09-30 17:01 J -32522683.00 -32522682.79 -32522682.59 0.0542 0.0219
 Saturn -93755-08-06 05:01 J -32522373.41 -32522373.29 -32522373.14 0.0278 0.0237
 Saturn -93754-08-19 09:06 J -32521995.37 -32521995.12 -32521994.86 0.0278 0.0019
 Uranus -93753-04-04 15:20 J -32521765.99 -32521765.86 -32521765.69 0.0147 0.0118
 Saturn -93753-08-31 08:08 J -32521617.20 -32521617.16 -32521617.09 0.0277 0.0269

Uranus	-93752-04-10 07:54 J	-32521395.39	-32521395.17	-32521394.93	0.0147	0.0070
Uranus	-93751-04-15 10:18 J	-32521025.33	-32521025.07	-32521024.81	0.0146	0.0010
Jupiter	-93750-03-15 07:54 J	-32520691.29	-32520691.17	-32520691.05	0.0488	0.0426
Uranus	-93750-04-21 02:37 J	-32520654.64	-32520654.39	-32520654.13	0.0146	0.0027
Uranus	-93749-04-25 05:30 J	-32520284.46	-32520284.27	-32520284.04	0.0146	0.0089
Uranus	-93748-04-30 20:08 J	-32519913.75	-32519913.66	-32519913.54	0.0145	0.0132
Mars	-93740-01-08 17:44 J	-32517103.93	-32517103.76	-32517103.59	0.1623	0.0269
Saturn	-93739-02-03 16:32 J	-32516713.03	-32516712.81	-32516712.58	0.0281	0.0110
Saturn	-93738-02-16 17:59 J	-32516334.94	-32516334.75	-32516334.56	0.0282	0.0168
Jupiter	-93738-03-19 11:30 J	-32516304.24	-32516304.02	-32516303.80	0.0487	0.0157
Mars	-93732-07-13 20:51 J	-32513995.83	-32513995.63	-32513995.43	0.1903	0.0813
Jupiter	-93726-03-24 03:06 J	-32511916.59	-32511916.37	-32511916.14	0.0486	0.0164
Saturn	-93725-08-13 05:30 J	-32511408.49	-32511408.27	-32511408.03	0.0277	0.0091
Saturn	-93724-08-26 11:15 J	-32511030.23	-32511030.03	-32511029.83	0.0277	0.0162
Uranus	-93711-10-10 12:27 J	-32506237.10	-32506236.98	-32506236.82	0.0132	0.0107
Saturn	-93710-01-29 12:13 J	-32506126.12	-32506125.99	-32506125.84	0.0281	0.0228
Uranus	-93710-10-14 15:35 J	-32505868.04	-32505867.85	-32505867.64	0.0132	0.0083
Saturn	-93709-02-11 07:25 J	-32505748.44	-32505748.19	-32505747.95	0.0282	0.0043
Uranus	-93709-10-17 14:08 J	-32505499.13	-32505498.91	-32505498.67	0.0132	0.0037
Uranus	-93708-10-21 17:01 J	-32505130.04	-32505129.79	-32505129.53	0.0132	0.0016
Uranus	-93707-10-25 16:18 J	-32504761.06	-32504760.82	-32504760.59	0.0133	0.0030
Uranus	-93706-10-29 18:56 J	-32504391.94	-32504391.71	-32504391.48	0.0133	0.0056
Uranus	-93705-11-01 18:27 J	-32504022.89	-32504022.73	-32504022.56	0.0133	0.0096
Uranus	-93704-11-05 20:08 J	-32503653.69	-32503653.66	-32503653.58	0.0134	0.0131
Saturn	-93696-08-07 11:30 J	-32500822.18	-32500822.02	-32500821.84	0.0278	0.0206
Saturn	-93695-08-20 17:01 J	-32500444.03	-32500443.79	-32500443.55	0.0277	0.0048
Pluto	-93694-05-12 21:35 J	-32500178.85	-32500178.60	-32500178.32	0.0067	0.0006
Mars	-93693-01-04 02:23 J	-32499942.48	-32499942.40	-32499942.31	0.1632	0.1428
Jupiter	-93685-09-24 12:13 J	-32496756.19	-32496755.99	-32496755.79	0.0540	0.0253
Neptune	-93683-02-26 17:44 J	-32496235.86	-32496235.76	-32496235.61	0.0089	0.0078

Neptune -93682-02-28 23:59 J -32495868.69 -32495868.50 -32495868.29 0.0089 0.0055
 Neptune -93681-03-02 17:01 J -32495501.06 -32495500.79 -32495500.53 0.0089 0.0017
 Saturn -93680-02-05 05:01 J -32495161.52 -32495161.29 -32495161.07 0.0281 0.0074
 Neptune -93680-03-05 02:37 J -32495133.64 -32495133.39 -32495133.14 0.0089 0.0007
 Saturn -93679-02-18 09:20 J -32494783.26 -32494783.11 -32494782.94 0.0282 0.0204
 Neptune -93679-03-07 15:06 J -32494766.09 -32494765.87 -32494765.63 0.0089 0.0045
 Neptune -93678-03-10 05:44 J -32494398.39 -32494398.26 -32494398.08 0.0089 0.0070
 Jupiter -93673-09-29 18:27 J -32492367.96 -32492367.73 -32492367.51 0.0542 0.0133
 Uranus -93669-04-04 23:15 J -32491084.70 -32491084.53 -32491084.36 0.0147 0.0109
 Uranus -93668-04-10 14:51 J -32490714.11 -32490713.88 -32490713.63 0.0147 0.0061
 Jupiter -93667-03-14 09:20 J -32490376.15 -32490376.11 -32490376.07 0.0488 0.0478
 Uranus -93667-04-15 17:44 J -32490344.02 -32490343.76 -32490343.50 0.0146 0.0020
 Uranus -93666-04-21 10:47 J -32489973.29 -32489973.05 -32489972.80 0.0146 0.0044
 Saturn -93666-08-15 19:11 J -32489856.95 -32489856.70 -32489856.46 0.0277 0.0055
 Uranus -93665-04-25 13:25 J -32489603.15 -32489602.94 -32489602.71 0.0146 0.0080
 Saturn -93665-08-27 18:42 J -32489478.89 -32489478.72 -32489478.52 0.0277 0.0192
 Uranus -93664-05-01 05:15 J -32489232.38 -32489232.28 -32489232.18 0.0145 0.0133
 Mars -93661-01-11 12:42 J -32488247.14 -32488246.97 -32488246.79 0.1621 0.0486
 Jupiter -93655-03-18 23:15 J -32485988.75 -32485988.53 -32485988.32 0.0487 0.0205
 Mars -93653-07-18 18:13 J -32485135.89 -32485135.74 -32485135.59 0.1908 0.1433
 Saturn -93651-01-30 22:03 J -32484574.76 -32484574.58 -32484574.39 0.0281 0.0190
 Saturn -93650-02-12 15:06 J -32484197.11 -32484196.87 -32484196.63 0.0282 0.0081
 Jupiter -93643-03-22 23:01 J -32481601.77 -32481601.54 -32481601.30 0.0486 0.0114
 Saturn -93637-08-08 20:37 J -32479270.83 -32479270.64 -32479270.44 0.0278 0.0171
 Saturn -93636-08-22 06:13 J -32478892.46 -32478892.24 -32478892.01 0.0277 0.0081
 Jupiter -93631-03-27 13:11 J -32477214.02 -32477213.95 -32477213.87 0.0486 0.0456
 Uranus -93627-10-10 21:35 J -32475555.71 -32475555.60 -32475555.46 0.0132 0.0112
 Uranus -93626-10-14 23:30 J -32475186.72 -32475186.52 -32475186.29 0.0132 0.0069
 Uranus -93625-10-17 23:59 J -32474817.72 -32474817.50 -32474817.28 0.0132 0.0048
 Uranus -93624-10-22 00:56 J -32474448.71 -32474448.46 -32474448.20 0.0132 0.0003

Uranus -93623-10-26 01:11 J -32474079.68 -32474079.45 -32474079.21 0.0133 0.0022
 Uranus -93622-10-30 01:54 J -32473710.63 -32473710.42 -32473710.19 0.0133 0.0065
 Saturn -93621-02-07 19:39 J -32473609.91 -32473609.68 -32473609.44 0.0281 0.0037
 Uranus -93621-11-02 02:37 J -32473341.55 -32473341.39 -32473341.21 0.0133 0.0095
 Saturn -93620-02-19 21:49 J -32473231.71 -32473231.59 -32473231.45 0.0282 0.0237
 Uranus -93620-11-06 03:35 J -32472972.41 -32472972.35 -32472972.27 0.0134 0.0128
 Mars -93614-01-06 03:35 J -32471085.53 -32471085.35 -32471085.17 0.1630 0.0546
 Saturn -93608-08-03 22:47 J -32468683.59 -32468683.55 -32468683.49 0.0278 0.0271
 Pluto -93608-11-15 00:27 J -32468580.68 -32468580.48 -32468580.28 0.0077 0.0045
 Saturn -93607-08-17 04:32 J -32468305.56 -32468305.31 -32468305.05 0.0277 0.0021
 Saturn -93606-08-30 02:08 J -32467927.55 -32467927.41 -32467927.25 0.0277 0.0221
 Jupiter -93602-09-24 14:37 J -32466441.07 -32466440.89 -32466440.70 0.0541 0.0334
 Neptune -93601-09-06 11:30 J -32466093.16 -32466093.02 -32466092.82 0.0088 0.0068
 Neptune -93600-09-09 01:39 J -32465725.63 -32465725.43 -32465725.20 0.0088 0.0045
 Neptune -93599-09-11 07:39 J -32465358.44 -32465358.18 -32465357.92 0.0088 0.0007
 Neptune -93598-09-14 00:27 J -32464990.72 -32464990.48 -32464990.22 0.0088 0.0016
 Neptune -93597-09-15 04:03 J -32464623.52 -32464623.33 -32464623.12 0.0088 0.0054
 Neptune -93596-09-17 20:51 J -32464255.75 -32464255.63 -32464255.48 0.0088 0.0075
 Saturn -93592-02-01 03:35 J -32463023.55 -32463023.35 -32463023.13 0.0281 0.0154
 Saturn -93591-02-14 00:42 J -32462645.68 -32462645.47 -32462645.24 0.0282 0.0117
 Jupiter -93590-09-29 13:54 J -32462053.15 -32462052.92 -32462052.69 0.0542 0.0070
 Uranus -93585-04-05 07:39 J -32460403.33 -32460403.18 -32460403.01 0.0147 0.0112
 Uranus -93584-04-10 22:18 J -32460032.80 -32460032.57 -32460032.32 0.0146 0.0063
 Uranus -93583-04-16 01:39 J -32459662.69 -32459662.43 -32459662.18 0.0146 0.0005
 Mars -93582-01-13 14:51 J -32459389.95 -32459389.88 -32459389.80 0.1619 0.1475
 Uranus -93582-04-21 17:59 J -32459292.00 -32459291.75 -32459291.49 0.0146 0.0031
 Uranus -93581-04-25 19:54 J -32458921.85 -32458921.67 -32458921.45 0.0146 0.0093
 Uranus -93580-05-01 12:27 J -32458551.07 -32458550.98 -32458550.87 0.0145 0.0132
 Saturn -93578-08-11 10:18 J -32457719.27 -32457719.07 -32457718.85 0.0278 0.0138
 Saturn -93577-08-23 20:08 J -32457340.88 -32457340.66 -32457340.44 0.0277 0.0111

Jupiter -93572-03-17 18:13 J -32455673.94 -32455673.74 -32455673.54 0.0488 0.0257
 Saturn -93563-01-27 09:06 J -32452436.19 -32452436.12 -32452436.04 0.0281 0.0265
 Saturn -93562-02-09 05:59 J -32452058.49 -32452058.25 -32452058.00 0.0282 0.0003
 Saturn -93561-02-22 04:18 J -32451680.37 -32451680.32 -32451680.25 0.0282 0.0272
 Jupiter -93560-03-22 10:03 J -32451286.31 -32451286.08 -32451285.85 0.0487 0.0074
 Saturn -93549-08-05 07:39 J -32447132.30 -32447132.18 -32447132.03 0.0278 0.0237
 Jupiter -93548-03-26 13:25 J -32446899.07 -32446898.94 -32446898.81 0.0486 0.0413
 Saturn -93548-08-18 11:44 J -32446754.26 -32446754.01 -32446753.75 0.0277 0.0013
 Saturn -93547-08-31 13:11 J -32446376.03 -32446375.95 -32446375.85 0.0276 0.0254
 Uranus -93543-10-11 07:11 J -32444874.35 -32444874.20 -32444874.05 0.0132 0.0101
 Uranus -93542-10-15 07:11 J -32444505.39 -32444505.20 -32444504.98 0.0132 0.0077
 Uranus -93541-10-18 09:06 J -32444136.35 -32444136.12 -32444135.88 0.0132 0.0032
 Uranus -93540-10-22 09:06 J -32443767.37 -32443767.12 -32443766.86 0.0132 0.0012
 Uranus -93539-10-26 11:01 J -32443398.26 -32443398.04 -32443397.80 0.0133 0.0035
 Uranus -93538-10-30 10:32 J -32443029.28 -32443029.06 -32443028.82 0.0133 0.0059
 Uranus -93537-11-02 12:42 J -32442660.11 -32442659.97 -32442659.80 0.0133 0.0099
 Uranus -93536-11-06 11:44 J -32442291.04 -32442291.01 -32442290.93 0.0134 0.0131
 Mars -93535-01-08 09:49 J -32442228.28 -32442228.09 -32442227.90 0.1627 0.0189
 Saturn -93533-02-03 12:13 J -32441472.20 -32441471.99 -32441471.77 0.0281 0.0119
 Saturn -93532-02-15 14:23 J -32441094.10 -32441093.90 -32441093.70 0.0282 0.0153
 Saturn -93519-08-13 00:56 J -32436167.69 -32436167.46 -32436167.23 0.0277 0.0104
 Jupiter -93519-09-23 11:01 J -32436126.19 -32436126.04 -32436125.89 0.0540 0.0396
 Neptune -93518-02-28 15:35 J -32435968.01 -32435967.85 -32435967.66 0.0089 0.0068
 Saturn -93518-08-26 05:01 J -32435789.49 -32435789.29 -32435789.06 0.0277 0.0144
 Neptune -93517-03-02 02:23 J -32435600.62 -32435600.40 -32435600.15 0.0089 0.0031
 Neptune -93516-03-04 13:54 J -32435233.19 -32435232.92 -32435232.65 0.0089 0.0005
 Neptune -93515-03-07 05:15 J -32434865.51 -32434865.28 -32434865.04 0.0089 0.0032
 Neptune -93514-03-09 12:13 J -32434498.18 -32434497.99 -32434497.77 0.0089 0.0057
 Jupiter -93507-09-28 20:23 J -32431737.88 -32431737.65 -32431737.43 0.0541 0.0009
 Saturn -93504-01-28 15:49 J -32430884.96 -32430884.84 -32430884.69 0.0281 0.0235

Saturn -93503-02-10 08:37 J -32430507.39 -32430507.14 -32430506.89 0.0282 0.0034
 Uranus -93501-04-05 15:35 J -32429722.02 -32429721.85 -32429721.66 0.0147 0.0102
 Uranus -93500-04-11 05:30 J -32429351.51 -32429351.27 -32429351.02 0.0147 0.0056
 Uranus -93499-04-16 09:35 J -32428981.36 -32428981.10 -32428980.85 0.0146 0.0014
 Uranus -93498-04-22 01:54 J -32428610.66 -32428610.42 -32428610.17 0.0146 0.0048
 Uranus -93497-04-26 04:03 J -32428240.54 -32428240.33 -32428240.10 0.0146 0.0082
 Uranus -93496-05-01 20:23 J -32427869.73 -32427869.65 -32427869.55 0.0145 0.0135
 Jupiter -93495-10-03 13:39 J -32427350.06 -32427349.93 -32427349.80 0.0542 0.0452
 Saturn -93490-08-07 14:08 J -32425581.07 -32425580.91 -32425580.73 0.0278 0.0204
 Jupiter -93489-03-17 09:20 J -32425358.29 -32425358.11 -32425357.92 0.0488 0.0292
 Saturn -93489-08-19 21:49 J -32425202.83 -32425202.59 -32425202.35 0.0277 0.0046
 Mars -93488-01-02 23:30 J -32425066.61 -32425066.52 -32425066.43 0.1637 0.1425
 Jupiter -93477-03-21 11:01 J -32420971.28 -32420971.04 -32420970.79 0.0487 0.0037
 Saturn -93474-02-04 23:01 J -32419920.76 -32419920.54 -32419920.32 0.0281 0.0084
 Saturn -93473-02-18 00:42 J -32419542.64 -32419542.47 -32419542.28 0.0282 0.0188
 Jupiter -93465-03-25 22:18 J -32416583.71 -32416583.57 -32416583.42 0.0486 0.0375
 Saturn -93460-08-14 09:20 J -32414616.35 -32414616.11 -32414615.86 0.0277 0.0072
 Saturn -93459-08-27 09:06 J -32414238.32 -32414238.12 -32414237.92 0.0277 0.0171
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 Uranus -93458-10-15 15:35 J -32413824.07 -32413823.85 -32413823.62 0.0132 0.0064
 Uranus -93457-10-18 18:13 J -32413454.95 -32413454.74 -32413454.50 0.0132 0.0044
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 Uranus -93453-11-02 21:06 J -32411978.77 -32411978.62 -32411978.44 0.0133 0.0096
 Uranus -93452-11-06 19:25 J -32411609.74 -32411609.69 -32411609.62 0.0134 0.0130
 Mars -93448-07-12 23:44 J -32410265.67 -32410265.51 -32410265.35 0.1897 0.1068
 Pluto -93446-05-13 14:37 J -32409596.00 -32409595.89 -32409595.73 0.0066 0.0058
 Saturn -93445-01-30 16:18 J -32409333.98 -32409333.82 -32409333.64 0.0281 0.0201

Pluto -93445-05-14 05:15 J -32409229.50 -32409229.28 -32409229.05 0.0067 0.0033
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 Neptune -93437-09-06 01:54 J -32406192.45 -32406192.42 -32406192.34 0.0088 0.0086
 Neptune -93436-09-08 07:54 J -32405825.37 -32405825.17 -32405824.95 0.0088 0.0051
 Jupiter -93436-09-22 12:42 J -32405811.06 -32405810.97 -32405810.87 0.0540 0.0489
 Neptune -93435-09-11 02:08 J -32405457.65 -32405457.41 -32405457.16 0.0088 0.0026
 Neptune -93434-09-13 06:13 J -32405090.49 -32405090.24 -32405089.98 0.0088 0.0009
 Neptune -93433-09-14 23:15 J -32404722.77 -32404722.53 -32404722.28 0.0088 0.0034
 Neptune -93432-09-17 04:47 J -32404355.44 -32404355.30 -32404355.13 0.0088 0.0069
 Saturn -93431-08-08 23:44 J -32404029.69 -32404029.51 -32404029.31 0.0278 0.0174
 Saturn -93430-08-22 10:18 J -32403651.30 -32403651.07 -32403650.84 0.0277 0.0075
 Jupiter -93424-09-27 11:15 J -32401423.26 -32401423.03 -32401422.79 0.0541 0.0078
 Uranus -93418-04-01 16:47 J -32399410.86 -32399410.80 -32399410.72 0.0147 0.0141
 Uranus -93417-04-06 00:42 J -32399040.62 -32399040.47 -32399040.28 0.0147 0.0107
 Uranus -93416-04-11 12:56 J -32398670.20 -32398669.96 -32398669.70 0.0147 0.0055
 Saturn -93415-02-06 06:13 J -32398369.48 -32398369.24 -32398369.00 0.0281 0.0053
 Uranus -93415-04-16 17:59 J -32398300.00 -32398299.75 -32398299.50 0.0146 0.0001
 Saturn -93414-02-19 03:06 J -32397991.52 -32397991.37 -32397991.21 0.0282 0.0218
 Uranus -93414-04-22 09:20 J -32397929.37 -32397929.11 -32397928.85 0.0146 0.0034
 Uranus -93413-04-26 11:30 J -32397559.20 -32397559.02 -32397558.81 0.0146 0.0096
 Uranus -93412-05-02 04:03 J -32397188.42 -32397188.33 -32397188.21 0.0145 0.0133
 Jupiter -93412-10-02 20:08 J -32397034.80 -32397034.66 -32397034.50 0.0543 0.0405
 Mars -93409-01-05 19:54 J -32396209.82 -32396209.67 -32396209.53 0.1635 0.0892
 Jupiter -93406-03-17 10:47 J -32395043.22 -32395043.05 -32395042.86 0.0488 0.0328
 Saturn -93401-08-15 12:13 J -32393065.24 -32393064.99 -32393064.73 0.0277 0.0044
 Saturn -93400-08-28 13:39 J -32392687.09 -32392686.93 -32392686.75 0.0276 0.0200
 Jupiter -93394-03-21 20:23 J -32390655.88 -32390655.65 -32390655.42 0.0487 0.0006
 Saturn -93386-01-31 15:06 J -32387783.06 -32387782.87 -32387782.68 0.0281 0.0173
 Saturn -93385-02-13 14:51 J -32387405.10 -32387404.88 -32387404.66 0.0282 0.0097
 Jupiter -93382-03-26 05:30 J -32386268.44 -32386268.27 -32386268.08 0.0486 0.0336

Mars -93377-01-13 06:56 J -32384514.34 -32384514.21 -32384514.08 0.1623 0.1026
 Uranus -93376-10-07 20:37 J -32383880.65 -32383880.64 -32383880.58 0.0132 0.0131
 Uranus -93375-10-12 01:25 J -32383511.59 -32383511.44 -32383511.26 0.0132 0.0097
 Uranus -93374-10-15 23:15 J -32383142.74 -32383142.53 -32383142.31 0.0132 0.0071
 Uranus -93373-10-19 03:49 J -32382773.57 -32382773.34 -32382773.10 0.0132 0.0028
 Saturn -93372-08-10 11:15 J -32382478.23 -32382478.03 -32382477.82 0.0278 0.0145
 Uranus -93372-10-23 00:56 J -32382404.71 -32382404.46 -32382404.20 0.0132 0.0008
 Saturn -93371-08-23 19:11 J -32382099.92 -32382099.70 -32382099.46 0.0277 0.0103
 Uranus -93371-10-27 05:30 J -32382035.50 -32382035.27 -32382035.04 0.0133 0.0039
 Uranus -93370-10-31 02:08 J -32381666.63 -32381666.41 -32381666.18 0.0133 0.0060
 Mars -93369-07-16 12:56 J -32381407.11 -32381406.96 -32381406.80 0.1902 0.1244
 Uranus -93369-11-03 06:56 J -32381297.36 -32381297.21 -32381297.05 0.0133 0.0101
 Uranus -93368-11-07 03:20 J -32380928.40 -32380928.36 -32380928.28 0.0134 0.0130
 Pluto -93360-11-15 13:54 J -32377998.08 -32377997.92 -32377997.72 0.0078 0.0055
 Pluto -93359-11-17 09:06 J -32377631.17 -32377631.12 -32377631.01 0.0077 0.0073
 Saturn -93356-02-07 06:42 J -32376818.47 -32376818.22 -32376817.97 0.0281 0.0024
 Saturn -93355-02-20 01:39 J -32376440.53 -32376440.43 -32376440.31 0.0282 0.0250
 Neptune -93354-02-28 01:54 J -32376067.54 -32376067.42 -32376067.27 0.0089 0.0075
 Neptune -93353-03-01 11:44 J -32375700.22 -32375700.01 -32375699.78 0.0089 0.0050
 Neptune -93352-03-04 04:18 J -32375332.56 -32375332.32 -32375332.06 0.0089 0.0013
 Neptune -93351-03-06 10:47 J -32374965.31 -32374965.05 -32374964.79 0.0089 0.0011
 Neptune -93350-03-09 05:44 J -32374597.46 -32374597.26 -32374597.03 0.0089 0.0050
 Neptune -93349-03-10 11:30 J -32374230.15 -32374230.02 -32374229.86 0.0089 0.0073
 Saturn -93343-08-04 07:39 J -32371892.25 -32371892.18 -32371892.10 0.0278 0.0265
 Saturn -93342-08-17 16:18 J -32371514.06 -32371513.82 -32371513.57 0.0277 0.0018
 Saturn -93341-08-29 21:49 J -32371135.71 -32371135.59 -32371135.44 0.0276 0.0227
 Jupiter -93341-09-26 21:49 J -32371107.80 -32371107.59 -32371107.37 0.0541 0.0115
 Uranus -93333-04-06 09:20 J -32368359.29 -32368359.11 -32368358.91 0.0147 0.0095
 Uranus -93332-04-11 20:23 J -32367988.90 -32367988.65 -32367988.40 0.0147 0.0051
 Uranus -93331-04-17 02:37 J -32367618.64 -32367618.39 -32367618.13 0.0146 0.0009

Mars -93330-01-07 13:11 J -32367353.12 -32367352.95 -32367352.77 0.1632 0.0057
 Uranus -93330-04-22 17:01 J -32367248.03 -32367247.79 -32367247.53 0.0146 0.0051
 Uranus -93329-04-26 19:54 J -32366877.86 -32366877.67 -32366877.44 0.0146 0.0084
 Jupiter -93329-10-02 01:54 J -32366719.59 -32366719.42 -32366719.23 0.0542 0.0351
 Uranus -93328-05-02 11:44 J -32366507.07 -32366507.01 -32366506.91 0.0145 0.0137
 Saturn -93327-02-01 17:30 J -32366231.96 -32366231.77 -32366231.56 0.0281 0.0143
 Saturn -93326-02-14 19:11 J -32365853.91 -32365853.70 -32365853.48 0.0282 0.0127
 Jupiter -93323-03-16 21:49 J -32364727.74 -32364727.59 -32364727.44 0.0488 0.0360
 Saturn -93313-08-11 17:15 J -32360927.00 -32360926.78 -32360926.54 0.0278 0.0117
 Saturn -93312-08-24 20:08 J -32360548.88 -32360548.66 -32360548.42 0.0277 0.0128
 Jupiter -93311-03-21 08:08 J -32360340.41 -32360340.16 -32360339.92 0.0487 0.0012
 Jupiter -93299-03-25 11:59 J -32355953.18 -32355953.00 -32355952.82 0.0486 0.0306
 Saturn -93298-01-27 13:54 J -32355645.00 -32355644.92 -32355644.80 0.0280 0.0255
 Saturn -93297-02-09 03:35 J -32355267.59 -32355267.35 -32355267.10 0.0281 0.0008
 Saturn -93296-02-21 04:03 J -32354889.37 -32354889.33 -32354889.29 0.0282 0.0276
 Uranus -93292-10-08 05:15 J -32353199.31 -32353199.28 -32353199.21 0.0132 0.0129
 Uranus -93291-10-12 11:01 J -32352830.19 -32352830.04 -32352829.87 0.0132 0.0099
 Uranus -93290-10-16 06:56 J -32352461.42 -32352461.21 -32352460.97 0.0132 0.0061
 Uranus -93289-10-19 12:13 J -32352092.21 -32352091.99 -32352091.74 0.0132 0.0040
 Uranus -93288-10-23 08:08 J -32351723.41 -32351723.16 -32351722.91 0.0132 0.0007
 Uranus -93287-10-27 13:39 J -32351354.17 -32351353.93 -32351353.69 0.0133 0.0027
 Uranus -93286-10-31 09:06 J -32350985.32 -32350985.12 -32350984.90 0.0133 0.0072
 Uranus -93285-11-03 15:20 J -32350616.02 -32350615.86 -32350615.68 0.0133 0.0095
 Saturn -93284-08-05 11:30 J -32350341.14 -32350341.02 -32350340.89 0.0278 0.0237
 Uranus -93284-11-07 11:01 J -32350247.06 -32350247.04 -32350246.98 0.0134 0.0132
 Mars -93283-01-01 19:25 J -32350191.71 -32350191.69 -32350191.66 0.1644 0.1618
 Saturn -93283-08-19 00:42 J -32349962.71 -32349962.47 -32349962.23 0.0277 0.0009
 Saturn -93282-09-01 06:13 J -32349584.34 -32349584.24 -32349584.13 0.0276 0.0250
 Neptune -93272-09-08 02:37 J -32345924.57 -32345924.39 -32345924.21 0.0088 0.0063
 Neptune -93271-09-10 06:42 J -32345557.43 -32345557.22 -32345556.98 0.0088 0.0041

Neptune -93270-09-12 23:44 J -32345189.77 -32345189.51 -32345189.24 0.0088 0.0003
 Neptune -93269-09-14 06:13 J -32344822.47 -32344822.24 -32344821.98 0.0088 0.0021
 Saturn -93268-02-02 21:20 J -32344680.82 -32344680.61 -32344680.39 0.0281 0.0114
 Neptune -93268-09-16 18:27 J -32344454.91 -32344454.73 -32344454.50 0.0088 0.0058
 Saturn -93267-02-15 18:27 J -32344302.94 -32344302.73 -32344302.52 0.0282 0.0152
 Neptune -93267-09-19 06:27 J -32344087.32 -32344087.23 -32344087.11 0.0088 0.0080
 Jupiter -93258-09-26 19:25 J -32340792.91 -32340792.69 -32340792.46 0.0540 0.0191
 Saturn -93254-08-13 16:18 J -32339376.06 -32339375.82 -32339375.57 0.0278 0.0092
 Saturn -93253-08-25 18:56 J -32338997.91 -32338997.71 -32338997.50 0.0277 0.0151
 Mars -93251-01-09 09:49 J -32338496.28 -32338496.09 -32338495.91 0.1630 0.0210
 Uranus -93250-04-02 07:54 J -32338048.26 -32338048.17 -32338048.05 0.0147 0.0134
 Uranus -93249-04-06 19:11 J -32337677.88 -32337677.70 -32337677.51 0.0147 0.0101
 Uranus -93248-04-12 03:49 J -32337307.59 -32337307.34 -32337307.08 0.0147 0.0048
 Uranus -93247-04-17 11:30 J -32336937.27 -32336937.02 -32336936.76 0.0146 0.0004
 Uranus -93246-04-23 00:13 J -32336566.74 -32336566.49 -32336566.22 0.0146 0.0038
 Jupiter -93246-10-01 20:51 J -32336404.82 -32336404.63 -32336404.44 0.0542 0.0273
 Uranus -93245-04-27 04:18 J -32336196.50 -32336196.32 -32336196.12 0.0146 0.0098
 Uranus -93244-05-02 19:54 J -32335825.77 -32335825.67 -32335825.56 0.0145 0.0133
 Jupiter -93240-03-16 09:35 J -32334412.25 -32334412.10 -32334411.94 0.0488 0.0377
 Saturn -93239-01-28 10:03 J -32334094.21 -32334094.08 -32334093.92 0.0280 0.0225
 Saturn -93238-02-10 04:32 J -32333716.55 -32333716.31 -32333716.08 0.0281 0.0035
 Jupiter -93228-03-20 14:08 J -32330025.14 -32330024.91 -32330024.68 0.0487 0.0035
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 Saturn -93224-08-20 06:56 J -32328411.45 -32328411.21 -32328410.96 0.0277 0.0034
 Saturn -93223-09-02 07:25 J -32328033.21 -32328033.19 -32328033.14 0.0276 0.0274
 Jupiter -93216-03-25 03:35 J -32325637.55 -32325637.35 -32325637.15 0.0486 0.0271
 Saturn -93209-02-04 19:54 J -32323129.90 -32323129.67 -32323129.43 0.0281 0.0084
 Saturn -93208-02-16 12:42 J -32322752.15 -32322751.97 -32322751.77 0.0282 0.0181
 Uranus -93208-10-08 13:54 J -32322518.01 -32322517.92 -32322517.83 0.0132 0.0123
 Uranus -93207-10-12 20:23 J -32322148.81 -32322148.65 -32322148.47 0.0132 0.0092

Uranus -93206-10-16 15:35 J -32321780.06 -32321779.85 -32321779.62 0.0132 0.0066
 Uranus -93205-10-19 22:18 J -32321410.81 -32321410.57 -32321410.33 0.0132 0.0024
 Mars -93204-01-03 22:03 J -32321334.74 -32321334.58 -32321334.43 0.1640 0.0926
 Uranus -93204-10-23 17:15 J -32321042.03 -32321041.78 -32321041.53 0.0132 0.0005
 Uranus -93203-10-27 23:44 J -32320672.74 -32320672.51 -32320672.28 0.0133 0.0042
 Uranus -93202-10-31 17:59 J -32320303.96 -32320303.75 -32320303.51 0.0133 0.0062
 Uranus -93201-11-04 00:56 J -32319934.60 -32319934.46 -32319934.30 0.0133 0.0104
 Uranus -93200-11-07 19:39 J -32319565.72 -32319565.68 -32319565.60 0.0134 0.0130
 Pluto -93197-05-14 20:51 J -32318646.87 -32318646.63 -32318646.35 0.0066 0.0024
 Saturn -93195-08-14 15:20 J -32317825.10 -32317824.86 -32317824.62 0.0278 0.0068
 Saturn -93194-08-27 23:01 J -32317446.71 -32317446.54 -32317446.34 0.0278 0.0177
 Neptune -93190-02-27 10:47 J -32316167.09 -32316167.05 -32316166.99 0.0089 0.0087
 Neptune -93189-03-01 03:20 J -32315799.51 -32315799.36 -32315799.16 0.0089 0.0064
 Neptune -93188-03-03 08:51 J -32315432.36 -32315432.13 -32315431.87 0.0089 0.0026
 Neptune -93187-03-06 04:03 J -32315064.58 -32315064.33 -32315064.07 0.0089 0.0003
 Neptune -93186-03-08 09:20 J -32314697.33 -32314697.11 -32314696.86 0.0089 0.0035
 Neptune -93185-03-10 03:20 J -32314329.55 -32314329.36 -32314329.16 0.0089 0.0060
 Saturn -93180-01-29 12:13 J -32312543.15 -32312542.99 -32312542.82 0.0280 0.0195
 Saturn -93179-02-11 09:35 J -32312165.33 -32312165.10 -32312164.87 0.0281 0.0065
 Jupiter -93175-09-25 22:47 J -32310477.75 -32310477.55 -32310477.35 0.0540 0.0240
 Mars -93172-01-11 12:42 J -32309639.10 -32309638.97 -32309638.84 0.1627 0.1199
 Uranus -93166-04-02 15:06 J -32307366.89 -32307366.87 -32307366.81 0.0147 0.0145
 Saturn -93166-08-08 23:59 J -32307238.68 -32307238.50 -32307238.31 0.0278 0.0185
 Uranus -93165-04-07 04:03 J -32306996.53 -32306996.33 -32306996.12 0.0147 0.0086
 Saturn -93165-08-21 07:11 J -32306860.45 -32306860.20 -32306859.95 0.0277 0.0060
 Uranus -93164-04-12 11:44 J -32306626.27 -32306626.01 -32306625.76 0.0147 0.0046
 Mars -93164-07-11 13:11 J -32306536.10 -32306535.95 -32306535.80 0.1891 0.1469
 Uranus -93163-04-17 20:51 J -32306255.88 -32306255.63 -32306255.37 0.0146 0.0003
 Jupiter -93163-10-01 11:15 J -32306089.24 -32306089.03 -32306088.82 0.0542 0.0239
 Uranus -93162-04-23 08:23 J -32305885.39 -32305885.15 -32305884.89 0.0146 0.0055

Uranus -93161-04-27 13:25 J -32305515.13 -32305514.94 -32305514.72 0.0146 0.0086
 Uranus -93160-05-03 04:03 J -32305144.40 -32305144.33 -32305144.26 0.0145 0.0140
 Jupiter -93157-03-15 14:23 J -32304097.01 -32304096.90 -32304096.76 0.0489 0.0406
 Saturn -93150-02-05 15:06 J -32301579.11 -32301578.87 -32301578.62 0.0281 0.0053
 Saturn -93149-02-18 11:01 J -32301201.19 -32301201.04 -32301200.87 0.0282 0.0208
 Jupiter -93145-03-20 06:13 J -32299709.48 -32299709.24 -32299709.01 0.0488 0.0061
 Saturn -93136-08-15 18:27 J -32296273.97 -32296273.73 -32296273.49 0.0279 0.0044
 Saturn -93135-08-29 05:01 J -32295895.45 -32295895.29 -32295895.11 0.0278 0.0200
 Jupiter -93133-03-24 06:56 J -32295322.41 -32295322.21 -32295322.00 0.0487 0.0241
 Mars -93125-01-07 04:03 J -32292477.52 -32292477.33 -32292477.14 0.1637 0.0433
 Uranus -93124-10-08 22:32 J -32291836.64 -32291836.56 -32291836.46 0.0132 0.0123
 Uranus -93123-10-13 05:30 J -32291467.42 -32291467.27 -32291467.08 0.0132 0.0093
 Uranus -93122-10-16 23:44 J -32291098.72 -32291098.51 -32291098.27 0.0132 0.0057
 Saturn -93121-01-31 18:13 J -32290991.92 -32290991.74 -32290991.55 0.0280 0.0165
 Uranus -93121-10-20 06:56 J -32290729.44 -32290729.21 -32290728.97 0.0132 0.0034
 Saturn -93120-02-12 12:56 J -32290614.19 -32290613.96 -32290613.73 0.0281 0.0093
 Uranus -93120-10-24 01:11 J -32290360.70 -32290360.45 -32290360.20 0.0132 0.0011
 Uranus -93119-10-28 08:08 J -32289991.39 -32289991.16 -32289990.92 0.0133 0.0030
 Uranus -93118-11-01 02:08 J -32289622.60 -32289622.41 -32289622.19 0.0133 0.0075
 Uranus -93117-11-04 09:49 J -32289253.24 -32289253.09 -32289252.90 0.0133 0.0097
 Pluto -93111-11-17 23:30 J -32287048.77 -32287048.52 -32287048.26 0.0077 0.0002
 Neptune -93108-09-07 06:42 J -32286024.30 -32286024.22 -32286024.12 0.0088 0.0082
 Saturn -93107-08-10 00:42 J -32285687.67 -32285687.47 -32285687.25 0.0278 0.0161
 Neptune -93107-09-09 23:01 J -32285656.75 -32285656.54 -32285656.30 0.0088 0.0048
 Saturn -93106-08-23 05:44 J -32285309.49 -32285309.26 -32285309.01 0.0278 0.0084
 Neptune -93106-09-12 07:25 J -32285289.42 -32285289.19 -32285288.94 0.0088 0.0022
 Neptune -93105-09-13 18:42 J -32284921.98 -32284921.72 -32284921.45 0.0088 0.0012
 Neptune -93104-09-16 07:39 J -32284554.40 -32284554.18 -32284553.95 0.0088 0.0038
 Neptune -93103-09-18 13:25 J -32284187.07 -32284186.94 -32284186.76 0.0088 0.0072
 Mars -93093-01-14 18:42 J -32280781.80 -32280781.72 -32280781.64 0.1625 0.1461

Saturn	-93092-01-25 01:54 J	-32280405.44	-32280405.42	-32280405.38	0.0280	0.0277
Jupiter	-93092-09-25 11:01 J	-32280162.23	-32280162.04	-32280161.83	0.0540	0.0273
Saturn	-93091-02-06 15:35 J	-32280028.08	-32280027.85	-32280027.61	0.0281	0.0023
Saturn	-93090-02-19 16:03 J	-32279649.95	-32279649.83	-32279649.69	0.0281	0.0234
Mars	-93085-07-15 20:37 J	-32277676.79	-32277676.64	-32277676.48	0.1897	0.1257
Uranus	-93082-04-02 23:15 J	-32276685.65	-32276685.53	-32276685.38	0.0147	0.0126
Uranus	-93081-04-07 13:11 J	-32276315.14	-32276314.95	-32276314.76	0.0147	0.0094
Uranus	-93080-04-12 18:42 J	-32275944.97	-32275944.72	-32275944.45	0.0147	0.0040
Jupiter	-93080-09-30 04:03 J	-32275774.54	-32275774.33	-32275774.11	0.0541	0.0166
Uranus	-93079-04-18 05:44 J	-32275574.51	-32275574.26	-32275574.01	0.0146	0.0008
Uranus	-93078-04-23 15:35 J	-32275204.10	-32275203.85	-32275203.59	0.0146	0.0043
Saturn	-93078-08-04 07:11 J	-32275101.25	-32275101.20	-32275101.14	0.0280	0.0272
Uranus	-93077-04-27 22:03 J	-32274833.74	-32274833.58	-32274833.38	0.0146	0.0102
Saturn	-93077-08-17 00:27 J	-32274722.72	-32274722.48	-32274722.24	0.0279	0.0021
Uranus	-93076-05-03 11:44 J	-32274463.09	-32274463.01	-32274462.90	0.0145	0.0135
Saturn	-93076-08-30 06:56 J	-32274344.34	-32274344.21	-32274344.04	0.0278	0.0223
Jupiter	-93074-03-16 07:25 J	-32273781.31	-32273781.19	-32273781.08	0.0490	0.0426
Saturn	-93062-02-01 22:18 J	-32269440.78	-32269440.57	-32269440.35	0.0280	0.0136
Jupiter	-93062-03-20 07:39 J	-32269394.41	-32269394.18	-32269393.95	0.0488	0.0090
Saturn	-93061-02-14 11:59 J	-32269063.21	-32269063.00	-32269062.76	0.0281	0.0123
Jupiter	-93050-03-24 23:59 J	-32265006.71	-32265006.50	-32265006.29	0.0487	0.0205
Saturn	-93048-08-10 23:30 J	-32264136.73	-32264136.52	-32264136.29	0.0279	0.0138
Saturn	-93047-08-24 09:06 J	-32263758.33	-32263758.12	-32263757.89	0.0278	0.0110
Mars	-93046-01-09 05:44 J	-32263620.44	-32263620.26	-32263620.09	0.1635	0.0442
Uranus	-93040-10-09 07:39 J	-32261155.29	-32261155.18	-32261155.05	0.0132	0.0116
Uranus	-93039-10-13 15:20 J	-32260786.03	-32260785.86	-32260785.66	0.0132	0.0087
Jupiter	-93038-03-29 01:25 J	-32260619.51	-32260619.44	-32260619.37	0.0486	0.0463
Uranus	-93038-10-17 09:35 J	-32260417.32	-32260417.10	-32260416.87	0.0132	0.0060
Uranus	-93037-10-20 17:15 J	-32260048.02	-32260047.78	-32260047.53	0.0132	0.0020
Uranus	-93036-10-24 11:15 J	-32259679.28	-32259679.03	-32259678.78	0.0132	0.0002

Uranus	-93035-10-28 18:27 J	-32259309.95	-32259309.73	-32259309.49	0.0133	0.0047
Uranus	-93034-11-01 12:27 J	-32258941.19	-32258940.98	-32258940.76	0.0133	0.0064
Saturn	-93033-01-27 04:32 J	-32258854.41	-32258854.31	-32258854.20	0.0280	0.0250
Uranus	-93033-11-04 20:08 J	-32258571.80	-32258571.66	-32258571.50	0.0133	0.0107
Saturn	-93032-02-07 23:01 J	-32258476.77	-32258476.54	-32258476.30	0.0281	0.0007
Uranus	-93032-11-08 14:23 J	-32258202.93	-32258202.90	-32258202.84	0.0134	0.0131
Saturn	-93031-02-20 22:47 J	-32258098.63	-32258098.55	-32258098.45	0.0281	0.0262
Neptune	-93025-02-29 07:11 J	-32255899.32	-32255899.20	-32255899.02	0.0089	0.0072
Neptune	-93024-03-03 01:54 J	-32255531.61	-32255531.42	-32255531.17	0.0089	0.0048
Neptune	-93023-03-05 08:23 J	-32255164.39	-32255164.15	-32255163.89	0.0089	0.0010
Neptune	-93022-03-08 01:11 J	-32254796.70	-32254796.45	-32254796.18	0.0089	0.0014
Neptune	-93021-03-09 10:18 J	-32254429.25	-32254429.07	-32254428.84	0.0089	0.0052
Neptune	-93020-03-11 22:32 J	-32254061.67	-32254061.56	-32254061.40	0.0089	0.0076
Saturn	-93019-08-05 14:37 J	-32253549.99	-32253549.89	-32253549.77	0.0280	0.0249
Saturn	-93018-08-19 04:03 J	-32253171.59	-32253171.33	-32253171.08	0.0279	0.0003
Saturn	-93017-08-31 06:13 J	-32252793.35	-32252793.24	-32252793.12	0.0278	0.0247
Jupiter	-93009-09-24 02:23 J	-32249847.57	-32249847.40	-32249847.22	0.0539	0.0347
Saturn	-93003-02-02 23:15 J	-32247889.75	-32247889.53	-32247889.29	0.0280	0.0106
Saturn	-93002-02-15 14:08 J	-32247512.12	-32247511.91	-32247511.71	0.0280	0.0152

93RD MILLENNIUM BCE

This is a list of transits of Moon in the 93rd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Mars	-92999-01-03 11:59 J	-32246459.12	-32246459.00	-32246458.88	0.1646	0.1155
Uranus	-92998-04-03 07:39 J	-32246004.26	-32246004.18	-32246004.08	0.0147	0.0138
Uranus	-92997-04-07 22:18 J	-32245633.78	-32245633.57	-32245633.35	0.0147	0.0078
Jupiter	-92997-09-29 12:56 J	-32245459.18	-32245458.96	-32245458.74	0.0541	0.0106
Uranus	-92996-04-13 02:51 J	-32245263.62	-32245263.38	-32245263.11	0.0147	0.0042
Uranus	-92995-04-18 15:20 J	-32244893.11	-32244892.86	-32244892.61	0.0146	0.0004
Uranus	-92994-04-23 23:30 J	-32244522.76	-32244522.52	-32244522.26	0.0146	0.0058
Uranus	-92993-04-28 07:39 J	-32244152.36	-32244152.18	-32244151.97	0.0146	0.0090
Uranus	-92992-05-03 19:25 J	-32243781.69	-32243781.69	-32243781.63	0.0145	0.0145
Jupiter	-92991-03-15 08:08 J	-32243466.23	-32243466.16	-32243466.07	0.0490	0.0457
Saturn	-92989-08-12 05:01 J	-32242585.50	-32242585.29	-32242585.06	0.0279	0.0113
Saturn	-92988-08-25 18:13 J	-32242206.94	-32242206.74	-32242206.53	0.0278	0.0136
Jupiter	-92985-10-04 13:54 J	-32241071.02	-32241070.92	-32241070.82	0.0542	0.0490
Jupiter	-92979-03-19 22:47 J	-32239078.77	-32239078.55	-32239078.33	0.0488	0.0125
Saturn	-92974-01-28 13:11 J	-32237303.08	-32237302.95	-32237302.79	0.0280	0.0220
Saturn	-92973-02-10 07:25 J	-32236925.43	-32236925.19	-32236924.95	0.0280	0.0036
Mars	-92967-01-11 00:13 J	-32234763.64	-32234763.49	-32234763.33	0.1632	0.0720
Jupiter	-92967-03-24 01:25 J	-32234691.67	-32234691.44	-32234691.21	0.0487	0.0158
Saturn	-92960-08-06 18:13 J	-32231998.89	-32231998.74	-32231998.59	0.0280	0.0223
Saturn	-92959-08-20 03:49 J	-32231620.60	-32231620.34	-32231620.08	0.0279	0.0027
Saturn	-92958-09-02 07:39 J	-32231242.22	-32231242.18	-32231242.11	0.0278	0.0272
Uranus	-92956-10-09 17:01 J	-32230473.89	-32230473.79	-32230473.67	0.0131	0.0118
Jupiter	-92955-03-28 11:15 J	-32230304.13	-32230304.03	-32230303.92	0.0487	0.0425
Uranus	-92955-10-14 00:56 J	-32230104.63	-32230104.46	-32230104.26	0.0132	0.0086
Uranus	-92954-10-17 18:42 J	-32229735.94	-32229735.72	-32229735.48	0.0132	0.0052
Uranus	-92953-10-21 02:23 J	-32229366.64	-32229366.40	-32229366.15	0.0132	0.0028
Uranus	-92952-10-24 20:08 J	-32228997.90	-32228997.66	-32228997.41	0.0132	0.0016
Uranus	-92951-10-29 03:49 J	-32228628.58	-32228628.34	-32228628.10	0.0132	0.0034
Uranus	-92950-11-01 21:20 J	-32228259.79	-32228259.61	-32228259.39	0.0133	0.0079
Uranus	-92949-11-05 05:44 J	-32227890.42	-32227890.26	-32227890.08	0.0133	0.0098

Pluto -92948-05-17 04:18 J -32227697.56 -32227697.32 -32227697.05 0.0067 0.0018
 Saturn -92944-02-04 03:20 J -32226338.59 -32226338.36 -32226338.12 0.0280 0.0074
 Saturn -92943-02-16 23:30 J -32225960.69 -32225960.52 -32225960.33 0.0280 0.0181
 Neptune -92943-09-09 06:27 J -32225756.40 -32225756.23 -32225756.03 0.0088 0.0060
 Neptune -92942-09-11 17:15 J -32225389.02 -32225388.78 -32225388.53 0.0088 0.0038
 Neptune -92941-09-13 07:54 J -32225021.42 -32225021.17 -32225020.92 0.0088 0.0001
 Neptune -92940-09-15 13:25 J -32224654.18 -32224653.94 -32224653.67 0.0088 0.0023
 Neptune -92939-09-18 06:42 J -32224286.39 -32224286.22 -32224286.02 0.0088 0.0061
 Neptune -92938-09-20 10:18 J -32223919.15 -32223919.07 -32223918.96 0.0088 0.0082
 Saturn -92930-08-14 17:01 J -32221034.02 -32221033.79 -32221033.56 0.0279 0.0085
 Saturn -92929-08-27 03:49 J -32220655.53 -32220655.34 -32220655.13 0.0278 0.0162
 Jupiter -92926-09-24 12:13 J -32219532.14 -32219531.99 -32219531.83 0.0539 0.0391
 Mars -92920-01-05 05:01 J -32217602.45 -32217602.29 -32217602.12 0.1644 0.0498
 Saturn -92915-01-29 23:44 J -32215751.67 -32215751.51 -32215751.32 0.0280 0.0188
 Saturn -92914-02-11 12:42 J -32215374.21 -32215373.97 -32215373.72 0.0280 0.0065
 Uranus -92914-04-03 16:18 J -32215322.95 -32215322.82 -32215322.65 0.0147 0.0119
 Jupiter -92914-09-29 12:13 J -32215144.23 -32215143.99 -32215143.76 0.0540 0.0052
 Uranus -92913-04-08 07:39 J -32214952.37 -32214952.18 -32214951.96 0.0147 0.0089
 Uranus -92912-04-13 11:15 J -32214582.29 -32214582.03 -32214581.77 0.0147 0.0033
 Uranus -92911-04-19 00:56 J -32214211.71 -32214211.46 -32214211.21 0.0146 0.0011
 Uranus -92910-04-24 07:54 J -32213841.42 -32213841.17 -32213840.91 0.0146 0.0047
 Uranus -92909-04-28 17:30 J -32213470.92 -32213470.77 -32213470.57 0.0146 0.0106
 Uranus -92908-05-04 05:01 J -32213100.37 -32213100.29 -32213100.20 0.0145 0.0137
 Jupiter -92902-10-04 16:47 J -32210755.94 -32210755.80 -32210755.66 0.0541 0.0420
 Saturn -92901-08-07 19:54 J -32210447.84 -32210447.67 -32210447.48 0.0280 0.0197
 Saturn -92900-08-21 07:54 J -32210069.41 -32210069.17 -32210068.93 0.0279 0.0053
 Jupiter -92896-03-18 22:18 J -32208763.80 -32208763.57 -32208763.35 0.0489 0.0168
 Saturn -92885-02-06 13:39 J -32204787.16 -32204786.93 -32204786.70 0.0280 0.0043
 Saturn -92884-02-18 12:27 J -32204409.12 -32204408.98 -32204408.81 0.0280 0.0211
 Jupiter -92884-03-23 08:51 J -32204376.35 -32204376.13 -32204375.90 0.0488 0.0109

Mars -92880-07-09 17:44 J -32202806.83 -32202806.76 -32202806.69 0.1883 0.1765
 Jupiter -92872-03-27 18:42 J -32199988.86 -32199988.72 -32199988.56 0.0487 0.0381
 Uranus -92872-10-10 02:51 J -32199792.50 -32199792.38 -32199792.22 0.0132 0.0110
 Saturn -92871-08-16 04:03 J -32199482.58 -32199482.33 -32199482.09 0.0279 0.0055
 Uranus -92871-10-14 11:01 J -32199423.22 -32199423.04 -32199422.83 0.0132 0.0082
 Saturn -92870-08-29 09:35 J -32199104.28 -32199104.10 -32199103.91 0.0278 0.0190
 Uranus -92870-10-18 05:15 J -32199054.50 -32199054.28 -32199054.05 0.0132 0.0054
 Uranus -92869-10-21 12:56 J -32198685.20 -32198684.96 -32198684.70 0.0132 0.0015
 Uranus -92868-10-25 06:56 J -32198316.45 -32198316.21 -32198315.96 0.0132 0.0006
 Uranus -92867-10-29 14:23 J -32197947.12 -32197946.90 -32197946.66 0.0132 0.0050
 Uranus -92866-11-02 08:23 J -32197578.34 -32197578.15 -32197577.92 0.0133 0.0068
 Uranus -92865-11-05 16:18 J -32197208.95 -32197208.82 -32197208.67 0.0133 0.0110
 Uranus -92864-11-09 11:01 J -32196840.05 -32196840.04 -32196840.01 0.0133 0.0133
 Pluto -92862-11-20 11:15 J -32196099.20 -32196099.03 -32196098.82 0.0077 0.0050
 Neptune -92861-02-28 23:15 J -32195998.58 -32195998.53 -32195998.43 0.0089 0.0085
 Neptune -92860-03-02 05:30 J -32195631.43 -32195631.27 -32195631.07 0.0089 0.0062
 Neptune -92859-03-04 20:51 J -32195263.87 -32195263.63 -32195263.36 0.0089 0.0024
 Neptune -92858-03-07 08:08 J -32194896.41 -32194896.16 -32194895.91 0.0089 0.0000
 Neptune -92857-03-08 18:56 J -32194528.94 -32194528.71 -32194528.45 0.0089 0.0037
 Saturn -92856-01-31 07:39 J -32194200.39 -32194200.18 -32194199.97 0.0280 0.0153
 Neptune -92856-03-11 10:47 J -32194161.22 -32194161.05 -32194160.85 0.0089 0.0061
 Saturn -92855-02-12 18:13 J -32193822.96 -32193822.74 -32193822.50 0.0280 0.0099
 Jupiter -92843-09-23 06:13 J -32189217.36 -32189217.24 -32189217.11 0.0538 0.0448
 Saturn -92842-08-10 03:49 J -32188896.53 -32188896.34 -32188896.14 0.0280 0.0168
 Mars -92841-01-08 02:23 J -32188745.58 -32188745.40 -32188745.21 0.1641 0.0046
 Saturn -92841-08-22 19:25 J -32188517.91 -32188517.69 -32188517.46 0.0279 0.0083
 Jupiter -92831-09-28 12:42 J -32184829.19 -32184828.97 -32184828.74 0.0539 0.0027
 Uranus -92830-04-04 01:54 J -32184641.52 -32184641.42 -32184641.28 0.0147 0.0131
 Uranus -92829-04-08 17:59 J -32184270.97 -32184270.75 -32184270.52 0.0147 0.0071
 Uranus -92828-04-13 20:37 J -32183900.88 -32183900.64 -32183900.37 0.0147 0.0037

Saturn	-92827-01-26 10:18 J	-32183613.15	-32183613.07	-32183612.97	0.0279	0.0256
Uranus	-92827-04-19 11:44 J	-32183530.27	-32183530.01	-32183529.76	0.0147	0.0010
Saturn	-92826-02-08 03:35 J	-32183235.59	-32183235.35	-32183235.12	0.0280	0.0009
Uranus	-92826-04-24 16:47 J	-32183160.03	-32183159.80	-32183159.54	0.0146	0.0062
Saturn	-92825-02-20 23:15 J	-32182857.65	-32182857.53	-32182857.40	0.0281	0.0240
Uranus	-92825-04-29 04:18 J	-32182789.50	-32182789.32	-32182789.11	0.0146	0.0093
Jupiter	-92819-10-03 12:13 J	-32180441.17	-32180440.99	-32180440.80	0.0541	0.0335
Jupiter	-92813-03-18 07:11 J	-32178448.40	-32178448.20	-32178447.99	0.0489	0.0211
Saturn	-92813-08-03 23:59 J	-32178309.56	-32178309.50	-32178309.41	0.0280	0.0267
Saturn	-92812-08-17 11:15 J	-32177931.28	-32177931.03	-32177930.77	0.0279	0.0023
Saturn	-92811-08-30 15:20 J	-32177553.00	-32177552.86	-32177552.70	0.0278	0.0220
Jupiter	-92801-03-22 15:20 J	-32174061.10	-32174060.86	-32174060.61	0.0488	0.0056
Mars	-92801-07-13 18:42 J	-32173947.93	-32173947.72	-32173947.51	0.1889	0.0793
Saturn	-92797-02-02 13:11 J	-32172649.16	-32172648.95	-32172648.72	0.0280	0.0118
Saturn	-92796-02-14 04:47 J	-32172271.50	-32172271.30	-32172271.08	0.0280	0.0131
Mars	-92794-01-02 13:25 J	-32171584.04	-32171583.94	-32171583.83	0.1653	0.1389
Jupiter	-92789-03-26 18:56 J	-32169673.87	-32169673.71	-32169673.54	0.0487	0.0333
Uranus	-92788-10-10 13:11 J	-32169111.06	-32169110.95	-32169110.80	0.0131	0.0113
Uranus	-92787-10-14 20:51 J	-32168741.82	-32168741.63	-32168741.42	0.0132	0.0080
Uranus	-92786-10-18 15:06 J	-32168373.08	-32168372.87	-32168372.63	0.0132	0.0047
Uranus	-92785-10-21 22:32 J	-32168003.81	-32168003.56	-32168003.31	0.0132	0.0022
Uranus	-92784-10-25 16:47 J	-32167635.04	-32167634.80	-32167634.56	0.0132	0.0020
Saturn	-92783-08-11 17:44 J	-32167344.96	-32167344.76	-32167344.54	0.0279	0.0135
Uranus	-92783-10-29 23:44 J	-32167265.75	-32167265.51	-32167265.26	0.0132	0.0038
Saturn	-92782-08-25 09:06 J	-32166966.34	-32166966.12	-32166965.89	0.0279	0.0112
Uranus	-92782-11-02 18:27 J	-32166896.91	-32166896.73	-32166896.53	0.0133	0.0082
Uranus	-92781-11-06 01:54 J	-32166527.57	-32166527.42	-32166527.25	0.0133	0.0100
Neptune	-92779-09-08 14:37 J	-32165856.00	-32165855.89	-32165855.75	0.0088	0.0078
Neptune	-92778-09-11 06:13 J	-32165488.44	-32165488.24	-32165488.01	0.0088	0.0045
Neptune	-92777-09-12 11:30 J	-32165121.26	-32165121.02	-32165120.75	0.0088	0.0019

Neptune -92776-09-15 05:44 J -32164753.51 -32164753.26 -32164753.00 0.0088 0.0014
 Neptune -92775-09-17 09:20 J -32164386.32 -32164386.11 -32164385.87 0.0088 0.0040
 Neptune -92774-09-20 02:08 J -32164018.53 -32164018.41 -32164018.24 0.0088 0.0074
 Saturn -92768-01-28 00:13 J -32162061.63 -32162061.49 -32162061.34 0.0279 0.0221
 Saturn -92767-02-09 14:51 J -32161684.12 -32161683.88 -32161683.63 0.0280 0.0025
 Saturn -92766-02-22 06:27 J -32161306.29 -32161306.23 -32161306.15 0.0281 0.0270
 Mars -92762-01-10 07:11 J -32159888.36 -32159888.20 -32159888.04 0.1638 0.0899
 Jupiter -92760-09-22 05:59 J -32158902.29 -32158902.25 -32158902.21 0.0538 0.0529
 Saturn -92754-08-06 09:20 J -32156758.24 -32156758.11 -32156757.96 0.0280 0.0233
 Saturn -92753-08-18 19:54 J -32156379.92 -32156379.67 -32156379.42 0.0279 0.0010
 Saturn -92752-09-01 03:35 J -32156001.43 -32156001.35 -32156001.24 0.0278 0.0253
 Jupiter -92748-09-27 08:08 J -32154514.40 -32154514.16 -32154513.93 0.0540 0.0103
 Uranus -92746-04-04 12:13 J -32153960.15 -32153959.99 -32153959.81 0.0147 0.0112
 Uranus -92745-04-09 04:03 J -32153589.53 -32153589.33 -32153589.11 0.0147 0.0082
 Uranus -92744-04-14 06:27 J -32153219.48 -32153219.23 -32153218.97 0.0147 0.0026
 Uranus -92743-04-19 22:18 J -32152848.82 -32152848.57 -32152848.32 0.0147 0.0016
 Uranus -92742-04-25 02:51 J -32152478.62 -32152478.38 -32152478.12 0.0146 0.0053
 Uranus -92741-04-29 15:49 J -32152107.99 -32152107.84 -32152107.66 0.0146 0.0110
 Uranus -92740-05-04 23:59 J -32151737.55 -32151737.50 -32151737.40 0.0145 0.0140
 Saturn -92738-02-03 23:44 J -32151097.73 -32151097.51 -32151097.28 0.0280 0.0083
 Saturn -92737-02-16 19:54 J -32150719.85 -32150719.67 -32150719.47 0.0281 0.0164
 Jupiter -92736-10-02 13:11 J -32150126.14 -32150125.95 -32150125.76 0.0541 0.0271
 Jupiter -92730-03-18 12:13 J -32148133.19 -32148132.99 -32148132.78 0.0489 0.0258
 Saturn -92724-08-13 08:51 J -32145793.36 -32145793.13 -32145792.90 0.0279 0.0102
 Saturn -92723-08-26 18:42 J -32145414.93 -32145414.72 -32145414.50 0.0278 0.0143
 Jupiter -92718-03-22 13:39 J -32143746.16 -32143745.93 -32143745.70 0.0489 0.0007
 Mars -92715-01-04 20:37 J -32142726.82 -32142726.64 -32142726.47 0.1650 0.0633
 Saturn -92709-01-30 09:49 J -32140510.26 -32140510.09 -32140509.91 0.0279 0.0188
 Saturn -92708-02-10 20:37 J -32140132.88 -32140132.64 -32140132.39 0.0280 0.0058
 Jupiter -92706-03-27 03:49 J -32139358.53 -32139358.34 -32139358.14 0.0488 0.0285

Uranus -92704-10-11 00:13 J -32138429.63 -32138429.49 -32138429.32 0.0131 0.0103
 Uranus -92703-10-15 07:25 J -32138060.39 -32138060.19 -32138059.97 0.0132 0.0076
 Uranus -92702-10-19 02:23 J -32137691.62 -32137691.40 -32137691.16 0.0132 0.0048
 Uranus -92701-10-22 09:35 J -32137322.35 -32137322.10 -32137321.85 0.0132 0.0009
 Pluto -92700-05-18 09:35 J -32137114.33 -32137114.10 -32137113.83 0.0067 0.0024
 Uranus -92700-10-26 04:32 J -32136953.55 -32136953.31 -32136953.07 0.0132 0.0011
 Uranus -92699-10-30 11:01 J -32136584.27 -32136584.04 -32136583.80 0.0132 0.0054
 Uranus -92698-11-03 06:13 J -32136215.43 -32136215.24 -32136215.02 0.0133 0.0071
 Uranus -92697-11-06 12:27 J -32135846.10 -32135845.98 -32135845.84 0.0133 0.0112
 Neptune -92696-03-01 18:13 J -32135730.90 -32135730.74 -32135730.57 0.0089 0.0070
 Neptune -92695-03-04 05:30 J -32135363.47 -32135363.27 -32135363.04 0.0089 0.0045
 Saturn -92695-08-07 18:56 J -32135206.87 -32135206.71 -32135206.52 0.0279 0.0201
 Neptune -92694-03-06 14:51 J -32134996.14 -32134995.88 -32134995.61 0.0089 0.0010
 Saturn -92694-08-21 09:35 J -32134828.34 -32134828.10 -32134827.86 0.0279 0.0045
 Neptune -92693-03-08 07:11 J -32134628.44 -32134628.20 -32134627.94 0.0089 0.0016
 Neptune -92692-03-10 12:56 J -32134261.15 -32134260.96 -32134260.73 0.0089 0.0052
 Neptune -92691-03-13 08:23 J -32133893.26 -32133893.15 -32133893.00 0.0089 0.0077
 Mars -92683-01-12 12:42 J -32131031.10 -32131030.97 -32131030.84 0.1635 0.1170
 Saturn -92679-02-05 14:08 J -32129546.13 -32129545.91 -32129545.68 0.0280 0.0050
 Saturn -92678-02-18 09:49 J -32129168.25 -32129168.09 -32129167.90 0.0281 0.0197
 Saturn -92665-08-14 19:39 J -32124241.93 -32124241.68 -32124241.43 0.0279 0.0068
 Jupiter -92665-09-26 09:49 J -32124199.30 -32124199.09 -32124198.88 0.0539 0.0165
 Saturn -92664-08-28 00:56 J -32123863.64 -32123863.46 -32123863.25 0.0278 0.0176
 Uranus -92662-04-04 23:01 J -32123278.68 -32123278.54 -32123278.40 0.0147 0.0122
 Uranus -92661-04-09 14:51 J -32122908.10 -32122907.88 -32122907.63 0.0147 0.0063
 Uranus -92660-04-14 17:15 J -32122538.03 -32122537.78 -32122537.52 0.0147 0.0031
 Uranus -92659-04-20 09:35 J -32122167.35 -32122167.10 -32122166.85 0.0147 0.0016
 Uranus -92658-04-25 12:42 J -32121797.19 -32121796.97 -32121796.72 0.0146 0.0066
 Uranus -92657-04-30 02:51 J -32121426.56 -32121426.38 -32121426.18 0.0146 0.0097
 Jupiter -92653-10-01 15:49 J -32119811.06 -32119810.84 -32119810.62 0.0540 0.0191

Saturn -92650-01-31 14:08 J -32118959.11 -32118958.91 -32118958.69 0.0279 0.0155
 Saturn -92649-02-13 02:37 J -32118581.61 -32118581.39 -32118581.16 0.0280 0.0091
 Jupiter -92647-03-17 10:47 J -32117818.23 -32117818.05 -32117817.87 0.0490 0.0310
 Mars -92636-01-06 22:03 J -32113869.76 -32113869.58 -32113869.40 0.1646 0.0060
 Saturn -92636-08-09 08:51 J -32113655.32 -32113655.13 -32113654.93 0.0279 0.0167
 Jupiter -92635-03-22 02:37 J -32113430.63 -32113430.39 -32113430.15 0.0489 0.0042
 Saturn -92635-08-23 01:25 J -32113276.67 -32113276.44 -32113276.21 0.0279 0.0078
 Jupiter -92623-03-26 02:23 J -32109043.60 -32109043.40 -32109043.19 0.0487 0.0243
 Saturn -92621-01-26 10:18 J -32108372.14 -32108372.07 -32108371.98 0.0279 0.0261
 Uranus -92621-10-07 15:49 J -32108116.89 -32108116.84 -32108116.74 0.0131 0.0126
 Saturn -92620-02-07 01:39 J -32107994.67 -32107994.43 -32107994.19 0.0280 0.0016
 Uranus -92620-10-11 11:44 J -32107748.14 -32107748.01 -32107747.85 0.0131 0.0106
 Saturn -92619-02-19 17:01 J -32107616.93 -32107616.79 -32107616.63 0.0281 0.0225
 Uranus -92619-10-15 17:59 J -32107378.95 -32107378.75 -32107378.52 0.0132 0.0072
 Uranus -92618-10-19 13:39 J -32107010.15 -32107009.93 -32107009.69 0.0132 0.0041
 Uranus -92617-10-22 19:25 J -32106640.94 -32106640.69 -32106640.43 0.0132 0.0016
 Uranus -92616-10-26 15:06 J -32106272.10 -32106271.87 -32106271.62 0.0132 0.0026
 Uranus -92615-10-30 20:37 J -32105902.87 -32105902.64 -32105902.38 0.0132 0.0043
 Neptune -92614-09-10 08:23 J -32105588.33 -32105588.15 -32105587.93 0.0088 0.0058
 Uranus -92614-11-03 17:15 J -32105533.96 -32105533.78 -32105533.60 0.0133 0.0085
 Pluto -92614-11-21 15:49 J -32105516.09 -32105515.84 -32105515.59 0.0077 0.0001
 Neptune -92613-09-12 03:06 J -32105220.59 -32105220.37 -32105220.12 0.0088 0.0036
 Uranus -92613-11-06 22:18 J -32105164.71 -32105164.57 -32105164.39 0.0133 0.0103
 Neptune -92612-09-14 07:54 J -32104853.42 -32104853.17 -32104852.92 0.0088 0.0002
 Neptune -92611-09-17 00:13 J -32104485.74 -32104485.49 -32104485.24 0.0088 0.0024
 Neptune -92610-09-19 07:11 J -32104118.36 -32104118.20 -32104118.01 0.0088 0.0062
 Neptune -92609-09-20 18:27 J -32103750.80 -32103750.73 -32103750.61 0.0088 0.0082
 Saturn -92606-08-17 02:51 J -32102690.64 -32102690.38 -32102690.13 0.0279 0.0037
 Saturn -92605-08-29 10:18 J -32102312.22 -32102312.07 -32102311.89 0.0278 0.0207
 Mars -92596-07-09 06:13 J -32099076.35 -32099076.24 -32099076.13 0.1876 0.1583

Saturn -92591-02-01 17:59 J -32097407.96 -32097407.75 -32097407.53 0.0280 0.0123
 Saturn -92590-02-14 12:42 J -32097030.18 -32097029.97 -32097029.76 0.0280 0.0121
 Mars -92589-01-01 23:15 J -32096708.62 -32096708.53 -32096708.43 0.1660 0.1401
 Jupiter -92582-09-26 05:59 J -32093884.45 -32093884.25 -32093884.03 0.0538 0.0258
 Uranus -92578-04-05 09:20 J -32092597.27 -32092597.11 -32092596.91 0.0147 0.0103
 Uranus -92577-04-10 01:11 J -32092226.66 -32092226.45 -32092226.21 0.0147 0.0074
 Saturn -92577-08-11 00:56 J -32092103.67 -32092103.46 -32092103.24 0.0279 0.0134
 Uranus -92576-04-15 03:35 J -32091856.60 -32091856.35 -32091856.08 0.0147 0.0019
 Saturn -92576-08-24 14:23 J -32091725.13 -32091724.90 -32091724.67 0.0279 0.0109
 Uranus -92575-04-20 20:37 J -32091485.89 -32091485.64 -32091485.38 0.0147 0.0021
 Uranus -92574-04-25 23:44 J -32091115.74 -32091115.51 -32091115.25 0.0146 0.0058
 Uranus -92573-04-30 14:51 J -32090745.01 -32090744.88 -32090744.70 0.0146 0.0115
 Uranus -92572-05-05 20:37 J -32090374.67 -32090374.64 -32090374.57 0.0146 0.0143
 Jupiter -92570-10-01 04:47 J -32089496.52 -32089496.30 -32089496.07 0.0540 0.0102
 Jupiter -92564-03-17 00:42 J -32087502.63 -32087502.47 -32087502.30 0.0490 0.0348
 Saturn -92562-01-27 20:37 J -32086820.77 -32086820.64 -32086820.50 0.0279 0.0229
 Saturn -92561-02-09 06:42 J -32086443.47 -32086443.22 -32086442.97 0.0280 0.0014
 Saturn -92560-02-20 20:23 J -32086065.74 -32086065.65 -32086065.53 0.0281 0.0254
 Jupiter -92558-10-06 18:27 J -32085107.76 -32085107.73 -32085107.69 0.0542 0.0533
 Mars -92557-01-09 16:32 J -32085012.97 -32085012.81 -32085012.64 0.1644 0.0455
 Jupiter -92552-03-21 00:56 J -32083115.69 -32083115.46 -32083115.22 0.0489 0.0087
 Saturn -92548-08-04 20:08 J -32081517.76 -32081517.66 -32081517.53 0.0279 0.0250
 Saturn -92547-08-18 11:01 J -32081139.29 -32081139.04 -32081138.80 0.0279 0.0008
 Saturn -92546-08-31 22:32 J -32080760.68 -32080760.56 -32080760.43 0.0278 0.0237
 Jupiter -92540-03-25 14:08 J -32078728.12 -32078727.91 -32078727.70 0.0488 0.0204
 Uranus -92537-10-08 02:51 J -32077435.38 -32077435.38 -32077435.35 0.0131 0.0131
 Uranus -92536-10-11 23:30 J -32077066.67 -32077066.52 -32077066.33 0.0131 0.0095
 Uranus -92535-10-16 05:30 J -32076697.48 -32076697.27 -32076697.04 0.0131 0.0069
 Uranus -92534-10-20 02:23 J -32076328.62 -32076328.40 -32076328.16 0.0132 0.0040
 Uranus -92533-10-23 07:39 J -32075959.43 -32075959.18 -32075958.92 0.0132 0.0004

Saturn -92532-02-03 00:27 J -32075856.69 -32075856.48 -32075856.25 0.0280 0.0095
 Neptune -92532-03-01 02:08 J -32075830.46 -32075830.41 -32075830.30 0.0089 0.0084
 Uranus -92532-10-27 04:18 J -32075590.55 -32075590.32 -32075590.07 0.0132 0.0017
 Saturn -92531-02-15 21:35 J -32075478.80 -32075478.60 -32075478.40 0.0280 0.0149
 Neptune -92531-03-03 10:18 J -32075463.24 -32075463.07 -32075462.86 0.0089 0.0061
 Uranus -92531-10-31 08:37 J -32075221.36 -32075221.14 -32075220.90 0.0132 0.0058
 Neptune -92530-03-06 03:49 J -32075095.58 -32075095.34 -32075095.09 0.0089 0.0023
 Uranus -92530-11-04 05:30 J -32074852.46 -32074852.27 -32074852.06 0.0133 0.0075
 Neptune -92529-03-07 09:06 J -32074728.37 -32074728.12 -32074727.86 0.0089 0.0002
 Uranus -92529-11-07 09:20 J -32074483.22 -32074483.11 -32074482.97 0.0133 0.0116
 Neptune -92528-03-10 04:18 J -32074360.55 -32074360.32 -32074360.08 0.0089 0.0037
 Neptune -92527-03-12 09:49 J -32073993.27 -32073993.09 -32073992.90 0.0089 0.0060
 Saturn -92518-08-13 12:27 J -32070552.21 -32070551.98 -32070551.74 0.0279 0.0102
 Mars -92517-07-12 16:03 J -32070218.02 -32070217.83 -32070217.64 0.1882 0.0463
 Saturn -92517-08-25 20:51 J -32070173.85 -32070173.63 -32070173.40 0.0279 0.0140
 Mars -92510-01-03 17:59 J -32067851.89 -32067851.75 -32067851.60 0.1657 0.0926
 Saturn -92503-01-28 23:30 J -32065269.68 -32065269.52 -32065269.34 0.0279 0.0198
 Saturn -92502-02-10 07:39 J -32064892.42 -32064892.18 -32064891.93 0.0280 0.0043
 Saturn -92501-02-23 02:51 J -32064514.39 -32064514.38 -32064514.36 0.0281 0.0280
 Jupiter -92499-09-25 04:03 J -32063569.51 -32063569.33 -32063569.15 0.0538 0.0322
 Uranus -92495-03-31 16:47 J -32062285.84 -32062285.80 -32062285.73 0.0148 0.0144
 Uranus -92494-04-05 20:37 J -32061915.79 -32061915.64 -32061915.46 0.0147 0.0113
 Uranus -92493-04-10 12:27 J -32061545.22 -32061544.98 -32061544.74 0.0147 0.0055
 Uranus -92492-04-15 15:06 J -32061175.13 -32061174.87 -32061174.62 0.0147 0.0024
 Uranus -92491-04-21 07:54 J -32060804.42 -32060804.17 -32060803.91 0.0147 0.0023
 Uranus -92490-04-26 10:18 J -32060434.29 -32060434.07 -32060433.83 0.0146 0.0072
 Uranus -92489-05-01 02:08 J -32060063.58 -32060063.41 -32060063.22 0.0146 0.0102
 Saturn -92489-08-06 05:01 J -32059966.43 -32059966.29 -32059966.12 0.0279 0.0219
 Saturn -92488-08-19 23:01 J -32059587.78 -32059587.54 -32059587.30 0.0279 0.0026
 Saturn -92487-09-02 10:03 J -32059209.15 -32059209.08 -32059209.01 0.0278 0.0264

Jupiter -92487-09-30 17:59 J -32059180.98 -32059180.75 -32059180.52 0.0540 0.0052
 Jupiter -92481-03-15 22:18 J -32057187.70 -32057187.57 -32057187.43 0.0491 0.0394
 Mars -92478-01-11 10:18 J -32056156.17 -32056156.07 -32056155.97 0.1641 0.1343
 Jupiter -92475-10-05 14:37 J -32054793.00 -32054792.89 -32054792.77 0.0541 0.0471
 Saturn -92473-02-05 07:25 J -32054305.42 -32054305.19 -32054304.96 0.0280 0.0064
 Saturn -92472-02-17 00:13 J -32053927.69 -32053927.49 -32053927.30 0.0281 0.0174
 Jupiter -92469-03-20 14:08 J -32052800.13 -32052799.91 -32052799.68 0.0489 0.0129
 Saturn -92459-08-14 15:35 J -32049001.10 -32049000.85 -32049000.60 0.0279 0.0072
 Saturn -92458-08-27 23:30 J -32048622.72 -32048622.52 -32048622.32 0.0279 0.0168
 Jupiter -92457-03-24 17:44 J -32048412.98 -32048412.76 -32048412.53 0.0488 0.0176
 Uranus -92453-10-08 14:37 J -32046753.99 -32046753.89 -32046753.75 0.0131 0.0116
 Pluto -92452-05-19 01:39 J -32046531.51 -32046531.43 -32046531.29 0.0066 0.0061
 Uranus -92452-10-12 12:27 J -32046385.13 -32046384.98 -32046384.81 0.0131 0.0097
 Pluto -92451-05-20 21:20 J -32046164.83 -32046164.61 -32046164.34 0.0067 0.0033
 Uranus -92451-10-16 16:47 J -32046016.02 -32046015.80 -32046015.56 0.0131 0.0063
 Neptune -92450-09-09 22:03 J -32045687.68 -32045687.58 -32045687.43 0.0088 0.0078
 Uranus -92450-10-20 14:37 J -32045647.12 -32045646.89 -32045646.65 0.0132 0.0033
 Neptune -92449-09-11 03:49 J -32045320.54 -32045320.34 -32045320.11 0.0088 0.0046
 Uranus -92449-10-23 18:13 J -32045278.00 -32045277.74 -32045277.48 0.0132 0.0008
 Neptune -92448-09-13 19:54 J -32044952.93 -32044952.67 -32044952.41 0.0088 0.0018
 Uranus -92448-10-27 16:03 J -32044909.06 -32044908.83 -32044908.59 0.0132 0.0030
 Neptune -92447-09-16 05:01 J -32044585.53 -32044585.29 -32044585.04 0.0088 0.0014
 Uranus -92447-10-31 19:11 J -32044539.93 -32044539.70 -32044539.45 0.0132 0.0047
 Neptune -92446-09-18 16:03 J -32044218.07 -32044217.83 -32044217.59 0.0088 0.0041
 Uranus -92446-11-04 17:30 J -32044170.93 -32044170.77 -32044170.58 0.0133 0.0090
 Neptune -92445-09-20 05:15 J -32043850.41 -32043850.28 -32043850.13 0.0088 0.0073
 Uranus -92445-11-07 20:37 J -32043801.78 -32043801.64 -32043801.48 0.0133 0.0106
 Saturn -92444-01-29 21:49 J -32043718.77 -32043718.59 -32043718.38 0.0279 0.0167
 Saturn -92443-02-11 11:15 J -32043341.26 -32043341.03 -32043340.80 0.0280 0.0069
 Mars -92431-01-05 17:15 J -32038994.97 -32038994.78 -32038994.60 0.1654 0.0304

Saturn	-92430-08-08 16:32 J	-32038414.99	-32038414.81	-32038414.63	0.0279	0.0187
Saturn	-92429-08-21 09:35 J	-32038036.34	-32038036.10	-32038035.86	0.0278	0.0055
Jupiter	-92416-09-24 16:03 J	-32033253.99	-32033253.83	-32033253.67	0.0538	0.0378
Saturn	-92415-01-24 21:20 J	-32033131.65	-32033131.61	-32033131.54	0.0279	0.0270
Saturn	-92414-02-06 08:23 J	-32032754.39	-32032754.15	-32032753.90	0.0280	0.0037
Saturn	-92413-02-18 20:23 J	-32032376.82	-32032376.65	-32032376.47	0.0281	0.0196
Uranus	-92411-04-01 02:51 J	-32031604.40	-32031604.38	-32031604.31	0.0148	0.0146
Uranus	-92410-04-06 07:54 J	-32031234.35	-32031234.17	-32031233.96	0.0147	0.0094
Uranus	-92409-04-10 22:32 J	-32030863.78	-32030863.56	-32030863.31	0.0147	0.0066
Uranus	-92408-04-16 02:08 J	-32030493.67	-32030493.41	-32030493.16	0.0147	0.0012
Uranus	-92407-04-21 18:56 J	-32030122.97	-32030122.71	-32030122.45	0.0147	0.0027
Uranus	-92406-04-26 21:20 J	-32029752.83	-32029752.61	-32029752.36	0.0146	0.0065
Uranus	-92405-05-01 14:23 J	-32029382.04	-32029381.90	-32029381.75	0.0146	0.0119
Jupiter	-92404-09-29 07:11 J	-32028866.43	-32028866.20	-32028865.96	0.0539	0.0032
Saturn	-92400-08-15 17:30 J	-32027450.01	-32027449.77	-32027449.52	0.0280	0.0044
Mars	-92399-01-13 11:44 J	-32027299.05	-32027299.01	-32027298.96	0.1638	0.1587
Saturn	-92399-08-29 05:59 J	-32027071.42	-32027071.25	-32027071.08	0.0279	0.0198
Jupiter	-92398-03-16 16:18 J	-32026871.93	-32026871.82	-32026871.71	0.0491	0.0429
Jupiter	-92392-10-04 16:47 J	-32024477.95	-32024477.80	-32024477.65	0.0541	0.0398
Jupiter	-92386-03-20 18:42 J	-32022484.95	-32022484.72	-32022484.49	0.0490	0.0160
Saturn	-92385-01-31 23:30 J	-32022167.71	-32022167.52	-32022167.31	0.0279	0.0140
Saturn	-92384-02-12 17:01 J	-32021790.01	-32021789.79	-32021789.57	0.0280	0.0094
Jupiter	-92374-03-25 06:13 J	-32018097.45	-32018097.24	-32018097.02	0.0488	0.0155
Saturn	-92371-08-09 23:44 J	-32016863.71	-32016863.51	-32016863.30	0.0280	0.0159
Saturn	-92370-08-23 11:59 J	-32016485.24	-32016485.00	-32016484.75	0.0279	0.0085
Uranus	-92369-10-09 02:23 J	-32016072.47	-32016072.40	-32016072.29	0.0131	0.0123
Uranus	-92368-10-13 01:39 J	-32015703.60	-32015703.43	-32015703.23	0.0131	0.0085
Neptune	-92367-03-02 23:30 J	-32015562.66	-32015562.52	-32015562.36	0.0089	0.0070
Uranus	-92367-10-17 05:44 J	-32015334.49	-32015334.26	-32015334.03	0.0131	0.0061
Neptune	-92366-03-05 03:49 J	-32015195.55	-32015195.34	-32015195.10	0.0089	0.0045

Uranus -92366-10-21 04:32 J -32014965.54 -32014965.31 -32014965.07 0.0132 0.0031
 Pluto -92366-11-22 07:25 J -32014933.34 -32014933.19 -32014933.00 0.0078 0.0055
 Neptune -92365-03-06 22:18 J -32014827.82 -32014827.57 -32014827.30 0.0089 0.0011
 Uranus -92365-10-24 07:11 J -32014596.46 -32014596.20 -32014595.94 0.0132 0.0003
 Pluto -92365-11-23 10:32 J -32014566.12 -32014566.06 -32014565.97 0.0077 0.0074
 Neptune -92364-03-09 04:32 J -32014460.55 -32014460.31 -32014460.06 0.0089 0.0015
 Uranus -92364-10-28 05:59 J -32014227.48 -32014227.25 -32014227.01 0.0132 0.0023
 Neptune -92363-03-11 20:51 J -32014092.85 -32014092.63 -32014092.41 0.0089 0.0050
 Uranus -92363-11-01 07:39 J -32013858.40 -32013858.18 -32013857.94 0.0132 0.0063
 Neptune -92362-03-14 06:42 J -32013725.32 -32013725.22 -32013725.07 0.0089 0.0077
 Jupiter -92362-03-29 13:11 J -32013709.98 -32013709.95 -32013709.92 0.0487 0.0483
 Uranus -92362-11-05 06:56 J -32013489.40 -32013489.21 -32013489.02 0.0133 0.0079
 Uranus -92361-11-08 08:08 J -32013120.25 -32013120.16 -32013120.03 0.0133 0.0120
 Saturn -92356-01-25 21:06 J -32011580.74 -32011580.62 -32011580.50 0.0279 0.0241
 Saturn -92355-02-07 03:35 J -32011203.60 -32011203.35 -32011203.11 0.0280 0.0012
 Saturn -92354-02-19 18:27 J -32010825.87 -32010825.73 -32010825.57 0.0280 0.0220
 Mars -92352-01-08 00:13 J -32010137.68 -32010137.49 -32010137.30 0.1650 0.0486
 Saturn -92342-08-04 03:06 J -32006277.45 -32006277.37 -32006277.27 0.0281 0.0261
 Saturn -92341-08-16 23:30 J -32005898.76 -32005898.52 -32005898.28 0.0280 0.0016
 Saturn -92340-08-30 14:08 J -32005520.05 -32005519.91 -32005519.77 0.0279 0.0226
 Jupiter -92333-09-23 06:13 J -32002939.36 -32002939.24 -32002939.12 0.0537 0.0455
 Uranus -92327-04-01 14:37 J -32000922.97 -32000922.89 -32000922.76 0.0148 0.0135
 Saturn -92326-02-02 04:47 J -32000616.51 -32000616.30 -32000616.08 0.0279 0.0113
 Uranus -92326-04-06 21:20 J -32000552.78 -32000552.61 -32000552.43 0.0147 0.0103
 Saturn -92325-02-14 19:39 J -32000238.89 -32000238.68 -32000238.45 0.0280 0.0119
 Uranus -92325-04-11 11:15 J -32000182.28 -32000182.03 -32000181.78 0.0147 0.0047
 Uranus -92324-04-16 14:51 J -31999812.13 -31999811.88 -31999811.63 0.0147 0.0017
 Uranus -92323-04-22 07:11 J -31999441.45 -31999441.20 -31999440.94 0.0147 0.0030
 Uranus -92322-04-27 09:20 J -31999071.32 -31999071.11 -31999070.88 0.0146 0.0078
 Uranus -92321-05-02 01:54 J -31998700.57 -31998700.42 -31998700.22 0.0146 0.0107

Jupiter -92321-09-28 18:27 J -31998550.96 -31998550.73 -31998550.51 0.0539 0.0082
 Jupiter -92315-03-15 20:51 J -31996556.70 -31996556.63 -31996556.54 0.0491 0.0462
 Mars -92312-07-07 07:39 J -31995347.31 -31995347.18 -31995347.05 0.1867 0.1516
 Saturn -92312-08-11 01:25 J -31995312.67 -31995312.44 -31995312.21 0.0280 0.0131
 Saturn -92311-08-24 11:01 J -31994934.27 -31994934.04 -31994933.80 0.0279 0.0114
 Jupiter -92309-10-03 22:47 J -31994162.72 -31994162.55 -31994162.37 0.0541 0.0364
 Mars -92305-01-03 08:51 J -31992976.29 -31992976.13 -31992975.97 0.1664 0.0932
 Jupiter -92303-03-20 06:42 J -31992169.43 -31992169.22 -31992169.01 0.0490 0.0196
 Saturn -92297-01-27 15:35 J -31990030.00 -31990029.85 -31990029.69 0.0279 0.0215
 Saturn -92296-02-08 00:56 J -31989652.70 -31989652.46 -31989652.23 0.0279 0.0013
 Saturn -92295-02-20 20:51 J -31989274.74 -31989274.63 -31989274.50 0.0280 0.0239
 Jupiter -92291-03-24 15:49 J -31987782.07 -31987781.84 -31987781.60 0.0489 0.0128
 Neptune -92285-09-10 13:11 J -31985420.13 -31985419.95 -31985419.73 0.0088 0.0059
 Uranus -92285-10-09 14:51 J -31985391.00 -31985390.88 -31985390.71 0.0131 0.0108
 Neptune -92284-09-12 23:59 J -31985052.71 -31985052.50 -31985052.26 0.0088 0.0038
 Uranus -92284-10-13 15:06 J -31985022.03 -31985021.87 -31985021.67 0.0131 0.0089
 Saturn -92283-08-05 07:54 J -31984726.30 -31984726.17 -31984726.04 0.0281 0.0236
 Neptune -92283-09-15 09:49 J -31984685.36 -31984685.09 -31984684.82 0.0088 0.0001
 Uranus -92283-10-17 17:15 J -31984653.01 -31984652.78 -31984652.54 0.0131 0.0054
 Saturn -92282-08-19 05:44 J -31984347.50 -31984347.26 -31984347.01 0.0280 0.0011
 Neptune -92282-09-18 01:11 J -31984317.69 -31984317.45 -31984317.20 0.0088 0.0022
 Uranus -92282-10-21 17:15 J -31984284.02 -31984283.78 -31984283.54 0.0132 0.0026
 Saturn -92281-08-31 16:47 J -31983968.90 -31983968.80 -31983968.68 0.0279 0.0251
 Neptune -92281-09-19 06:13 J -31983950.41 -31983950.24 -31983950.04 0.0088 0.0061
 Uranus -92281-10-24 18:27 J -31983914.99 -31983914.73 -31983914.47 0.0132 0.0002
 Neptune -92280-09-21 23:59 J -31983582.58 -31983582.50 -31983582.38 0.0088 0.0081
 Uranus -92280-10-28 18:27 J -31983545.96 -31983545.73 -31983545.49 0.0132 0.0035
 Jupiter -92279-03-28 21:20 J -31983394.68 -31983394.61 -31983394.53 0.0488 0.0462
 Uranus -92279-11-01 19:11 J -31983176.92 -31983176.70 -31983176.45 0.0132 0.0052
 Uranus -92278-11-05 19:54 J -31982807.83 -31982807.67 -31982807.50 0.0133 0.0094

Uranus -92277-11-08 20:08 J -31982438.78 -31982438.66 -31982438.49 0.0133 0.0110
 Mars -92273-01-11 06:13 J -31981280.38 -31981280.24 -31981280.09 0.1647 0.0968
 Saturn -92267-02-03 06:56 J -31979065.44 -31979065.21 -31979064.98 0.0278 0.0087
 Saturn -92266-02-15 16:32 J -31978688.03 -31978687.81 -31978687.59 0.0279 0.0139
 Saturn -92253-08-11 23:44 J -31973761.74 -31973761.51 -31973761.27 0.0280 0.0106
 Saturn -92252-08-25 13:54 J -31973383.12 -31973382.92 -31973382.70 0.0279 0.0140
 Jupiter -92250-09-23 21:06 J -31972623.70 -31972623.62 -31972623.54 0.0537 0.0499
 Uranus -92243-04-02 01:39 J -31970241.52 -31970241.43 -31970241.30 0.0148 0.0135
 Uranus -92242-04-07 09:20 J -31969871.30 -31969871.11 -31969870.90 0.0148 0.0086
 Uranus -92241-04-11 22:03 J -31969500.82 -31969500.58 -31969500.33 0.0147 0.0058
 Uranus -92240-04-17 02:51 J -31969130.63 -31969130.38 -31969130.12 0.0147 0.0004
 Uranus -92239-04-22 18:56 J -31968759.96 -31968759.71 -31968759.45 0.0147 0.0033
 Saturn -92238-01-28 14:23 J -31968479.07 -31968478.90 -31968478.73 0.0278 0.0191
 Uranus -92238-04-27 21:49 J -31968389.81 -31968389.59 -31968389.36 0.0147 0.0071
 Jupiter -92238-09-28 22:32 J -31968235.79 -31968235.56 -31968235.32 0.0539 0.0122
 Saturn -92237-02-10 04:18 J -31968101.55 -31968101.32 -31968101.08 0.0279 0.0034
 Uranus -92237-05-02 14:51 J -31968019.00 -31968018.88 -31968018.73 0.0146 0.0124
 Saturn -92236-02-21 23:44 J -31967723.59 -31967723.51 -31967723.41 0.0280 0.0259
 Mars -92233-07-11 20:08 J -31966487.89 -31966487.66 -31966487.44 0.1875 0.0315
 Mars -92226-01-05 10:18 J -31964119.24 -31964119.07 -31964118.90 0.1661 0.0408
 Jupiter -92226-10-03 22:18 J -31963847.75 -31963847.57 -31963847.38 0.0539 0.0305
 Saturn -92224-08-06 13:39 J -31963175.09 -31963174.93 -31963174.77 0.0281 0.0213
 Saturn -92223-08-20 07:39 J -31962796.43 -31962796.18 -31962795.92 0.0280 0.0034
 Saturn -92222-09-02 14:08 J -31962417.93 -31962417.91 -31962417.87 0.0279 0.0277
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 Saturn -92208-02-04 03:49 J -31957514.58 -31957514.34 -31957514.09 0.0278 0.0065
 Jupiter -92208-03-23 22:47 J -31957466.77 -31957466.55 -31957466.32 0.0489 0.0107
 Saturn -92207-02-16 13:25 J -31957137.13 -31957136.94 -31957136.73 0.0279 0.0159
 Neptune -92203-03-01 23:44 J -31955662.56 -31955662.51 -31955662.40 0.0089 0.0084
 Pluto -92203-05-22 01:25 J -31955581.69 -31955581.44 -31955581.18 0.0067 0.0002

Neptune -92202-03-04 17:44 J -31955294.93 -31955294.76 -31955294.56 0.0089 0.0062
 Uranus -92202-10-07 01:54 J -31955078.44 -31955078.42 -31955078.37 0.0131 0.0129
 Neptune -92201-03-06 00:27 J -31954927.72 -31954927.48 -31954927.24 0.0089 0.0024
 Uranus -92201-10-10 04:03 J -31954709.45 -31954709.33 -31954709.20 0.0131 0.0113
 Neptune -92200-03-08 14:37 J -31954560.16 -31954559.89 -31954559.63 0.0089 0.0002
 Uranus -92200-10-14 05:15 J -31954340.46 -31954340.28 -31954340.07 0.0131 0.0076
 Neptune -92199-03-11 01:11 J -31954192.66 -31954192.45 -31954192.20 0.0089 0.0036
 Uranus -92199-10-18 06:13 J -31953971.46 -31953971.24 -31953970.99 0.0131 0.0054
 Neptune -92198-03-13 11:30 J -31953825.22 -31953825.02 -31953824.82 0.0089 0.0057
 Uranus -92198-10-22 07:25 J -31953602.42 -31953602.19 -31953601.95 0.0132 0.0023
 Uranus -92197-10-25 07:25 J -31953233.45 -31953233.19 -31953232.93 0.0132 0.0008
 Jupiter -92196-03-28 13:25 J -31953079.04 -31953078.94 -31953078.83 0.0488 0.0435
 Uranus -92196-10-29 08:23 J -31952864.38 -31952864.15 -31952863.91 0.0132 0.0028
 Uranus -92195-11-02 07:11 J -31952495.40 -31952495.20 -31952494.96 0.0132 0.0068
 Saturn -92194-08-14 02:37 J -31952210.61 -31952210.39 -31952210.15 0.0280 0.0081
 Uranus -92194-11-06 08:51 J -31952126.30 -31952126.13 -31952125.93 0.0133 0.0084
 Saturn -92193-08-26 20:37 J -31951831.82 -31951831.64 -31951831.44 0.0279 0.0167
 Uranus -92193-11-09 08:23 J -31951757.23 -31951757.15 -31951757.05 0.0133 0.0124
 Saturn -92179-01-29 18:27 J -31946927.90 -31946927.73 -31946927.54 0.0278 0.0169
 Saturn -92178-02-11 08:08 J -31946550.39 -31946550.16 -31946549.92 0.0279 0.0056
 Saturn -92177-02-23 22:18 J -31946172.59 -31946172.57 -31946172.51 0.0280 0.0276
 Saturn -92165-08-07 14:08 J -31941624.10 -31941623.91 -31941623.72 0.0281 0.0188
 Saturn -92164-08-21 04:32 J -31941245.55 -31941245.31 -31941245.05 0.0280 0.0061
 Uranus -92159-04-02 15:06 J -31939559.99 -31939559.87 -31939559.71 0.0148 0.0125
 Uranus -92158-04-07 23:59 J -31939189.69 -31939189.50 -31939189.30 0.0148 0.0093
 Uranus -92157-04-12 11:15 J -31938819.28 -31938819.03 -31938818.76 0.0147 0.0039
 Uranus -92156-04-17 16:47 J -31938449.05 -31938448.80 -31938448.55 0.0147 0.0010
 Uranus -92155-04-23 07:39 J -31938078.43 -31938078.18 -31938077.91 0.0147 0.0037
 Jupiter -92155-09-27 22:18 J -31937920.77 -31937920.57 -31937920.36 0.0538 0.0190
 Uranus -92154-04-28 10:47 J -31937708.26 -31937708.05 -31937707.83 0.0147 0.0083

Uranus -92153-05-03 03:20 J -31937337.52 -31937337.36 -31937337.18 0.0146 0.0112
 Saturn -92150-01-24 23:44 J -31936340.58 -31936340.51 -31936340.42 0.0277 0.0262
 Saturn -92149-02-06 03:06 J -31935963.60 -31935963.37 -31935963.13 0.0278 0.0042
 Saturn -92148-02-17 18:13 J -31935585.91 -31935585.74 -31935585.55 0.0279 0.0180
 Mars -92147-01-07 05:15 J -31935262.45 -31935262.28 -31935262.11 0.1657 0.0240
 Jupiter -92143-10-03 05:44 J -31933532.47 -31933532.26 -31933532.06 0.0540 0.0261
 Jupiter -92137-03-19 00:27 J -31931538.68 -31931538.48 -31931538.29 0.0491 0.0251
 Saturn -92135-08-15 10:47 J -31930659.29 -31930659.05 -31930658.81 0.0280 0.0054
 Saturn -92134-08-29 02:23 J -31930280.57 -31930280.40 -31930280.21 0.0279 0.0190
 Jupiter -92125-03-23 13:54 J -31927151.16 -31927150.92 -31927150.68 0.0489 0.0081
 Neptune -92121-09-09 17:44 J -31925519.85 -31925519.76 -31925519.62 0.0088 0.0079
 Saturn -92120-01-30 23:59 J -31925376.70 -31925376.50 -31925376.29 0.0278 0.0142
 Neptune -92120-09-12 02:23 J -31925152.60 -31925152.40 -31925152.16 0.0088 0.0049
 Saturn -92119-02-12 07:39 J -31924999.41 -31924999.18 -31924998.93 0.0279 0.0076
 Neptune -92119-09-14 19:39 J -31924784.93 -31924784.68 -31924784.43 0.0088 0.0020
 Neptune -92118-09-17 00:27 J -31924417.74 -31924417.48 -31924417.22 0.0088 0.0009
 Neptune -92117-09-18 18:42 J -31924049.95 -31924049.72 -31924049.48 0.0088 0.0039
 Uranus -92117-10-10 16:47 J -31924027.96 -31924027.80 -31924027.61 0.0131 0.0097
 Pluto -92117-11-24 12:13 J -31923983.19 -31923982.99 -31923982.77 0.0077 0.0039
 Neptune -92116-09-20 22:32 J -31923682.69 -31923682.56 -31923682.38 0.0088 0.0070
 Uranus -92116-10-14 18:56 J -31923658.88 -31923658.71 -31923658.50 0.0131 0.0081
 Uranus -92115-10-18 18:27 J -31923289.97 -31923289.73 -31923289.48 0.0131 0.0045
 Uranus -92114-10-22 20:37 J -31922920.88 -31922920.64 -31922920.40 0.0132 0.0019
 Jupiter -92113-03-27 14:51 J -31922764.01 -31922763.88 -31922763.74 0.0488 0.0399
 Uranus -92113-10-25 19:25 J -31922551.94 -31922551.69 -31922551.43 0.0132 0.0006
 Uranus -92112-10-29 22:03 J -31922182.81 -31922182.58 -31922182.35 0.0132 0.0040
 Uranus -92111-11-02 20:08 J -31921813.88 -31921813.66 -31921813.42 0.0132 0.0058
 Uranus -92110-11-06 23:01 J -31921444.69 -31921444.54 -31921444.37 0.0132 0.0099
 Uranus -92109-11-09 21:20 J -31921075.74 -31921075.61 -31921075.48 0.0133 0.0113
 Saturn -92106-08-09 11:30 J -31920073.21 -31920073.02 -31920072.79 0.0281 0.0163

Saturn -92105-08-22 04:47 J -31919694.53 -31919694.30 -31919694.06 0.0280 0.0085
 Mars -92100-01-01 04:18 J -31918101.41 -31918101.32 -31918101.23 0.1673 0.1414
 Saturn -92091-01-25 23:59 J -31914789.63 -31914789.50 -31914789.37 0.0277 0.0235
 Saturn -92090-02-07 09:06 J -31914412.35 -31914412.12 -31914411.88 0.0278 0.0019
 Saturn -92089-02-20 02:51 J -31914034.54 -31914034.38 -31914034.21 0.0279 0.0199
 Saturn -92077-08-02 19:39 J -31909486.74 -31909486.68 -31909486.61 0.0281 0.0271
 Saturn -92076-08-16 17:30 J -31909108.02 -31909107.77 -31909107.51 0.0280 0.0026
 Uranus -92075-04-03 01:54 J -31908878.56 -31908878.42 -31908878.27 0.0148 0.0123
 Saturn -92075-08-30 04:18 J -31908729.47 -31908729.32 -31908729.15 0.0279 0.0217
 Uranus -92074-04-08 11:44 J -31908508.21 -31908508.01 -31908507.78 0.0148 0.0077
 Uranus -92073-04-12 21:49 J -31908137.83 -31908137.59 -31908137.32 0.0148 0.0050
 Uranus -92072-04-18 05:01 J -31907767.54 -31907767.29 -31907767.03 0.0147 0.0005
 Jupiter -92072-09-27 05:30 J -31907605.48 -31907605.27 -31907605.05 0.0538 0.0232
 Uranus -92071-04-23 19:25 J -31907396.94 -31907396.69 -31907396.42 0.0147 0.0040
 Uranus -92070-04-28 23:15 J -31907026.73 -31907026.53 -31907026.30 0.0147 0.0078
 Uranus -92069-05-03 15:49 J -31906655.94 -31906655.84 -31906655.70 0.0146 0.0130
 Mars -92068-01-09 01:11 J -31906405.59 -31906405.45 -31906405.30 0.1654 0.0984
 Saturn -92061-02-02 03:20 J -31903825.58 -31903825.36 -31903825.13 0.0278 0.0116
 Saturn -92060-02-13 08:23 J -31903448.37 -31903448.15 -31903447.91 0.0279 0.0098
 Jupiter -92060-10-02 05:59 J -31903217.45 -31903217.25 -31903217.04 0.0539 0.0222
 Jupiter -92054-03-19 14:23 J -31901223.09 -31901222.90 -31901222.71 0.0491 0.0283
 Saturn -92047-08-10 14:51 J -31898522.09 -31898521.88 -31898521.66 0.0281 0.0135
 Saturn -92046-08-24 11:59 J -31898143.22 -31898143.00 -31898142.78 0.0280 0.0112
 Jupiter -92042-03-23 13:39 J -31896836.16 -31896835.93 -31896835.70 0.0490 0.0047
 Neptune -92038-03-03 19:25 J -31895394.82 -31895394.69 -31895394.54 0.0089 0.0073
 Neptune -92037-03-05 08:08 J -31895027.37 -31895027.16 -31895026.92 0.0089 0.0046
 Neptune -92036-03-07 20:51 J -31894659.87 -31894659.63 -31894659.37 0.0089 0.0014
 Neptune -92035-03-10 04:47 J -31894292.55 -31894292.30 -31894292.03 0.0089 0.0014
 Neptune -92034-03-12 21:35 J -31893924.80 -31893924.60 -31893924.37 0.0089 0.0047
 Uranus -92034-10-08 06:56 J -31893715.29 -31893715.21 -31893715.10 0.0131 0.0119

Neptune -92033-03-14 02:51 J -31893557.51 -31893557.38 -31893557.23 0.0089 0.0074
 Uranus -92033-10-11 06:13 J -31893346.37 -31893346.24 -31893346.06 0.0131 0.0105
 Saturn -92032-01-27 06:42 J -31893238.37 -31893238.22 -31893238.06 0.0277 0.0208
 Uranus -92032-10-15 10:03 J -31892977.28 -31892977.08 -31892976.86 0.0131 0.0066
 Saturn -92031-02-08 18:56 J -31892860.95 -31892860.71 -31892860.48 0.0278 0.0008
 Uranus -92031-10-19 08:23 J -31892608.38 -31892608.15 -31892607.90 0.0131 0.0046
 Saturn -92030-02-21 08:37 J -31892483.29 -31892483.14 -31892482.99 0.0279 0.0221
 Jupiter -92030-03-28 05:01 J -31892448.45 -31892448.29 -31892448.14 0.0489 0.0364
 Uranus -92030-10-23 11:30 J -31892239.25 -31892239.02 -31892238.77 0.0131 0.0016
 Uranus -92029-10-26 09:06 J -31891870.38 -31891870.12 -31891869.86 0.0132 0.0014
 Mars -92028-07-06 14:51 J -31891617.00 -31891616.88 -31891616.75 0.1859 0.1384
 Uranus -92028-10-30 12:13 J -31891501.22 -31891500.99 -31891500.75 0.0132 0.0034
 Uranus -92027-11-03 09:06 J -31891132.33 -31891132.12 -31891131.90 0.0132 0.0072
 Uranus -92026-11-07 12:42 J -31890763.13 -31890762.97 -31890762.78 0.0132 0.0088
 Uranus -92025-11-10 09:49 J -31890394.13 -31890394.09 -31890394.01 0.0133 0.0129
 Mars -92021-01-04 05:30 J -31889244.44 -31889244.27 -31889244.09 0.1669 0.0515
 Saturn -92018-08-05 03:06 J -31887935.50 -31887935.37 -31887935.24 0.0281 0.0241
 Saturn -92017-08-17 20:23 J -31887556.91 -31887556.65 -31887556.39 0.0280 0.0005
 Saturn -92016-08-31 06:56 J -31887178.33 -31887178.21 -31887178.09 0.0279 0.0245
 Saturn -92002-02-03 05:30 J -31882274.49 -31882274.27 -31882274.03 0.0278 0.0089
 Saturn -92001-02-15 15:49 J -31881897.04 -31881896.84 -31881896.62 0.0279 0.0125

92ND MILLENNIUM BCE

This is a list of transits of Moon in the 92nd millennium BCE.

FROM MAX- C START MAX END SUNRAD DEPTH S

TRANSIT

TIME

Uranus	-91991-04-03 14:51 J	-31878197.03	-31878196.88	-31878196.70	0.0148	0.0115
Uranus	-91990-04-09 02:08 J	-31877826.61	-31877826.41	-31877826.20	0.0148	0.0083
Mars	-91989-01-12 03:49 J	-31877548.45	-31877548.34	-31877548.22	0.1651	0.1326
Uranus	-91989-04-13 11:01 J	-31877456.30	-31877456.04	-31877455.77	0.0148	0.0030
Jupiter	-91989-09-26 01:54 J	-31877290.60	-31877290.42	-31877290.22	0.0536	0.0288
Uranus	-91988-04-18 18:56 J	-31877085.96	-31877085.71	-31877085.46	0.0147	0.0002
Saturn	-91988-08-12 01:11 J	-31876970.68	-31876970.45	-31876970.23	0.0281	0.0105
Uranus	-91987-04-24 07:54 J	-31876715.41	-31876715.17	-31876714.90	0.0147	0.0045
Saturn	-91987-08-25 21:35 J	-31876591.80	-31876591.60	-31876591.38	0.0280	0.0140
Uranus	-91986-04-29 12:27 J	-31876345.17	-31876344.98	-31876344.76	0.0147	0.0090
Uranus	-91985-05-04 04:47 J	-31875974.45	-31875974.30	-31875974.14	0.0146	0.0117
Jupiter	-91977-10-01 11:15 J	-31872902.25	-31872902.03	-31872901.81	0.0538	0.0157
Saturn	-91973-01-29 18:27 J	-31871686.90	-31871686.73	-31871686.54	0.0277	0.0180
Saturn	-91972-02-10 03:20 J	-31871309.60	-31871309.36	-31871309.11	0.0278	0.0036
Saturn	-91971-02-22 12:27 J	-31870932.09	-31870931.98	-31870931.85	0.0279	0.0244
Jupiter	-91971-03-18 11:44 J	-31870908.18	-31870908.01	-31870907.83	0.0492	0.0323
Jupiter	-91959-03-23 04:03 J	-31866520.56	-31866520.33	-31866520.10	0.0490	0.0022
Saturn	-91959-08-06 07:25 J	-31866384.35	-31866384.19	-31866384.00	0.0281	0.0209
Saturn	-91958-08-20 00:56 J	-31866005.71	-31866005.46	-31866005.21	0.0280	0.0037
Saturn	-91957-09-01 15:20 J	-31865626.90	-31865626.86	-31865626.81	0.0279	0.0274
Neptune	-91956-09-11 11:30 J	-31865252.20	-31865252.02	-31865251.83	0.0088	0.0062
Pluto	-91955-05-23 00:27 J	-31864998.74	-31864998.48	-31864998.22	0.0067	0.0024
Neptune	-91955-09-13 16:03 J	-31864885.04	-31864884.83	-31864884.59	0.0088	0.0041
Neptune	-91954-09-16 11:01 J	-31864517.30	-31864517.04	-31864516.78	0.0088	0.0002
Neptune	-91953-09-17 16:47 J	-31864150.04	-31864149.80	-31864149.55	0.0088	0.0018
Neptune	-91952-09-20 08:23 J	-31863782.34	-31863782.15	-31863781.93	0.0088	0.0057
Neptune	-91951-09-22 17:15 J	-31863414.88	-31863414.78	-31863414.64	0.0088	0.0077
Uranus	-91950-10-08 21:35 J	-31863033.64	-31863033.60	-31863033.52	0.0131	0.0127

Mars -91949-07-09 23:59 J -31862758.71 -31862758.50 -31862758.29 0.1866 0.0240
 Uranus -91949-10-11 19:25 J -31862664.86 -31862664.69 -31862664.47 0.0131 0.0087
 Uranus -91948-10-16 00:13 J -31862295.69 -31862295.49 -31862295.28 0.0131 0.0071
 Jupiter -91947-03-27 05:44 J -31862133.44 -31862133.26 -31862133.07 0.0489 0.0318
 Uranus -91947-10-19 21:06 J -31861926.86 -31861926.62 -31861926.37 0.0131 0.0036
 Uranus -91946-10-24 01:25 J -31861557.67 -31861557.44 -31861557.19 0.0131 0.0013
 Uranus -91945-10-26 22:18 J -31861188.82 -31861188.57 -31861188.31 0.0132 0.0013
 Saturn -91944-01-23 08:37 J -31861100.18 -31861100.14 -31861100.09 0.0277 0.0272
 Uranus -91944-10-31 02:37 J -31860819.61 -31860819.39 -31860819.16 0.0132 0.0047
 Saturn -91943-02-04 13:25 J -31860723.16 -31860722.94 -31860722.70 0.0278 0.0061
 Uranus -91943-11-03 22:47 J -31860450.76 -31860450.55 -31860450.31 0.0132 0.0064
 Mars -91942-01-06 13:54 J -31860387.12 -31860386.92 -31860386.73 0.1665 0.0078
 Saturn -91942-02-17 04:32 J -31860345.49 -31860345.31 -31860345.10 0.0279 0.0151
 Uranus -91942-11-08 03:35 J -31860081.48 -31860081.35 -31860081.19 0.0132 0.0105
 Uranus -91941-11-10 23:44 J -31859712.61 -31859712.51 -31859712.38 0.0133 0.0118
 Saturn -91929-08-13 12:27 J -31855419.22 -31855418.98 -31855418.74 0.0281 0.0074
 Saturn -91928-08-27 04:18 J -31855040.51 -31855040.32 -31855040.11 0.0280 0.0170
 Saturn -91914-01-31 04:03 J -31850135.54 -31850135.33 -31850135.13 0.0277 0.0150
 Saturn -91913-02-12 08:37 J -31849758.38 -31849758.14 -31849757.90 0.0278 0.0062
 Saturn -91912-02-23 20:23 J -31849380.70 -31849380.65 -31849380.59 0.0279 0.0271
 Uranus -91907-04-04 00:56 J -31847515.62 -31847515.46 -31847515.28 0.0148 0.0112
 Uranus -91906-04-09 13:25 J -31847145.15 -31847144.94 -31847144.71 0.0148 0.0068
 Jupiter -91906-09-26 04:47 J -31846975.46 -31846975.30 -31846975.12 0.0536 0.0360
 Uranus -91905-04-13 21:06 J -31846774.87 -31846774.62 -31846774.36 0.0148 0.0041
 Uranus -91904-04-19 06:42 J -31846404.46 -31846404.22 -31846403.97 0.0147 0.0013
 Uranus -91903-04-24 18:56 J -31846033.95 -31846033.71 -31846033.45 0.0147 0.0047
 Uranus -91902-04-30 00:42 J -31845663.66 -31845663.47 -31845663.25 0.0147 0.0085
 Uranus -91901-05-04 16:18 J -31845292.90 -31845292.82 -31845292.70 0.0146 0.0135
 Saturn -91900-08-07 16:18 J -31844833.01 -31844832.82 -31844832.62 0.0281 0.0177
 Saturn -91899-08-21 13:39 J -31844454.17 -31844453.93 -31844453.70 0.0280 0.0069

Mars -91896-12-31 18:13 J -31843225.86 -31843225.74 -31843225.61 0.1681 0.1229
 Jupiter -91894-10-01 02:23 J -31842587.63 -31842587.40 -31842587.17 0.0538 0.0086
 Jupiter -91888-03-18 01:11 J -31840592.61 -31840592.45 -31840592.29 0.0492 0.0354
 Saturn -91885-01-25 17:44 J -31839548.86 -31839548.76 -31839548.64 0.0277 0.0243
 Saturn -91884-02-06 03:49 J -31839171.57 -31839171.34 -31839171.11 0.0278 0.0033
 Saturn -91883-02-18 17:30 J -31838793.94 -31838793.77 -31838793.57 0.0279 0.0180
 Jupiter -91882-10-06 14:51 J -31838198.97 -31838198.88 -31838198.80 0.0540 0.0497
 Jupiter -91876-03-22 03:20 J -31836205.60 -31836205.36 -31836205.12 0.0491 0.0019
 Neptune -91874-03-03 01:54 J -31835494.46 -31835494.42 -31835494.34 0.0089 0.0086
 Neptune -91873-03-04 15:49 J -31835127.01 -31835126.84 -31835126.67 0.0089 0.0065
 Neptune -91872-03-06 22:03 J -31834759.81 -31834759.58 -31834759.32 0.0089 0.0027
 Neptune -91871-03-09 16:03 J -31834392.08 -31834391.83 -31834391.57 0.0089 0.0006
 Neptune -91870-03-11 20:23 J -31834024.87 -31834024.65 -31834024.40 0.0089 0.0033
 Saturn -91870-08-15 20:37 J -31833867.90 -31833867.64 -31833867.38 0.0281 0.0043
 Neptune -91869-03-13 14:51 J -31833657.07 -31833656.88 -31833656.65 0.0089 0.0054
 Saturn -91869-08-28 08:51 J -31833489.29 -31833489.13 -31833488.94 0.0280 0.0201
 Pluto -91869-11-25 12:42 J -31833400.22 -31833399.97 -31833399.71 0.0077 0.0005
 Uranus -91866-10-09 12:56 J -31832352.09 -31832351.96 -31832351.82 0.0131 0.0108
 Uranus -91865-10-12 10:18 J -31831983.24 -31831983.07 -31831982.88 0.0131 0.0094
 Jupiter -91864-03-26 11:44 J -31831818.20 -31831818.01 -31831817.82 0.0490 0.0270
 Uranus -91864-10-16 15:35 J -31831614.06 -31831613.85 -31831613.62 0.0131 0.0056
 Mars -91863-01-08 20:08 J -31831529.83 -31831529.66 -31831529.50 0.1661 0.0708
 Uranus -91863-10-20 11:44 J -31831245.25 -31831245.01 -31831244.75 0.0131 0.0038
 Uranus -91862-10-24 17:01 J -31830876.03 -31830875.79 -31830875.55 0.0131 0.0007
 Uranus -91861-10-27 12:27 J -31830507.23 -31830506.98 -31830506.72 0.0132 0.0021
 Uranus -91860-10-31 17:30 J -31830137.99 -31830137.77 -31830137.53 0.0132 0.0042
 Uranus -91859-11-04 12:42 J -31829769.16 -31829768.97 -31829768.75 0.0132 0.0079
 Uranus -91858-11-08 18:13 J -31829399.88 -31829399.74 -31829399.55 0.0132 0.0095
 Saturn -91855-02-01 08:51 J -31828584.35 -31828584.13 -31828583.91 0.0278 0.0122
 Saturn -91854-02-13 15:20 J -31828207.08 -31828206.86 -31828206.62 0.0278 0.0091

Saturn -91841-08-09 07:11 J -31823281.40 -31823281.20 -31823280.99 0.0281 0.0144
 Saturn -91840-08-23 05:59 J -31822902.47 -31822902.25 -31822902.02 0.0280 0.0102
 Saturn -91826-01-27 07:11 J -31817997.33 -31817997.20 -31817997.05 0.0277 0.0216
 Saturn -91825-02-08 17:01 J -31817620.03 -31817619.79 -31817619.55 0.0278 0.0005
 Saturn -91824-02-20 02:23 J -31817242.57 -31817242.40 -31817242.23 0.0279 0.0205
 Uranus -91824-03-30 12:27 J -31817204.05 -31817203.98 -31817203.90 0.0148 0.0140
 Uranus -91823-04-04 14:37 J -31816834.06 -31816833.89 -31816833.69 0.0148 0.0106
 Jupiter -91823-09-24 23:30 J -31816660.67 -31816660.52 -31816660.38 0.0536 0.0417
 Uranus -91822-04-10 03:49 J -31816463.55 -31816463.34 -31816463.12 0.0148 0.0074
 Uranus -91821-04-14 10:03 J -31816093.34 -31816093.08 -31816092.81 0.0148 0.0022
 Uranus -91820-04-19 20:51 J -31815722.88 -31815722.63 -31815722.38 0.0147 0.0006
 Uranus -91819-04-25 07:39 J -31815352.43 -31815352.18 -31815351.93 0.0147 0.0053
 Uranus -91818-04-30 14:23 J -31814982.07 -31814981.90 -31814981.69 0.0147 0.0096
 Uranus -91817-05-05 05:15 J -31814611.41 -31814611.28 -31814611.12 0.0146 0.0123
 Mars -91816-01-02 20:37 J -31814368.78 -31814368.64 -31814368.49 0.1677 0.0875
 Saturn -91812-08-03 09:49 J -31812695.18 -31812695.09 -31812694.96 0.0281 0.0255
 Saturn -91811-08-17 04:18 J -31812316.57 -31812316.32 -31812316.06 0.0281 0.0010
 Jupiter -91811-09-30 11:01 J -31812272.26 -31812272.04 -31812271.81 0.0537 0.0034
 Saturn -91810-08-30 19:11 J -31811937.83 -31811937.70 -31811937.55 0.0280 0.0231
 Jupiter -91805-03-16 21:06 J -31810277.76 -31810277.62 -31810277.47 0.0493 0.0398
 Jupiter -91799-10-05 08:51 J -31807884.28 -31807884.13 -31807883.98 0.0539 0.0417
 Saturn -91796-02-02 15:06 J -31807033.09 -31807032.87 -31807032.64 0.0278 0.0094
 Saturn -91795-02-15 04:03 J -31806655.54 -31806655.33 -31806655.12 0.0279 0.0117
 Jupiter -91793-03-21 08:08 J -31805890.38 -31805890.16 -31805889.93 0.0491 0.0064
 Neptune -91792-09-10 07:25 J -31805352.27 -31805352.19 -31805352.07 0.0088 0.0082
 Neptune -91791-09-13 01:25 J -31804984.62 -31804984.44 -31804984.20 0.0088 0.0055
 Neptune -91790-09-15 08:23 J -31804617.38 -31804617.15 -31804616.89 0.0088 0.0024
 Neptune -91789-09-16 23:01 J -31804249.81 -31804249.54 -31804249.27 0.0088 0.0004
 Neptune -91788-09-19 09:49 J -31803882.31 -31803882.09 -31803881.85 0.0088 0.0035
 Neptune -91787-09-21 18:56 J -31803514.87 -31803514.71 -31803514.50 0.0088 0.0064

Mars	-91784-01-10 17:44 J	-31802672.83	-31802672.76	-31802672.68	0.1658	0.1496
Uranus	-91783-10-05 21:20 J	-31802039.64	-31802039.61	-31802039.57	0.0131	0.0129
Saturn	-91782-08-12 00:56 J	-31801729.68	-31801729.46	-31801729.23	0.0281	0.0109
Uranus	-91782-10-10 03:35 J	-31801670.44	-31801670.35	-31801670.22	0.0131	0.0117
Jupiter	-91781-03-25 17:30 J	-31801502.98	-31801502.77	-31801502.55	0.0490	0.0225
Saturn	-91781-08-24 19:54 J	-31801350.89	-31801350.67	-31801350.44	0.0280	0.0132
Uranus	-91781-10-12 23:44 J	-31801301.70	-31801301.51	-31801301.28	0.0131	0.0077
Uranus	-91780-10-17 06:13 J	-31800932.45	-31800932.24	-31800932.02	0.0131	0.0062
Uranus	-91779-10-21 01:39 J	-31800563.67	-31800563.43	-31800563.17	0.0131	0.0027
Uranus	-91778-10-25 07:54 J	-31800194.41	-31800194.17	-31800193.92	0.0131	0.0005
Uranus	-91777-10-28 03:06 J	-31799825.62	-31799825.37	-31799825.12	0.0132	0.0021
Uranus	-91776-11-01 09:06 J	-31799456.34	-31799456.12	-31799455.90	0.0132	0.0054
Uranus	-91775-11-05 04:03 J	-31799087.55	-31799087.33	-31799087.12	0.0132	0.0070
Uranus	-91774-11-09 10:03 J	-31798718.20	-31798718.08	-31798717.94	0.0132	0.0111
Uranus	-91773-11-12 04:32 J	-31798349.38	-31798349.31	-31798349.20	0.0133	0.0123
Jupiter	-91769-03-29 22:18 J	-31797115.59	-31797115.57	-31797115.52	0.0488	0.0482
Saturn	-91767-01-28 19:39 J	-31796445.86	-31796445.68	-31796445.51	0.0277	0.0184
Saturn	-91766-02-10 00:13 J	-31796068.74	-31796068.49	-31796068.24	0.0278	0.0023
Saturn	-91765-02-22 08:37 J	-31795691.26	-31795691.14	-31795690.99	0.0279	0.0231
Saturn	-91753-08-04 18:42 J	-31791143.86	-31791143.72	-31791143.55	0.0281	0.0220
Saturn	-91752-08-18 16:03 J	-31790765.07	-31790764.83	-31790764.58	0.0280	0.0022
Saturn	-91751-09-01 10:32 J	-31790386.14	-31790386.06	-31790385.97	0.0280	0.0260
Mars	-91744-07-06 01:25 J	-31787886.62	-31787886.44	-31787886.26	0.1851	0.1100
Uranus	-91740-03-31 00:13 J	-31786522.53	-31786522.49	-31786522.43	0.0148	0.0144
Jupiter	-91740-09-24 05:44 J	-31786345.35	-31786345.26	-31786345.15	0.0535	0.0476
Uranus	-91739-04-05 01:54 J	-31786152.60	-31786152.42	-31786152.23	0.0148	0.0102
Saturn	-91738-01-23 17:30 J	-31785858.80	-31785858.77	-31785858.71	0.0277	0.0272
Uranus	-91738-04-10 16:18 J	-31785782.05	-31785781.82	-31785781.59	0.0148	0.0059
Mars	-91737-01-05 16:03 J	-31785512.00	-31785511.83	-31785511.66	0.1673	0.0065
Saturn	-91737-02-05 01:39 J	-31785481.66	-31785481.43	-31785481.21	0.0278	0.0066

Uranus -91737-04-14 21:35 J -31785411.85 -31785411.60 -31785411.33 0.0148 0.0032
 Saturn -91736-02-16 16:47 J -31785103.99 -31785103.80 -31785103.59 0.0279 0.0143
 Uranus -91736-04-20 09:49 J -31785041.33 -31785041.09 -31785040.84 0.0147 0.0022
 Uranus -91735-04-25 19:54 J -31784670.92 -31784670.67 -31784670.42 0.0147 0.0054
 Uranus -91734-05-01 03:49 J -31784300.52 -31784300.34 -31784300.13 0.0147 0.0092
 Uranus -91733-05-05 17:44 J -31783929.82 -31783929.76 -31783929.66 0.0146 0.0140
 Jupiter -91728-09-28 22:32 J -31781957.80 -31781957.56 -31781957.32 0.0537 0.0057
 Saturn -91723-08-13 15:49 J -31780178.09 -31780177.84 -31780177.59 0.0281 0.0075
 Jupiter -91722-03-17 06:42 J -31779962.33 -31779962.22 -31779962.11 0.0493 0.0428
 Saturn -91722-08-27 05:44 J -31779799.47 -31779799.26 -31779799.05 0.0280 0.0164
 Jupiter -91716-10-04 04:32 J -31777569.48 -31777569.31 -31777569.13 0.0539 0.0331
 Jupiter -91710-03-21 14:51 J -31775575.12 -31775574.88 -31775574.64 0.0491 0.0099
 Neptune -91709-03-03 16:03 J -31775226.94 -31775226.83 -31775226.69 0.0089 0.0077
 Saturn -91708-01-30 02:08 J -31774894.60 -31774894.41 -31774894.20 0.0277 0.0155
 Neptune -91708-03-06 09:49 J -31774859.29 -31774859.09 -31774858.86 0.0089 0.0049
 Saturn -91707-02-11 05:01 J -31774517.52 -31774517.29 -31774517.04 0.0278 0.0049
 Neptune -91707-03-08 14:37 J -31774492.14 -31774491.89 -31774491.64 0.0089 0.0018
 Pluto -91707-05-24 12:13 J -31774415.20 -31774414.99 -31774414.76 0.0066 0.0037
 Saturn -91706-02-23 18:56 J -31774139.79 -31774139.71 -31774139.61 0.0279 0.0257
 Neptune -91706-03-11 08:08 J -31774124.42 -31774124.16 -31774123.90 0.0089 0.0011
 Pluto -91706-05-25 21:49 J -31774048.74 -31774048.59 -31774048.39 0.0067 0.0050
 Neptune -91705-03-12 14:08 J -31773757.11 -31773756.91 -31773756.67 0.0089 0.0043
 Neptune -91704-03-15 05:01 J -31773389.44 -31773389.29 -31773389.12 0.0089 0.0070
 Jupiter -91698-03-25 19:54 J -31771187.88 -31771187.67 -31771187.46 0.0490 0.0178
 Uranus -91698-10-10 19:11 J -31770988.85 -31770988.70 -31770988.53 0.0131 0.0098
 Uranus -91697-10-13 14:37 J -31770620.06 -31770619.89 -31770619.67 0.0131 0.0086
 Uranus -91696-10-17 21:35 J -31770250.82 -31770250.60 -31770250.36 0.0131 0.0047
 Uranus -91695-10-21 16:32 J -31769882.06 -31769881.81 -31769881.56 0.0131 0.0029
 Saturn -91694-08-07 08:08 J -31769592.33 -31769592.16 -31769591.96 0.0281 0.0184
 Uranus -91694-10-25 23:01 J -31769512.78 -31769512.54 -31769512.29 0.0131 0.0002

Saturn -91693-08-20 08:08 J -31769213.40 -31769213.16 -31769212.93 0.0280 0.0056
 Uranus -91693-10-28 17:15 J -31769144.02 -31769143.78 -31769143.53 0.0132 0.0028
 Uranus -91692-11-01 23:44 J -31768774.73 -31768774.51 -31768774.27 0.0132 0.0049
 Uranus -91691-11-05 17:59 J -31768405.92 -31768405.75 -31768405.54 0.0132 0.0086
 Uranus -91690-11-10 00:56 J -31768036.60 -31768036.46 -31768036.28 0.0132 0.0100
 Jupiter -91686-03-30 06:13 J -31766800.35 -31766800.24 -31766800.13 0.0489 0.0428
 Saturn -91679-01-25 01:11 J -31764307.55 -31764307.45 -31764307.34 0.0277 0.0244
 Saturn -91678-02-06 11:59 J -31763930.23 -31763930.00 -31763929.76 0.0278 0.0039
 Saturn -91677-02-18 23:44 J -31763552.70 -31763552.51 -31763552.31 0.0279 0.0167
 Mars -91665-07-09 18:42 J -31759027.92 -31759027.72 -31759027.52 0.1858 0.0100
 Saturn -91665-08-01 04:18 J -31759005.35 -31759005.32 -31759005.27 0.0282 0.0278
 Saturn -91664-08-15 00:13 J -31758626.75 -31758626.49 -31758626.23 0.0281 0.0039
 Saturn -91663-08-28 13:39 J -31758248.10 -31758247.93 -31758247.74 0.0280 0.0197
 Mars -91658-01-07 12:56 J -31756655.13 -31756654.96 -31756654.79 0.1669 0.0531
 Uranus -91656-03-31 15:20 J -31755840.96 -31755840.86 -31755840.72 0.0148 0.0130
 Uranus -91655-04-05 16:32 J -31755470.99 -31755470.81 -31755470.60 0.0148 0.0097
 Uranus -91654-04-11 07:11 J -31755100.42 -31755100.20 -31755099.96 0.0148 0.0065
 Uranus -91653-04-15 11:44 J -31754730.28 -31754730.01 -31754729.75 0.0148 0.0013
 Uranus -91652-04-21 00:42 J -31754359.72 -31754359.47 -31754359.22 0.0147 0.0014
 Uranus -91651-04-26 09:06 J -31753989.36 -31753989.12 -31753988.87 0.0147 0.0062
 Uranus -91650-05-01 18:27 J -31753618.89 -31753618.73 -31753618.53 0.0147 0.0102
 Saturn -91649-02-01 05:15 J -31753343.50 -31753343.28 -31753343.06 0.0277 0.0127
 Uranus -91649-05-06 07:54 J -31753248.29 -31753248.17 -31753248.03 0.0146 0.0128
 Saturn -91648-02-12 13:11 J -31752966.17 -31752965.95 -31752965.72 0.0278 0.0077
 Jupiter -91645-09-28 03:20 J -31751642.58 -31751642.36 -31751642.14 0.0537 0.0112
 Jupiter -91639-03-16 13:11 J -31749647.03 -31749646.95 -31749646.86 0.0493 0.0458
 Saturn -91635-08-09 00:56 J -31748040.66 -31748040.46 -31748040.25 0.0281 0.0149
 Saturn -91634-08-22 23:15 J -31747661.77 -31747661.53 -31747661.30 0.0280 0.0089
 Jupiter -91633-10-03 11:30 J -31747254.22 -31747254.02 -31747253.81 0.0538 0.0271
 Jupiter -91627-03-20 15:35 J -31745260.07 -31745259.85 -31745259.64 0.0492 0.0146

Neptune -91627-09-12 00:13 J -31745084.63 -31745084.49 -31745084.30 0.0088 0.0068
 Neptune -91626-09-14 13:39 J -31744717.14 -31744716.93 -31744716.68 0.0088 0.0046
 Neptune -91625-09-16 02:51 J -31744349.63 -31744349.38 -31744349.13 0.0088 0.0008
 Neptune -91624-09-18 10:32 J -31743982.32 -31743982.06 -31743981.80 0.0088 0.0014
 Neptune -91623-09-21 02:51 J -31743614.57 -31743614.38 -31743614.16 0.0088 0.0052
 Neptune -91622-09-23 07:39 J -31743247.31 -31743247.18 -31743247.01 0.0088 0.0072
 Pluto -91621-11-26 23:44 J -31742816.73 -31742816.51 -31742816.26 0.0078 0.0024
 Saturn -91620-01-26 09:49 J -31742756.22 -31742756.09 -31742755.94 0.0278 0.0216
 Saturn -91619-02-07 17:15 J -31742379.03 -31742378.78 -31742378.54 0.0278 0.0011
 Saturn -91618-02-20 00:27 J -31742001.66 -31742001.48 -31742001.30 0.0279 0.0189
 Jupiter -91615-03-25 04:47 J -31740872.53 -31740872.30 -31740872.07 0.0491 0.0127
 Uranus -91615-10-07 02:08 J -31740676.51 -31740676.41 -31740676.30 0.0131 0.0119
 Uranus -91614-10-11 09:49 J -31740307.22 -31740307.09 -31740306.93 0.0131 0.0107
 Uranus -91613-10-14 04:47 J -31739938.50 -31739938.30 -31739938.07 0.0131 0.0067
 Uranus -91612-10-18 12:13 J -31739569.20 -31739568.99 -31739568.75 0.0131 0.0053
 Mars -91611-01-01 12:13 J -31739494.15 -31739493.99 -31739493.83 0.1686 0.0891
 Uranus -91611-10-22 06:56 J -31739200.46 -31739200.21 -31739199.95 0.0131 0.0019
 Uranus -91610-10-26 14:23 J -31738831.15 -31738830.90 -31738830.66 0.0131 0.0004
 Uranus -91609-10-29 08:23 J -31738462.39 -31738462.15 -31738461.90 0.0132 0.0028
 Uranus -91608-11-02 15:20 J -31738093.07 -31738092.86 -31738092.63 0.0132 0.0061
 Uranus -91607-11-06 09:06 J -31737724.31 -31737724.12 -31737723.90 0.0132 0.0077
 Saturn -91606-08-03 11:15 J -31737454.15 -31737454.03 -31737453.89 0.0282 0.0243
 Uranus -91606-11-10 16:32 J -31737354.92 -31737354.81 -31737354.69 0.0132 0.0116
 Saturn -91605-08-16 08:08 J -31737075.41 -31737075.16 -31737074.91 0.0281 0.0005
 Uranus -91605-11-13 09:49 J -31736986.14 -31736986.09 -31736986.00 0.0133 0.0127
 Saturn -91604-08-30 01:25 J -31736696.57 -31736696.44 -31736696.30 0.0280 0.0228
 Jupiter -91603-03-29 07:25 J -31736485.33 -31736485.19 -31736485.05 0.0489 0.0390
 Saturn -91590-02-02 09:35 J -31731792.31 -31731792.10 -31731791.87 0.0277 0.0101
 Saturn -91589-02-14 22:47 J -31731414.77 -31731414.55 -31731414.33 0.0278 0.0100
 Mars -91579-01-09 18:27 J -31727797.87 -31727797.73 -31727797.59 0.1665 0.1141

Saturn -91576-08-10 13:25 J -31726489.17 -31726488.94 -31726488.71 0.0281 0.0115
 Saturn -91575-08-24 06:42 J -31726110.44 -31726110.22 -31726109.98 0.0280 0.0121
 Uranus -91572-04-01 03:35 J -31725159.44 -31725159.35 -31725159.23 0.0148 0.0134
 Uranus -91571-04-06 04:18 J -31724789.51 -31724789.32 -31724789.10 0.0148 0.0093
 Uranus -91570-04-11 20:08 J -31724418.89 -31724418.66 -31724418.42 0.0148 0.0050
 Uranus -91569-04-15 23:44 J -31724048.76 -31724048.51 -31724048.24 0.0148 0.0024
 Uranus -91568-04-21 14:08 J -31723678.15 -31723677.91 -31723677.66 0.0147 0.0031
 Uranus -91567-04-26 21:49 J -31723307.83 -31723307.59 -31723307.34 0.0147 0.0060
 Uranus -91566-05-02 08:23 J -31722937.32 -31722937.15 -31722936.95 0.0147 0.0098
 Uranus -91565-05-06 19:54 J -31722566.70 -31722566.67 -31722566.60 0.0147 0.0144
 Jupiter -91562-09-28 07:11 J -31721327.43 -31721327.20 -31721326.97 0.0536 0.0161
 Saturn -91561-01-28 13:39 J -31721205.10 -31721204.93 -31721204.74 0.0277 0.0189
 Saturn -91560-02-08 16:18 J -31720828.07 -31720827.82 -31720827.57 0.0278 0.0011
 Saturn -91559-02-21 02:08 J -31720450.55 -31720450.41 -31720450.24 0.0279 0.0211
 Jupiter -91550-10-03 00:56 J -31716939.67 -31716939.46 -31716939.24 0.0538 0.0186
 Saturn -91547-08-04 17:59 J -31715902.90 -31715902.75 -31715902.58 0.0282 0.0213
 Saturn -91546-08-18 19:11 J -31715523.94 -31715523.70 -31715523.46 0.0281 0.0027
 Saturn -91545-08-31 14:23 J -31715144.98 -31715144.90 -31715144.80 0.0280 0.0259
 Neptune -91544-03-05 08:08 J -31714959.29 -31714959.16 -31714958.98 0.0089 0.0069
 Jupiter -91544-03-20 05:44 J -31714944.48 -31714944.26 -31714944.04 0.0493 0.0177
 Neptune -91543-03-08 01:25 J -31714591.68 -31714591.44 -31714591.19 0.0089 0.0030
 Neptune -91542-03-10 09:06 J -31714224.36 -31714224.12 -31714223.87 0.0089 0.0010
 Neptune -91541-03-11 21:35 J -31713856.83 -31713856.60 -31713856.33 0.0089 0.0029
 Neptune -91540-03-14 10:03 J -31713489.27 -31713489.08 -31713488.86 0.0089 0.0050
 Neptune -91539-03-16 17:44 J -31713121.77 -31713121.76 -31713121.70 0.0089 0.0088
 Mars -91532-01-03 22:32 J -31710636.75 -31710636.56 -31710636.37 0.1681 0.0404
 Jupiter -91532-03-24 07:25 J -31710557.42 -31710557.19 -31710556.96 0.0491 0.0089
 Saturn -91531-02-03 17:15 J -31710241.00 -31710240.78 -31710240.56 0.0277 0.0078
 Uranus -91531-10-07 16:47 J -31709994.86 -31709994.80 -31709994.73 0.0131 0.0126
 Saturn -91530-02-16 04:18 J -31709863.53 -31709863.32 -31709863.10 0.0278 0.0124

Uranus	-91530-10-12 01:11 J	-31709625.62	-31709625.45	-31709625.25	0.0131	0.0088
Uranus	-91529-10-14 20:08 J	-31709256.86	-31709256.66	-31709256.45	0.0131	0.0075
Uranus	-91528-10-19 03:49 J	-31708887.57	-31708887.34	-31708887.10	0.0131	0.0038
Uranus	-91527-10-22 22:03 J	-31708518.83	-31708518.58	-31708518.33	0.0131	0.0021
Uranus	-91526-10-27 05:30 J	-31708149.52	-31708149.27	-31708149.02	0.0131	0.0008
Uranus	-91525-10-29 22:47 J	-31707780.78	-31707780.55	-31707780.30	0.0132	0.0036
Uranus	-91524-11-03 06:27 J	-31707411.46	-31707411.23	-31707411.01	0.0132	0.0055
Uranus	-91523-11-06 23:30 J	-31707042.68	-31707042.52	-31707042.32	0.0132	0.0092
Uranus	-91522-11-11 06:42 J	-31706673.35	-31706673.22	-31706673.05	0.0132	0.0105
Jupiter	-91520-03-28 22:32 J	-31706169.71	-31706169.56	-31706169.39	0.0489	0.0356
Saturn	-91517-08-11 18:42 J	-31704937.97	-31704937.72	-31704937.47	0.0281	0.0084
Saturn	-91516-08-25 09:49 J	-31704559.29	-31704559.09	-31704558.87	0.0280	0.0153
Saturn	-91502-01-29 10:32 J	-31699654.25	-31699654.06	-31699653.86	0.0277	0.0168
Saturn	-91501-02-10 15:06 J	-31699277.11	-31699276.87	-31699276.64	0.0278	0.0033
Saturn	-91500-02-22 06:42 J	-31698899.33	-31698899.22	-31698899.08	0.0279	0.0233
Uranus	-91488-04-01 17:44 J	-31694477.89	-31694477.76	-31694477.59	0.0148	0.0119
Saturn	-91488-08-06 02:37 J	-31694351.56	-31694351.39	-31694351.19	0.0282	0.0186
Uranus	-91487-04-06 19:11 J	-31694107.91	-31694107.70	-31694107.50	0.0148	0.0087
Saturn	-91487-08-20 05:30 J	-31693972.51	-31693972.27	-31693972.03	0.0281	0.0057
Uranus	-91486-04-12 10:32 J	-31693737.29	-31693737.06	-31693736.82	0.0148	0.0055
Mars	-91486-12-29 20:37 J	-31693475.65	-31693475.64	-31693475.64	0.1699	0.1697
Uranus	-91485-04-16 13:54 J	-31693367.19	-31693366.92	-31693366.66	0.0148	0.0004
Uranus	-91484-04-22 04:47 J	-31692996.55	-31692996.30	-31692996.05	0.0147	0.0022
Uranus	-91483-04-27 11:01 J	-31692626.27	-31692626.04	-31692625.79	0.0147	0.0069
Uranus	-91482-05-02 23:01 J	-31692255.70	-31692255.54	-31692255.35	0.0147	0.0107
Uranus	-91481-05-07 09:49 J	-31691885.19	-31691885.09	-31691884.96	0.0147	0.0133
Jupiter	-91479-09-26 23:44 J	-31691012.71	-31691012.51	-31691012.31	0.0535	0.0237
Saturn	-91473-01-24 15:49 J	-31689066.92	-31689066.84	-31689066.75	0.0276	0.0255
Saturn	-91472-02-04 22:03 J	-31688689.81	-31688689.58	-31688689.34	0.0277	0.0056
Saturn	-91471-02-17 03:35 J	-31688312.56	-31688312.35	-31688312.13	0.0278	0.0143

Jupiter -91467-10-02 11:59 J -31686624.22 -31686624.00 -31686623.77 0.0538 0.0130
 Neptune -91463-09-11 02:37 J -31685184.45 -31685184.39 -31685184.30 0.0088 0.0085
 Neptune -91462-09-13 17:44 J -31684816.93 -31684816.76 -31684816.56 0.0088 0.0061
 Jupiter -91461-03-19 08:37 J -31684629.35 -31684629.14 -31684628.93 0.0493 0.0211
 Neptune -91461-09-15 00:42 J -31684449.71 -31684449.47 -31684449.20 0.0088 0.0027
 Mars -91460-07-04 11:01 J -31684157.18 -31684157.04 -31684156.89 0.1840 0.1273
 Neptune -91460-09-17 19:11 J -31684081.96 -31684081.70 -31684081.44 0.0088 0.0002
 Pluto -91459-05-25 11:15 J -31683832.14 -31683832.03 -31683831.84 0.0066 0.0055
 Neptune -91459-09-19 23:30 J -31683714.75 -31683714.52 -31683714.27 0.0088 0.0031
 Pluto -91458-05-27 11:15 J -31683465.24 -31683465.03 -31683464.78 0.0067 0.0035
 Saturn -91458-08-13 20:23 J -31683386.90 -31683386.65 -31683386.39 0.0281 0.0054
 Neptune -91458-09-22 17:44 J -31683346.94 -31683346.76 -31683346.55 0.0088 0.0057
 Saturn -91457-08-26 15:20 J -31683008.03 -31683007.86 -31683007.66 0.0280 0.0182
 Jupiter -91455-10-07 11:44 J -31682236.09 -31682236.01 -31682235.93 0.0539 0.0503
 Mars -91453-01-07 04:47 J -31681779.48 -31681779.30 -31681779.13 0.1677 0.0485
 Jupiter -91449-03-23 22:03 J -31680241.81 -31680241.58 -31680241.35 0.0491 0.0044
 Uranus -91447-10-08 06:56 J -31679313.33 -31679313.21 -31679313.05 0.0131 0.0109
 Uranus -91446-10-12 16:03 J -31678943.99 -31678943.83 -31678943.66 0.0131 0.0096
 Uranus -91445-10-15 10:18 J -31678575.29 -31678575.07 -31678574.83 0.0131 0.0057
 Uranus -91444-10-19 18:27 J -31678205.95 -31678205.73 -31678205.48 0.0131 0.0044
 Saturn -91443-01-30 08:23 J -31678103.34 -31678103.15 -31678102.94 0.0277 0.0148
 Uranus -91443-10-23 12:42 J -31677837.22 -31677836.97 -31677836.71 0.0131 0.0010
 Saturn -91442-02-11 18:13 J -31677725.97 -31677725.74 -31677725.51 0.0278 0.0050
 Uranus -91442-10-27 20:37 J -31677467.89 -31677467.64 -31677467.39 0.0131 0.0011
 Saturn -91441-02-24 10:03 J -31677348.17 -31677348.08 -31677347.97 0.0279 0.0251
 Uranus -91441-10-30 14:08 J -31677099.15 -31677098.91 -31677098.66 0.0131 0.0036
 Uranus -91440-11-03 21:35 J -31676729.81 -31676729.60 -31676729.38 0.0132 0.0068
 Uranus -91439-11-07 14:37 J -31676361.06 -31676360.89 -31676360.68 0.0132 0.0083
 Uranus -91438-11-11 22:03 J -31675991.67 -31675991.58 -31675991.47 0.0132 0.0121
 Jupiter -91437-03-28 00:27 J -31675854.66 -31675854.48 -31675854.29 0.0490 0.0316

Uranus -91437-11-14 15:06 J -31675622.89 -31675622.87 -31675622.82 0.0133 0.0131
 Saturn -91429-08-07 11:15 J -31672800.24 -31672800.03 -31672799.83 0.0282 0.0158
 Saturn -91428-08-21 09:49 J -31672421.33 -31672421.09 -31672420.84 0.0281 0.0082
 Saturn -91414-01-25 19:11 J -31667515.82 -31667515.70 -31667515.57 0.0276 0.0231
 Saturn -91413-02-06 19:25 J -31667138.93 -31667138.69 -31667138.44 0.0277 0.0039
 Saturn -91412-02-18 00:27 J -31666761.67 -31666761.48 -31666761.27 0.0278 0.0160
 Mars -91407-12-31 22:32 J -31664618.65 -31664618.56 -31664618.46 0.1695 0.1398
 Uranus -91405-03-27 15:20 J -31664166.89 -31664166.86 -31664166.82 0.0148 0.0146
 Uranus -91404-04-02 05:15 J -31663796.42 -31663796.28 -31663796.14 0.0148 0.0123
 Uranus -91403-04-07 06:13 J -31663426.45 -31663426.24 -31663426.03 0.0148 0.0082
 Uranus -91402-04-12 22:32 J -31663055.81 -31663055.56 -31663055.31 0.0148 0.0040
 Uranus -91401-04-17 01:11 J -31662685.70 -31662685.45 -31662685.18 0.0148 0.0015
 Uranus -91400-04-22 17:15 J -31662315.03 -31662314.78 -31662314.54 0.0147 0.0039
 Saturn -91400-07-31 22:18 J -31662214.65 -31662214.57 -31662214.48 0.0282 0.0266
 Uranus -91399-04-27 22:32 J -31661944.80 -31661944.56 -31661944.32 0.0147 0.0066
 Saturn -91399-08-15 01:11 J -31661835.70 -31661835.45 -31661835.21 0.0281 0.0029
 Uranus -91398-05-03 11:30 J -31661574.18 -31661574.02 -31661573.83 0.0147 0.0104
 Saturn -91398-08-28 23:44 J -31661456.66 -31661456.51 -31661456.34 0.0280 0.0206
 Jupiter -91396-09-26 13:39 J -31660697.13 -31660696.93 -31660696.72 0.0535 0.0271
 Saturn -91384-01-31 11:59 J -31656552.21 -31656552.00 -31656551.80 0.0277 0.0129
 Jupiter -91384-10-01 11:30 J -31656309.25 -31656309.02 -31656308.79 0.0537 0.0086
 Saturn -91383-02-12 21:49 J -31656174.82 -31656174.59 -31656174.35 0.0278 0.0068
 Saturn -91382-02-25 08:37 J -31655797.21 -31655797.14 -31655797.08 0.0279 0.0268
 Mars -91381-07-08 14:23 J -31655298.14 -31655297.90 -31655297.67 0.1849 0.0146
 Neptune -91380-03-04 17:59 J -31655058.83 -31655058.75 -31655058.61 0.0089 0.0081
 Neptune -91379-03-07 03:06 J -31654691.57 -31654691.37 -31654691.16 0.0089 0.0051
 Neptune -91378-03-09 13:54 J -31654324.16 -31654323.92 -31654323.65 0.0089 0.0023
 Jupiter -91378-03-19 23:44 J -31654313.70 -31654313.51 -31654313.31 0.0493 0.0250
 Neptune -91377-03-11 04:32 J -31653956.56 -31653956.31 -31653956.06 0.0089 0.0008
 Neptune -91376-03-13 11:15 J -31653589.26 -31653589.03 -31653588.78 0.0089 0.0037

Neptune -91375-03-16 05:15 J -31653221.44 -31653221.28 -31653221.11 0.0089 0.0067
 Mars -91374-01-09 02:51 J -31652922.52 -31652922.38 -31652922.25 0.1674 0.1062
 Pluto -91373-11-28 01:39 J -31652233.61 -31652233.43 -31652233.22 0.0078 0.0048
 Jupiter -91372-10-06 17:44 J -31651920.88 -31651920.76 -31651920.63 0.0538 0.0441
 Saturn -91370-08-09 12:42 J -31651249.20 -31651248.97 -31651248.74 0.0282 0.0132
 Saturn -91369-08-22 07:39 J -31650870.42 -31650870.18 -31650869.94 0.0281 0.0108
 Jupiter -91366-03-24 02:51 J -31649926.62 -31649926.38 -31649926.14 0.0492 0.0009
 Uranus -91364-10-05 02:08 J -31649000.42 -31649000.41 -31649000.36 0.0131 0.0130
 Uranus -91363-10-08 21:35 J -31648631.70 -31648631.60 -31648631.46 0.0131 0.0116
 Uranus -91362-10-13 06:56 J -31648262.41 -31648262.21 -31648262.00 0.0131 0.0077
 Uranus -91361-10-16 01:11 J -31647893.65 -31647893.45 -31647893.22 0.0131 0.0066
 Uranus -91360-10-20 09:49 J -31647524.33 -31647524.09 -31647523.84 0.0131 0.0029
 Uranus -91359-10-24 03:49 J -31647155.58 -31647155.34 -31647155.09 0.0131 0.0013
 Uranus -91358-10-28 11:30 J -31646786.26 -31646786.02 -31646785.77 0.0131 0.0016
 Uranus -91357-10-31 04:47 J -31646417.53 -31646417.30 -31646417.06 0.0131 0.0043
 Uranus -91356-11-04 12:13 J -31646048.21 -31646047.99 -31646047.77 0.0132 0.0062
 Saturn -91355-01-26 17:01 J -31645964.93 -31645964.79 -31645964.62 0.0276 0.0211
 Uranus -91355-11-08 05:15 J -31645679.43 -31645679.28 -31645679.10 0.0132 0.0098
 Saturn -91354-02-07 16:03 J -31645588.07 -31645587.83 -31645587.58 0.0277 0.0023
 Jupiter -91354-03-28 15:20 J -31645539.04 -31645538.86 -31645538.68 0.0490 0.0297
 Uranus -91354-11-12 12:42 J -31645310.11 -31645309.97 -31645309.83 0.0132 0.0109
 Saturn -91353-02-20 02:23 J -31645210.57 -31645210.40 -31645210.21 0.0278 0.0178
 Saturn -91341-08-02 03:06 J -31640663.49 -31640663.37 -31640663.24 0.0282 0.0239
 Saturn -91340-08-16 08:23 J -31640284.39 -31640284.15 -31640283.91 0.0281 0.0002
 Saturn -91339-08-30 05:15 J -31639905.41 -31639905.28 -31639905.13 0.0280 0.0230
 Mars -91327-01-02 18:42 J -31635761.89 -31635761.72 -31635761.55 0.1691 0.0397
 Saturn -91325-02-02 14:51 J -31635001.09 -31635000.88 -31635000.65 0.0277 0.0110
 Saturn -91324-02-13 19:25 J -31634623.92 -31634623.69 -31634623.45 0.0278 0.0084
 Uranus -91320-04-02 18:42 J -31633114.89 -31633114.72 -31633114.54 0.0148 0.0108
 Uranus -91319-04-07 19:54 J -31632744.87 -31632744.67 -31632744.44 0.0148 0.0078

Uranus -91318-04-13 11:59 J -31632374.24 -31632374.00 -31632373.75 0.0148 0.0045
 Uranus -91317-04-17 14:08 J -31632004.17 -31632003.91 -31632003.65 0.0148 0.0006
 Uranus -91316-04-23 06:27 J -31631633.47 -31631633.23 -31631632.98 0.0147 0.0029
 Uranus -91315-04-28 10:47 J -31631263.26 -31631263.05 -31631262.81 0.0147 0.0076
 Uranus -91314-05-04 01:25 J -31630892.60 -31630892.44 -31630892.27 0.0147 0.0111
 Uranus -91313-05-08 09:06 J -31630522.19 -31630522.12 -31630522.00 0.0147 0.0138
 Jupiter -91313-09-25 07:11 J -31630382.38 -31630382.20 -31630382.01 0.0534 0.0329
 Saturn -91311-08-10 08:51 J -31629698.36 -31629698.13 -31629697.88 0.0282 0.0104
 Saturn -91310-08-24 06:27 J -31629319.44 -31629319.23 -31629319.00 0.0282 0.0132
 Jupiter -91301-09-30 17:59 J -31625993.98 -31625993.75 -31625993.52 0.0536 0.0017
 Neptune -91298-09-12 15:35 J -31624916.98 -31624916.85 -31624916.68 0.0088 0.0072
 Neptune -91297-09-14 10:47 J -31624549.26 -31624549.05 -31624548.83 0.0088 0.0050
 Saturn -91296-01-27 13:54 J -31624414.08 -31624413.92 -31624413.73 0.0276 0.0191
 Neptune -91296-09-16 15:35 J -31624182.10 -31624181.85 -31624181.59 0.0088 0.0012
 Mars -91295-01-10 22:32 J -31624065.62 -31624065.56 -31624065.50 0.1670 0.1562
 Saturn -91295-02-08 18:56 J -31624036.94 -31624036.71 -31624036.47 0.0277 0.0004
 Jupiter -91295-03-19 04:32 J -31623998.50 -31623998.31 -31623998.11 0.0494 0.0281
 Neptune -91295-09-19 09:20 J -31623814.37 -31623814.11 -31623813.84 0.0088 0.0009
 Saturn -91294-02-21 07:54 J -31623659.33 -31623659.17 -31623659.00 0.0278 0.0195
 Neptune -91294-09-21 15:35 J -31623447.04 -31623446.85 -31623446.61 0.0088 0.0047
 Neptune -91293-09-23 05:44 J -31623079.41 -31623079.26 -31623079.07 0.0088 0.0067
 Jupiter -91289-10-05 17:15 J -31621605.94 -31621605.78 -31621605.61 0.0538 0.0391
 Jupiter -91283-03-23 17:01 J -31619611.01 -31619610.79 -31619610.56 0.0492 0.0023
 Saturn -91282-08-04 10:03 J -31619112.23 -31619112.08 -31619111.91 0.0283 0.0212
 Saturn -91281-08-17 12:42 J -31618733.22 -31618732.97 -31618732.71 0.0282 0.0024
 Saturn -91280-08-31 04:47 J -31618354.42 -31618354.30 -31618354.19 0.0280 0.0250
 Uranus -91279-10-09 12:27 J -31617950.13 -31617949.98 -31617949.80 0.0131 0.0098
 Uranus -91278-10-13 21:20 J -31617580.78 -31617580.61 -31617580.41 0.0131 0.0086
 Uranus -91277-10-16 16:03 J -31617212.05 -31617211.83 -31617211.59 0.0131 0.0048
 Uranus -91276-10-21 00:27 J -31616842.71 -31616842.48 -31616842.23 0.0131 0.0035

Uranus	-91275-10-24 18:56 J	-31616473.96	-31616473.71	-31616473.46	0.0131	0.0002
Uranus	-91274-10-29 02:23 J	-31616104.65	-31616104.40	-31616104.15	0.0131	0.0019
Uranus	-91273-10-31 19:54 J	-31615735.89	-31615735.67	-31615735.42	0.0131	0.0044
Uranus	-91272-11-05 03:06 J	-31615366.56	-31615366.37	-31615366.15	0.0132	0.0075
Jupiter	-91271-03-27 23:59 J	-31615223.70	-31615223.50	-31615223.30	0.0491	0.0266
Uranus	-91271-11-08 20:37 J	-31614997.81	-31614997.64	-31614997.45	0.0132	0.0089
Uranus	-91270-11-13 03:20 J	-31614628.42	-31614628.36	-31614628.27	0.0132	0.0125
Saturn	-91267-01-22 13:54 J	-31613826.93	-31613826.92	-31613826.89	0.0276	0.0275
Saturn	-91266-02-03 13:54 J	-31613450.15	-31613449.92	-31613449.68	0.0277	0.0089
Saturn	-91265-02-15 15:06 J	-31613073.10	-31613072.87	-31613072.64	0.0278	0.0100
Saturn	-91252-08-11 08:23 J	-31608147.38	-31608147.15	-31608146.90	0.0283	0.0080
Saturn	-91251-08-25 10:47 J	-31607768.25	-31607768.05	-31607767.85	0.0282	0.0154
Mars	-91248-01-04 17:59 J	-31606904.94	-31606904.75	-31606904.57	0.1687	0.0056
Saturn	-91237-01-29 16:32 J	-31602862.99	-31602862.81	-31602862.63	0.0276	0.0170
Uranus	-91237-03-28 17:15 J	-31602803.86	-31602803.78	-31602803.67	0.0148	0.0136
Saturn	-91236-02-10 00:42 J	-31602485.70	-31602485.47	-31602485.24	0.0277	0.0016
Uranus	-91236-04-03 05:30 J	-31602433.42	-31602433.27	-31602433.09	0.0148	0.0114
Saturn	-91235-02-22 09:35 J	-31602108.25	-31602108.10	-31602107.93	0.0278	0.0212
Uranus	-91235-04-08 07:39 J	-31602063.39	-31602063.18	-31602062.95	0.0148	0.0073
Uranus	-91234-04-13 23:30 J	-31601692.76	-31601692.52	-31601692.25	0.0148	0.0032
Uranus	-91233-04-18 01:54 J	-31601322.68	-31601322.42	-31601322.16	0.0148	0.0006
Uranus	-91232-04-23 18:13 J	-31600951.97	-31600951.74	-31600951.48	0.0147	0.0047
Uranus	-91231-04-28 21:49 J	-31600581.81	-31600581.59	-31600581.35	0.0147	0.0072
Uranus	-91230-05-04 12:56 J	-31600211.12	-31600210.96	-31600210.78	0.0147	0.0109
Jupiter	-91230-09-25 17:59 J	-31600066.91	-31600066.75	-31600066.59	0.0534	0.0380
Saturn	-91223-08-05 13:39 J	-31597561.12	-31597560.93	-31597560.73	0.0283	0.0183
Saturn	-91222-08-19 12:13 J	-31597182.25	-31597181.99	-31597181.73	0.0282	0.0050
Saturn	-91221-09-01 03:20 J	-31596803.40	-31596803.36	-31596803.29	0.0281	0.0274
Jupiter	-91218-09-30 18:27 J	-31595678.97	-31595678.73	-31595678.49	0.0536	0.0032
Neptune	-91215-03-06 07:11 J	-31594791.33	-31594791.20	-31594791.02	0.0089	0.0072

Neptune -91214-03-08 22:18 J -31594423.79 -31594423.57 -31594423.32 0.0089 0.0034
 Neptune -91213-03-10 04:03 J -31594056.58 -31594056.33 -31594056.07 0.0089 0.0013
 Neptune -91212-03-12 22:03 J -31593688.81 -31593688.58 -31593688.32 0.0089 0.0025
 Jupiter -91212-03-18 17:01 J -31593682.96 -31593682.79 -31593682.62 0.0494 0.0319
 Neptune -91211-03-15 02:37 J -31593321.60 -31593321.39 -31593321.16 0.0089 0.0045
 Pluto -91211-05-27 05:44 J -31593248.34 -31593248.26 -31593248.15 0.0066 0.0062
 Neptune -91210-03-17 20:23 J -31592953.71 -31592953.65 -31592953.55 0.0089 0.0084
 Pluto -91210-05-28 16:47 J -31592882.01 -31592881.80 -31592881.56 0.0067 0.0035
 Saturn -91208-01-23 15:20 J -31592275.95 -31592275.86 -31592275.76 0.0276 0.0253
 Saturn -91207-02-04 11:30 J -31591899.26 -31591899.02 -31591898.78 0.0277 0.0072
 Saturn -91206-02-16 17:15 J -31591521.99 -31591521.78 -31591521.57 0.0278 0.0120
 Jupiter -91206-10-06 02:37 J -31591290.55 -31591290.39 -31591290.22 0.0538 0.0361
 Mars -91202-12-30 11:59 J -31589744.12 -31589744.00 -31589743.88 0.1706 0.1314
 Jupiter -91200-03-23 01:25 J -31589295.68 -31589295.44 -31589295.20 0.0492 0.0058
 Uranus -91196-10-06 06:42 J -31587637.30 -31587637.22 -31587637.09 0.0131 0.0120
 Uranus -91195-10-10 02:37 J -31587268.51 -31587268.39 -31587268.22 0.0131 0.0106
 Uranus -91194-10-14 11:44 J -31586899.21 -31586899.01 -31586898.78 0.0131 0.0068
 Saturn -91193-08-12 14:37 J -31586596.12 -31586595.89 -31586595.64 0.0283 0.0055
 Uranus -91193-10-17 06:56 J -31586530.42 -31586530.21 -31586529.97 0.0131 0.0057
 Saturn -91192-08-26 16:18 J -31586217.00 -31586216.82 -31586216.62 0.0282 0.0178
 Uranus -91192-10-21 15:20 J -31586161.11 -31586160.86 -31586160.61 0.0131 0.0021
 Uranus -91191-10-25 09:35 J -31585792.35 -31585792.10 -31585791.85 0.0131 0.0005
 Uranus -91190-10-29 16:32 J -31585423.05 -31585422.81 -31585422.56 0.0131 0.0024
 Uranus -91189-11-01 10:03 J -31585054.29 -31585054.08 -31585053.83 0.0132 0.0051
 Jupiter -91188-03-27 06:13 J -31584908.43 -31584908.24 -31584908.04 0.0492 0.0243
 Uranus -91188-11-05 16:47 J -31584685.00 -31584684.80 -31584684.57 0.0132 0.0069
 Uranus -91187-11-09 10:47 J -31584316.18 -31584316.05 -31584315.88 0.0132 0.0103
 Uranus -91186-11-13 17:15 J -31583946.89 -31583946.78 -31583946.63 0.0132 0.0114
 Saturn -91178-01-30 23:30 J -31581311.71 -31581311.52 -31581311.32 0.0276 0.0150
 Saturn -91177-02-12 04:03 J -31580934.57 -31580934.33 -31580934.09 0.0277 0.0038

Saturn -91176-02-23 07:54 J -31580557.29 -31580557.17 -31580557.02 0.0278 0.0232
 Mars -91176-07-04 06:56 J -31580426.37 -31580426.21 -31580426.06 0.1832 0.1106
 Mars -91169-01-07 23:15 J -31578047.70 -31578047.53 -31578047.36 0.1683 0.0795
 Saturn -91164-08-06 12:56 J -31576010.17 -31576009.96 -31576009.73 0.0283 0.0156
 Saturn -91163-08-20 12:27 J -31575631.22 -31575630.98 -31575630.73 0.0282 0.0076
 Uranus -91153-03-29 08:51 J -31572122.17 -31572122.13 -31572122.08 0.0148 0.0145
 Uranus -91152-04-03 19:54 J -31571751.85 -31571751.67 -31571751.46 0.0148 0.0098
 Uranus -91151-04-08 22:32 J -31571381.78 -31571381.56 -31571381.33 0.0148 0.0069
 Uranus -91150-04-14 13:39 J -31571011.18 -31571010.93 -31571010.68 0.0148 0.0036
 Saturn -91149-01-25 13:54 J -31570725.03 -31570724.92 -31570724.78 0.0276 0.0234
 Uranus -91149-04-18 15:20 J -31570641.11 -31570640.86 -31570640.60 0.0148 0.0014
 Saturn -91148-02-05 14:23 J -31570348.13 -31570347.90 -31570347.67 0.0276 0.0049
 Uranus -91148-04-24 08:08 J -31570270.40 -31570270.16 -31570269.91 0.0147 0.0035
 Saturn -91147-02-18 00:56 J -31569970.66 -31569970.46 -31569970.26 0.0277 0.0142
 Uranus -91147-04-29 11:01 J -31569900.24 -31569900.04 -31569899.81 0.0147 0.0082
 Jupiter -91147-09-24 18:27 J -31569751.87 -31569751.73 -31569751.58 0.0534 0.0423
 Uranus -91146-05-05 03:06 J -31569529.51 -31569529.37 -31569529.20 0.0147 0.0115
 Uranus -91145-05-09 08:23 J -31569159.19 -31569159.15 -31569159.05 0.0147 0.0142
 Saturn -91135-07-31 14:23 J -31565423.99 -31565423.90 -31565423.81 0.0283 0.0263
 Jupiter -91135-09-30 00:27 J -31565363.70 -31565363.48 -31565363.26 0.0535 0.0088
 Saturn -91134-08-14 21:35 J -31565044.85 -31565044.60 -31565044.35 0.0283 0.0028
 Neptune -91134-09-12 01:54 J -31565016.43 -31565016.42 -31565016.36 0.0088 0.0088
 Saturn -91133-08-27 18:56 J -31564665.89 -31564665.71 -31564665.52 0.0282 0.0199
 Neptune -91133-09-13 07:54 J -31564649.33 -31564649.17 -31564648.99 0.0088 0.0065
 Neptune -91132-09-16 01:11 J -31564281.68 -31564281.45 -31564281.18 0.0088 0.0031
 Neptune -91131-09-18 10:03 J -31563914.33 -31563914.08 -31563913.83 0.0088 0.0006
 Neptune -91130-09-20 21:49 J -31563546.82 -31563546.59 -31563546.31 0.0088 0.0029
 Jupiter -91129-03-17 23:44 J -31563367.67 -31563367.51 -31563367.34 0.0495 0.0357
 Neptune -91129-09-22 10:32 J -31563179.24 -31563179.06 -31563178.84 0.0088 0.0053
 Neptune -91128-09-24 17:59 J -31562811.78 -31562811.75 -31562811.67 0.0088 0.0086

Pluto -91125-11-29 20:23 J -31561649.82 -31561649.65 -31561649.45 0.0078 0.0054
 Jupiter -91123-10-05 04:03 J -31560975.53 -31560975.33 -31560975.13 0.0536 0.0298
 Mars -91122-01-01 23:01 J -31560886.70 -31560886.54 -31560886.38 0.1701 0.0948
 Saturn -91119-02-01 05:15 J -31559760.49 -31559760.28 -31559760.06 0.0276 0.0128
 Saturn -91118-02-13 04:47 J -31559383.55 -31559383.30 -31559383.06 0.0277 0.0058
 Saturn -91117-02-25 11:01 J -31559006.12 -31559006.04 -31559005.93 0.0277 0.0254
 Jupiter -91117-03-22 05:44 J -31558980.48 -31558980.26 -31558980.04 0.0493 0.0093
 Uranus -91112-10-06 21:20 J -31556955.69 -31556955.61 -31556955.52 0.0131 0.0123
 Uranus -91111-10-10 17:01 J -31556586.95 -31556586.79 -31556586.59 0.0131 0.0089
 Uranus -91110-10-15 01:39 J -31556217.62 -31556217.43 -31556217.21 0.0131 0.0077
 Uranus -91109-10-17 21:20 J -31555848.84 -31555848.61 -31555848.37 0.0131 0.0039
 Uranus -91108-10-22 05:01 J -31555479.54 -31555479.29 -31555479.04 0.0131 0.0027
 Uranus -91107-10-25 23:44 J -31555110.75 -31555110.51 -31555110.26 0.0131 0.0006
 Uranus -91106-10-30 06:27 J -31554741.47 -31554741.23 -31554740.97 0.0131 0.0026
 Jupiter -91105-03-26 20:23 J -31554592.86 -31554592.65 -31554592.43 0.0492 0.0222
 Saturn -91105-08-07 17:30 J -31554458.99 -31554458.77 -31554458.55 0.0283 0.0128
 Uranus -91105-11-02 01:11 J -31554372.67 -31554372.45 -31554372.22 0.0132 0.0050
 Saturn -91104-08-21 20:37 J -31554079.86 -31554079.64 -31554079.41 0.0282 0.0102
 Uranus -91104-11-06 07:25 J -31554003.38 -31554003.19 -31554002.98 0.0132 0.0080
 Uranus -91103-11-10 01:39 J -31553634.58 -31553634.43 -31553634.24 0.0132 0.0094
 Uranus -91102-11-14 07:25 J -31553265.22 -31553265.19 -31553265.11 0.0132 0.0129
 Mars -91097-07-07 10:18 J -31551568.26 -31551568.07 -31551567.87 0.1839 0.0027
 Mars -91090-01-10 09:06 J -31549190.19 -31549190.12 -31549190.04 0.1678 0.1520
 Saturn -91090-01-26 18:27 J -31549173.88 -31549173.73 -31549173.58 0.0276 0.0213
 Saturn -91089-02-07 23:44 J -31548796.74 -31548796.51 -31548796.28 0.0276 0.0028
 Saturn -91088-02-19 08:37 J -31548419.33 -31548419.14 -31548418.94 0.0277 0.0164
 Saturn -91076-08-01 21:35 J -31543872.74 -31543872.60 -31543872.46 0.0283 0.0236
 Saturn -91075-08-15 23:59 J -31543493.76 -31543493.50 -31543493.24 0.0283 0.0003
 Saturn -91074-08-29 18:56 J -31543114.86 -31543114.71 -31543114.55 0.0282 0.0222
 Uranus -91069-03-29 21:35 J -31541440.72 -31541440.60 -31541440.47 0.0148 0.0125

Uranus	-91068-04-04 07:25 J	-31541070.36	-31541070.19	-31541069.99	0.0148	0.0104
Uranus	-91067-04-09 11:01 J	-31540700.26	-31540700.04	-31540699.81	0.0148	0.0063
Uranus	-91066-04-15 01:39 J	-31540329.69	-31540329.43	-31540329.17	0.0148	0.0023
Uranus	-91065-04-19 03:49 J	-31539959.59	-31539959.34	-31539959.08	0.0148	0.0002
Uranus	-91064-04-24 20:08 J	-31539588.89	-31539588.66	-31539588.41	0.0147	0.0053
Jupiter	-91064-09-23 22:32 J	-31539436.64	-31539436.56	-31539436.46	0.0532	0.0488
Uranus	-91063-04-29 22:32 J	-31539218.78	-31539218.56	-31539218.33	0.0147	0.0076
Uranus	-91062-05-05 14:51 J	-31538848.04	-31538847.88	-31538847.71	0.0147	0.0113
Saturn	-91060-02-02 07:11 J	-31538209.42	-31538209.20	-31538208.96	0.0276	0.0108
Saturn	-91059-02-14 08:23 J	-31537832.37	-31537832.15	-31537831.91	0.0277	0.0081
Jupiter	-91052-09-28 22:47 J	-31535048.78	-31535048.55	-31535048.31	0.0535	0.0159
Neptune	-91051-03-05 17:59 J	-31534890.80	-31534890.75	-31534890.67	0.0089	0.0085
Neptune	-91050-03-07 22:32 J	-31534523.75	-31534523.56	-31534523.34	0.0089	0.0053
Neptune	-91049-03-09 17:01 J	-31534156.04	-31534155.79	-31534155.55	0.0089	0.0026
Neptune	-91048-03-11 21:35 J	-31533788.85	-31533788.60	-31533788.35	0.0089	0.0006
Neptune	-91047-03-14 14:37 J	-31533421.13	-31533420.89	-31533420.64	0.0089	0.0033
Neptune	-91046-03-16 22:32 J	-31533053.73	-31533053.56	-31533053.39	0.0089	0.0064
Jupiter	-91046-03-18 04:47 J	-31533052.43	-31533052.30	-31533052.16	0.0495	0.0396
Saturn	-91046-08-10 05:01 J	-31532907.51	-31532907.29	-31532907.06	0.0283	0.0101
Saturn	-91045-08-23 09:20 J	-31532528.33	-31532528.11	-31532527.89	0.0282	0.0128
Mars	-91043-01-04 05:59 J	-31532029.43	-31532029.25	-31532029.07	0.1696	0.0069
Jupiter	-91040-10-04 00:13 J	-31530660.68	-31530660.49	-31530660.28	0.0537	0.0242
Jupiter	-91034-03-22 18:13 J	-31528664.97	-31528664.74	-31528664.51	0.0493	0.0128
Saturn	-91031-01-28 05:15 J	-31527622.44	-31527622.28	-31527622.11	0.0276	0.0191
Saturn	-91030-02-09 10:03 J	-31527245.32	-31527245.08	-31527244.84	0.0276	0.0007
Saturn	-91029-02-21 13:11 J	-31526868.12	-31526867.95	-31526867.75	0.0277	0.0189
Uranus	-91028-10-07 09:49 J	-31526274.20	-31526274.09	-31526273.93	0.0131	0.0111
Uranus	-91027-10-11 07:11 J	-31525905.35	-31525905.20	-31525905.02	0.0131	0.0096
Uranus	-91026-10-15 15:20 J	-31525536.08	-31525535.86	-31525535.62	0.0131	0.0059
Uranus	-91025-10-18 11:30 J	-31525167.24	-31525167.02	-31525166.79	0.0131	0.0049

Uranus	-91024-10-22 18:27 J	-31524797.98	-31524797.73	-31524797.47	0.0131	0.0014
Uranus	-91023-10-26 13:39 J	-31524429.18	-31524428.93	-31524428.69	0.0131	0.0002
Jupiter	-91022-03-26 19:25 J	-31524277.90	-31524277.69	-31524277.47	0.0492	0.0187
Uranus	-91022-10-30 19:25 J	-31524059.93	-31524059.69	-31524059.43	0.0131	0.0031
Uranus	-91021-11-02 14:23 J	-31523691.11	-31523690.90	-31523690.67	0.0132	0.0056
Uranus	-91020-11-06 19:54 J	-31523321.87	-31523321.67	-31523321.45	0.0132	0.0074
Uranus	-91019-11-10 15:06 J	-31522952.99	-31522952.87	-31522952.71	0.0132	0.0108
Mars	-91018-07-11 22:03 J	-31522709.62	-31522709.58	-31522709.54	0.1846	0.1815
Uranus	-91018-11-14 20:37 J	-31522583.74	-31522583.64	-31522583.50	0.0132	0.0117
Saturn	-91017-08-03 02:37 J	-31522321.55	-31522321.39	-31522321.20	0.0283	0.0207
Saturn	-91016-08-17 03:49 J	-31521942.59	-31521942.34	-31521942.08	0.0282	0.0024
Saturn	-91015-08-31 01:54 J	-31521563.53	-31521563.42	-31521563.30	0.0282	0.0246
Saturn	-91002-01-23 14:51 J	-31517034.95	-31517034.88	-31517034.81	0.0276	0.0263
Saturn	-91001-02-04 11:30 J	-31516658.24	-31516658.02	-31516657.79	0.0276	0.0086

91ST MILLENNIUM BCE

This is a list of transits of Moon in the 91st millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-91000-02-15 18:42 J	-31516280.93	-31516280.72	-31516280.50	0.0277	0.0105		
Saturn	-90987-08-11 19:25 J	-31511355.93	-31511355.69	-31511355.45	0.0283	0.0070		
Saturn	-90986-08-25 19:25 J	-31510976.90	-31510976.69	-31510976.47	0.0282	0.0155		
Uranus	-90985-03-30 11:44 J	-31510759.09	-31510759.01	-31510758.89	0.0148	0.0135		
Uranus	-90984-04-04 20:37 J	-31510388.84	-31510388.64	-31510388.41	0.0148	0.0088		

Uranus -90983-04-10 00:56 J -31510018.68 -31510018.46 -31510018.23 0.0148 0.0060
 Uranus -90982-04-15 14:08 J -31509648.16 -31509647.91 -31509647.64 0.0148 0.0027
 Uranus -90981-04-19 16:47 J -31509278.05 -31509277.80 -31509277.55 0.0148 0.0020
 Uranus -90980-04-25 09:06 J -31508907.37 -31508907.12 -31508906.87 0.0147 0.0041
 Uranus -90979-04-30 11:15 J -31508537.23 -31508537.03 -31508536.81 0.0147 0.0087
 Uranus -90978-05-06 04:03 J -31508166.47 -31508166.33 -31508166.17 0.0147 0.0118
 Uranus -90977-05-10 07:54 J -31507796.20 -31507796.17 -31507796.13 0.0147 0.0145
 Saturn -90972-01-29 16:47 J -31506070.99 -31506070.80 -31506070.61 0.0276 0.0166
 Saturn -90971-02-10 16:18 J -31505694.06 -31505693.82 -31505693.57 0.0277 0.0019
 Saturn -90970-02-22 18:56 J -31505316.85 -31505316.71 -31505316.54 0.0277 0.0213
 Neptune -90969-09-12 16:03 J -31504748.95 -31504748.83 -31504748.66 0.0088 0.0075
 Jupiter -90969-09-27 23:01 J -31504733.75 -31504733.54 -31504733.33 0.0534 0.0215
 Neptune -90968-09-15 02:51 J -31504381.57 -31504381.38 -31504381.17 0.0088 0.0051
 Neptune -90967-09-17 14:37 J -31504014.16 -31504013.89 -31504013.63 0.0088 0.0016
 Neptune -90966-09-20 05:30 J -31503646.52 -31503646.27 -31503646.02 0.0088 0.0007
 Neptune -90965-09-21 11:44 J -31503279.22 -31503279.01 -31503278.76 0.0088 0.0043
 Mars -90964-01-06 05:30 J -31503172.43 -31503172.27 -31503172.11 0.1692 0.0568
 Neptune -90964-09-24 05:15 J -31502911.43 -31502911.28 -31502911.07 0.0088 0.0065
 Jupiter -90963-03-17 15:20 J -31502736.96 -31502736.86 -31502736.75 0.0496 0.0441
 Pluto -90963-05-28 11:44 J -31502665.04 -31502665.01 -31502664.93 0.0066 0.0065
 Pluto -90962-05-30 07:25 J -31502298.40 -31502298.19 -31502297.93 0.0067 0.0035
 Saturn -90958-08-05 10:03 J -31500770.28 -31500770.08 -31500769.88 0.0283 0.0175
 Saturn -90957-08-18 14:23 J -31500391.13 -31500390.90 -31500390.65 0.0282 0.0053
 Jupiter -90957-10-03 09:06 J -31500345.33 -31500345.12 -31500344.90 0.0536 0.0195
 Saturn -90956-09-01 15:35 J -31500011.91 -31500011.85 -31500011.78 0.0282 0.0270
 Jupiter -90951-03-21 13:39 J -31498350.14 -31498349.93 -31498349.71 0.0494 0.0177
 Uranus -90944-10-07 23:15 J -31495592.64 -31495592.53 -31495592.38 0.0131 0.0113
 Saturn -90943-01-24 18:56 J -31495483.81 -31495483.71 -31495483.58 0.0276 0.0239
 Uranus -90943-10-11 20:37 J -31495223.81 -31495223.64 -31495223.42 0.0131 0.0080
 Saturn -90942-02-05 22:18 J -31495106.79 -31495106.57 -31495106.34 0.0276 0.0061

Uranus	-90942-10-16 04:03 J	-31494854.54	-31494854.33	-31494854.10	0.0131	0.0068
Saturn	-90941-02-18 07:39 J	-31494729.38	-31494729.18	-31494728.97	0.0277	0.0129
Uranus	-90941-10-19 00:42 J	-31494485.70	-31494485.47	-31494485.22	0.0131	0.0032
Uranus	-90940-10-23 06:56 J	-31494116.46	-31494116.21	-31494115.95	0.0131	0.0021
Jupiter	-90939-03-26 05:01 J	-31493962.51	-31493962.29	-31493962.07	0.0493	0.0151
Uranus	-90939-10-27 03:20 J	-31493747.60	-31493747.36	-31493747.11	0.0131	0.0012
Uranus	-90938-10-31 08:37 J	-31493378.38	-31493378.14	-31493377.88	0.0131	0.0032
Uranus	-90937-11-03 05:01 J	-31493009.51	-31493009.29	-31493009.07	0.0132	0.0056
Uranus	-90936-11-07 09:49 J	-31492640.29	-31492640.09	-31492639.90	0.0132	0.0084
Uranus	-90935-11-11 05:30 J	-31492271.42	-31492271.27	-31492271.10	0.0132	0.0098
Uranus	-90934-11-15 09:49 J	-31491902.09	-31491902.09	-31491902.06	0.0132	0.0132
Saturn	-90929-07-30 03:35 J	-31490183.43	-31490183.35	-31490183.26	0.0283	0.0266
Saturn	-90928-08-13 08:23 J	-31489804.40	-31489804.15	-31489803.89	0.0283	0.0040
Jupiter	-90927-03-30 08:23 J	-31489575.22	-31489575.15	-31489575.08	0.0491	0.0469
Saturn	-90927-08-27 03:35 J	-31489425.53	-31489425.35	-31489425.14	0.0282	0.0182
Mars	-90918-12-31 16:32 J	-31486011.96	-31486011.81	-31486011.67	0.1711	0.0903
Saturn	-90913-01-31 23:59 J	-31484519.71	-31484519.50	-31484519.28	0.0276	0.0139
Saturn	-90912-02-11 21:49 J	-31484142.83	-31484142.59	-31484142.35	0.0277	0.0043
Saturn	-90911-02-24 05:59 J	-31483765.36	-31483765.25	-31483765.12	0.0277	0.0239
Uranus	-90901-03-30 23:30 J	-31480077.66	-31480077.52	-31480077.35	0.0148	0.0115
Uranus	-90900-04-05 06:56 J	-31479707.40	-31479707.21	-31479706.99	0.0148	0.0095
Uranus	-90899-04-10 12:27 J	-31479337.20	-31479336.98	-31479336.74	0.0148	0.0053
Saturn	-90899-08-06 23:44 J	-31479218.72	-31479218.51	-31479218.30	0.0283	0.0144
Uranus	-90898-04-16 00:56 J	-31478966.72	-31478966.46	-31478966.20	0.0148	0.0015
Saturn	-90898-08-21 05:59 J	-31478839.47	-31478839.25	-31478839.01	0.0282	0.0081
Uranus	-90897-04-20 04:18 J	-31478596.57	-31478596.32	-31478596.07	0.0148	0.0009
Uranus	-90896-04-25 19:39 J	-31478225.91	-31478225.68	-31478225.43	0.0147	0.0058
Uranus	-90895-04-30 21:49 J	-31477855.79	-31477855.59	-31477855.36	0.0147	0.0080
Uranus	-90894-05-06 14:23 J	-31477485.03	-31477484.90	-31477484.73	0.0147	0.0118
Mars	-90892-07-03 07:25 J	-31476696.36	-31476696.19	-31476696.01	0.1822	0.1219

Neptune -90886-03-07 11:30 J -31474623.14 -31474623.02 -31474622.85 0.0089 0.0074
 Jupiter -90886-09-28 03:35 J -31474418.55 -31474418.35 -31474418.15 0.0533 0.0275
 Mars -90885-01-09 01:25 J -31474315.55 -31474315.44 -31474315.33 0.1688 0.1291
 Neptune -90885-03-08 16:32 J -31474256.03 -31474255.81 -31474255.57 0.0089 0.0037
 Saturn -90884-01-26 04:32 J -31473932.45 -31473932.31 -31473932.16 0.0276 0.0212
 Neptune -90884-03-11 07:54 J -31473888.41 -31473888.17 -31473887.89 0.0089 0.0016
 Saturn -90883-02-07 11:01 J -31473555.27 -31473555.04 -31473554.80 0.0276 0.0036
 Neptune -90883-03-13 17:01 J -31473521.01 -31473520.79 -31473520.53 0.0089 0.0022
 Saturn -90882-02-19 17:15 J -31473177.98 -31473177.78 -31473177.58 0.0277 0.0154
 Neptune -90882-03-16 04:18 J -31473153.53 -31473153.32 -31473153.06 0.0089 0.0043
 Neptune -90881-03-17 18:27 J -31472785.80 -31472785.73 -31472785.60 0.0089 0.0081
 Pluto -90877-12-01 05:01 J -31471066.47 -31471066.29 -31471066.08 0.0078 0.0047
 Jupiter -90874-10-02 18:56 J -31470030.93 -31470030.71 -31470030.48 0.0535 0.0110
 Saturn -90870-08-01 16:03 J -31468631.97 -31468631.83 -31468631.67 0.0283 0.0232
 Saturn -90869-08-14 17:44 J -31468253.02 -31468252.76 -31468252.50 0.0283 0.0008
 Jupiter -90868-03-21 02:51 J -31468034.59 -31468034.38 -31468034.17 0.0495 0.0213
 Saturn -90868-08-28 13:54 J -31467874.07 -31467873.92 -31467873.74 0.0282 0.0212
 Uranus -90861-10-04 03:35 J -31465280.37 -31465280.35 -31465280.30 0.0131 0.0130
 Uranus -90860-10-08 11:30 J -31464911.18 -31464911.02 -31464910.85 0.0131 0.0101
 Uranus -90859-10-12 10:18 J -31464542.25 -31464542.07 -31464541.89 0.0131 0.0087
 Uranus -90858-10-16 16:32 J -31464173.04 -31464172.81 -31464172.56 0.0131 0.0051
 Uranus -90857-10-19 14:23 J -31463804.13 -31463803.90 -31463803.67 0.0131 0.0041
 Jupiter -90856-03-25 05:01 J -31463647.52 -31463647.29 -31463647.06 0.0493 0.0114
 Uranus -90856-10-23 19:25 J -31463434.95 -31463434.69 -31463434.43 0.0131 0.0006
 Uranus -90855-10-27 16:18 J -31463066.06 -31463065.82 -31463065.57 0.0131 0.0008
 Saturn -90854-02-02 05:30 J -31462968.49 -31462968.27 -31462968.04 0.0276 0.0114
 Uranus -90854-10-31 20:23 J -31462696.89 -31462696.65 -31462696.39 0.0131 0.0038
 Saturn -90853-02-14 08:37 J -31462591.37 -31462591.14 -31462590.91 0.0277 0.0070
 Uranus -90853-11-03 17:44 J -31462327.97 -31462327.76 -31462327.54 0.0132 0.0061
 Saturn -90852-02-25 20:51 J -31462213.69 -31462213.63 -31462213.55 0.0278 0.0265

Uranus	-90852-11-07 21:06 J	-31461958.81	-31461958.62	-31461958.40	0.0132	0.0079
Uranus	-90851-11-11 18:56 J	-31461589.83	-31461589.71	-31461589.57	0.0132	0.0110
Uranus	-90850-11-15 22:32 J	-31461220.65	-31461220.56	-31461220.44	0.0132	0.0121
Jupiter	-90844-03-29 17:01 J	-31459259.89	-31459259.79	-31459259.67	0.0491	0.0427
Saturn	-90840-08-08 18:13 J	-31457666.96	-31457666.74	-31457666.51	0.0283	0.0110
Saturn	-90839-08-22 21:49 J	-31457287.81	-31457287.59	-31457287.35	0.0282	0.0113
Mars	-90838-01-02 16:03 J	-31457155.00	-31457154.83	-31457154.65	0.1707	0.0523
Saturn	-90825-01-28 16:03 J	-31452380.99	-31452380.83	-31452380.65	0.0276	0.0187
Saturn	-90824-02-08 19:11 J	-31452003.94	-31452003.70	-31452003.45	0.0277	0.0008
Saturn	-90823-02-20 21:06 J	-31451626.79	-31451626.62	-31451626.42	0.0277	0.0181
Uranus	-90818-03-27 03:20 J	-31449766.40	-31449766.36	-31449766.27	0.0147	0.0143
Uranus	-90817-03-31 11:44 J	-31449396.13	-31449396.01	-31449395.86	0.0148	0.0125
Uranus	-90816-04-05 17:30 J	-31449025.98	-31449025.77	-31449025.53	0.0148	0.0078
Uranus	-90815-04-10 23:59 J	-31448655.72	-31448655.50	-31448655.26	0.0148	0.0052
Uranus	-90814-04-16 11:01 J	-31448285.30	-31448285.04	-31448284.78	0.0148	0.0018
Uranus	-90813-04-20 15:06 J	-31447915.11	-31447914.87	-31447914.62	0.0148	0.0027
Mars	-90813-07-07 06:13 J	-31447837.44	-31447837.24	-31447837.03	0.1830	0.0288
Uranus	-90812-04-26 05:59 J	-31447544.49	-31447544.25	-31447543.99	0.0147	0.0046
Uranus	-90811-05-01 08:51 J	-31447174.32	-31447174.13	-31447173.92	0.0147	0.0092
Saturn	-90811-08-03 01:54 J	-31447080.60	-31447080.42	-31447080.22	0.0283	0.0197
Uranus	-90810-05-07 01:39 J	-31446803.55	-31446803.43	-31446803.26	0.0147	0.0122
Saturn	-90810-08-17 05:01 J	-31446701.54	-31446701.29	-31446701.04	0.0283	0.0026
Saturn	-90809-08-30 05:01 J	-31446322.40	-31446322.29	-31446322.16	0.0282	0.0241
Neptune	-90804-09-14 06:56 J	-31444481.37	-31444481.21	-31444481.02	0.0088	0.0067
Neptune	-90803-09-16 23:15 J	-31444113.75	-31444113.53	-31444113.27	0.0088	0.0032
Jupiter	-90803-09-26 14:37 J	-31444104.06	-31444103.89	-31444103.72	0.0533	0.0357
Neptune	-90802-09-19 05:44 J	-31443746.52	-31443746.26	-31443745.99	0.0088	0.0009
Neptune	-90801-09-21 00:27 J	-31443378.71	-31443378.48	-31443378.22	0.0088	0.0028
Neptune	-90800-09-23 05:30 J	-31443011.48	-31443011.27	-31443011.06	0.0088	0.0050
Neptune	-90799-09-25 22:47 J	-31442643.61	-31442643.55	-31442643.46	0.0088	0.0085

Saturn	-90796-01-22 15:35 J	-31441793.93	-31441793.85	-31441793.78	0.0275	0.0261
Saturn	-90795-02-03 13:54 J	-31441417.14	-31441416.92	-31441416.70	0.0276	0.0086
Saturn	-90794-02-15 22:03 J	-31441039.79	-31441039.58	-31441039.36	0.0277	0.0097
Jupiter	-90791-10-02 03:35 J	-31439715.58	-31439715.35	-31439715.12	0.0535	0.0062
Jupiter	-90785-03-20 01:54 J	-31437719.62	-31437719.42	-31437719.21	0.0495	0.0253
Saturn	-90781-08-10 09:49 J	-31436115.33	-31436115.09	-31436114.84	0.0283	0.0077
Saturn	-90780-08-24 08:37 J	-31435736.36	-31435736.14	-31435735.91	0.0282	0.0142
Jupiter	-90779-10-07 03:49 J	-31435327.44	-31435327.34	-31435327.24	0.0537	0.0488
Uranus	-90777-10-04 16:47 J	-31434598.87	-31434598.80	-31434598.70	0.0131	0.0123
Uranus	-90776-10-08 22:47 J	-31434229.68	-31434229.55	-31434229.36	0.0131	0.0104
Uranus	-90775-10-12 22:47 J	-31433860.75	-31433860.55	-31433860.34	0.0131	0.0071
Uranus	-90774-10-17 03:49 J	-31433491.56	-31433491.34	-31433491.10	0.0131	0.0060
Jupiter	-90773-03-24 11:15 J	-31433332.26	-31433332.03	-31433331.81	0.0493	0.0070
Uranus	-90773-10-20 02:51 J	-31433122.61	-31433122.38	-31433122.13	0.0131	0.0025
Uranus	-90772-10-24 07:11 J	-31432753.46	-31432753.20	-31432752.94	0.0131	0.0014
Uranus	-90771-10-28 05:44 J	-31432384.50	-31432384.26	-31432384.02	0.0131	0.0020
Uranus	-90770-11-01 09:20 J	-31432015.36	-31432015.11	-31432014.86	0.0131	0.0038
Uranus	-90769-11-04 07:25 J	-31431646.39	-31431646.19	-31431645.97	0.0132	0.0062
Uranus	-90768-11-08 10:18 J	-31431277.26	-31431277.07	-31431276.88	0.0132	0.0088
Uranus	-90767-11-12 08:37 J	-31430908.28	-31430908.14	-31430907.98	0.0132	0.0102
Saturn	-90766-01-30 00:27 J	-31430829.67	-31430829.48	-31430829.28	0.0276	0.0160
Saturn	-90765-02-10 22:18 J	-31430452.82	-31430452.57	-31430452.32	0.0277	0.0017
Saturn	-90764-02-22 03:06 J	-31430075.52	-31430075.37	-31430075.20	0.0277	0.0206
Jupiter	-90761-03-28 17:30 J	-31428944.93	-31428944.77	-31428944.61	0.0492	0.0374
Mars	-90759-01-05 00:13 J	-31428297.67	-31428297.49	-31428297.30	0.1702	0.0472
Saturn	-90752-08-04 15:20 J	-31425529.06	-31425528.86	-31425528.66	0.0283	0.0165
Saturn	-90751-08-18 21:20 J	-31425149.84	-31425149.61	-31425149.37	0.0283	0.0058
Saturn	-90750-09-01 22:03 J	-31424770.63	-31424770.58	-31424770.50	0.0282	0.0270
Saturn	-90737-01-24 20:51 J	-31420242.73	-31420242.63	-31420242.50	0.0275	0.0239
Saturn	-90736-02-05 00:42 J	-31419865.69	-31419865.47	-31419865.24	0.0276	0.0063

Saturn -90735-02-17 07:54 J -31419488.38 -31419488.17 -31419487.95 0.0277 0.0122
 Mars -90734-07-11 09:49 J -31418979.10 -31418979.09 -31418979.08 0.1837 0.1833
 Uranus -90733-03-31 22:32 J -31418714.71 -31418714.56 -31418714.37 0.0147 0.0106
 Uranus -90732-04-06 03:20 J -31418344.57 -31418344.36 -31418344.14 0.0148 0.0086
 Uranus -90731-04-11 11:01 J -31417974.27 -31417974.04 -31417973.79 0.0148 0.0044
 Uranus -90730-04-16 20:23 J -31417603.91 -31417603.65 -31417603.38 0.0148 0.0010
 Uranus -90729-04-21 01:54 J -31417233.67 -31417233.42 -31417233.17 0.0147 0.0016
 Uranus -90728-04-26 15:20 J -31416863.08 -31416862.86 -31416862.61 0.0147 0.0063
 Uranus -90727-05-01 18:27 J -31416492.92 -31416492.73 -31416492.51 0.0147 0.0084
 Uranus -90726-05-07 11:01 J -31416122.17 -31416122.04 -31416121.88 0.0147 0.0122
 Saturn -90723-07-29 15:35 J -31414942.92 -31414942.85 -31414942.76 0.0283 0.0268
 Neptune -90722-03-06 13:54 J -31414722.94 -31414722.92 -31414722.84 0.0089 0.0087
 Saturn -90722-08-12 19:11 J -31414563.96 -31414563.70 -31414563.44 0.0282 0.0046
 Neptune -90721-03-08 04:18 J -31414355.51 -31414355.32 -31414355.09 0.0089 0.0054
 Saturn -90721-08-25 16:47 J -31414185.00 -31414184.80 -31414184.60 0.0282 0.0171
 Neptune -90720-03-10 14:08 J -31413988.13 -31413987.91 -31413987.66 0.0089 0.0029
 Jupiter -90720-09-26 01:54 J -31413788.57 -31413788.42 -31413788.26 0.0532 0.0401
 Neptune -90719-03-12 23:30 J -31413620.78 -31413620.52 -31413620.25 0.0089 0.0005
 Neptune -90718-03-15 14:23 J -31413253.12 -31413252.90 -31413252.65 0.0089 0.0031
 Neptune -90717-03-16 19:54 J -31412885.83 -31412885.67 -31412885.47 0.0089 0.0063
 Neptune -90716-03-19 14:37 J -31412517.91 -31412517.89 -31412517.85 0.0089 0.0088
 Pluto -90715-05-30 08:37 J -31412081.30 -31412081.14 -31412080.93 0.0066 0.0049
 Pluto -90714-05-31 23:59 J -31411714.66 -31411714.50 -31411714.27 0.0067 0.0045
 Mars -90713-12-29 15:06 J -31411136.95 -31411136.87 -31411136.78 0.1723 0.1547
 Jupiter -90708-09-30 22:32 J -31409400.80 -31409400.56 -31409400.32 0.0534 0.0009
 Saturn -90707-01-31 01:39 J -31409278.64 -31409278.43 -31409278.21 0.0276 0.0140
 Saturn -90706-02-12 01:25 J -31408901.68 -31408901.44 -31408901.20 0.0277 0.0040
 Saturn -90705-02-24 12:27 J -31408524.10 -31408523.98 -31408523.85 0.0278 0.0232
 Jupiter -90702-03-20 08:23 J -31407404.32 -31407404.15 -31407403.96 0.0496 0.0299
 Jupiter -90696-10-06 00:13 J -31405012.63 -31405012.49 -31405012.34 0.0536 0.0407

Saturn	-90693-08-06 06:56 J	-31403977.42	-31403977.21	-31403976.99	0.0283	0.0136
Uranus	-90693-10-05 04:47 J	-31403917.38	-31403917.30	-31403917.18	0.0131	0.0120
Saturn	-90692-08-20 13:25 J	-31403598.17	-31403597.94	-31403597.70	0.0283	0.0087
Uranus	-90692-10-09 10:03 J	-31403548.25	-31403548.08	-31403547.88	0.0131	0.0093
Uranus	-90691-10-13 11:15 J	-31403179.21	-31403179.03	-31403178.82	0.0131	0.0078
Jupiter	-90690-03-24 16:47 J	-31403017.04	-31403016.80	-31403016.55	0.0494	0.0036
Uranus	-90690-10-17 15:35 J	-31402810.09	-31402809.85	-31402809.60	0.0131	0.0044
Uranus	-90689-10-20 15:35 J	-31402441.08	-31402440.85	-31402440.61	0.0131	0.0035
Uranus	-90688-10-24 18:27 J	-31402071.99	-31402071.73	-31402071.47	0.0131	0.0001
Uranus	-90687-10-28 17:59 J	-31401702.99	-31401702.75	-31401702.50	0.0131	0.0015
Uranus	-90686-11-01 20:08 J	-31401333.90	-31401333.66	-31401333.41	0.0131	0.0044
Uranus	-90685-11-04 19:39 J	-31400964.87	-31400964.68	-31400964.45	0.0132	0.0066
Uranus	-90684-11-08 21:20 J	-31400595.79	-31400595.61	-31400595.39	0.0132	0.0084
Uranus	-90683-11-12 21:35 J	-31400226.70	-31400226.60	-31400226.46	0.0132	0.0114
Uranus	-90682-11-16 23:30 J	-31399857.60	-31399857.52	-31399857.42	0.0132	0.0124
Mars	-90680-01-07 11:01 J	-31399440.20	-31399440.04	-31399439.89	0.1697	0.1024
Saturn	-90678-01-26 06:42 J	-31398691.36	-31398691.22	-31398691.08	0.0275	0.0216
Jupiter	-90678-03-29 00:13 J	-31398629.65	-31398629.49	-31398629.33	0.0492	0.0339
Saturn	-90677-02-07 09:49 J	-31398314.33	-31398314.09	-31398313.85	0.0276	0.0040
Saturn	-90676-02-18 11:15 J	-31397937.23	-31397937.03	-31397936.81	0.0277	0.0146
Saturn	-90664-07-30 23:30 J	-31393391.65	-31393391.52	-31393391.37	0.0283	0.0238
Saturn	-90663-08-14 02:51 J	-31393012.63	-31393012.38	-31393012.13	0.0282	0.0017
Saturn	-90662-08-28 03:35 J	-31392633.52	-31392633.35	-31392633.17	0.0282	0.0198
Uranus	-90650-03-28 00:27 J	-31388403.58	-31388403.48	-31388403.37	0.0147	0.0134
Uranus	-90649-04-01 10:18 J	-31388033.21	-31388033.07	-31388032.90	0.0148	0.0116
Saturn	-90648-02-01 01:54 J	-31387727.63	-31387727.42	-31387727.20	0.0276	0.0120
Uranus	-90648-04-06 13:11 J	-31387663.17	-31387662.95	-31387662.70	0.0148	0.0069
Saturn	-90647-02-13 07:25 J	-31387350.41	-31387350.19	-31387349.96	0.0277	0.0063
Uranus	-90647-04-11 22:18 J	-31387292.81	-31387292.57	-31387292.34	0.0148	0.0045
Saturn	-90646-02-25 19:39 J	-31386972.76	-31386972.68	-31386972.58	0.0278	0.0255

Uranus -90646-04-17 05:59 J -31386922.51 -31386922.25 -31386921.98 0.0148 0.0010
 Uranus -90645-04-21 12:42 J -31386552.21 -31386551.97 -31386551.72 0.0147 0.0032
 Uranus -90644-04-27 01:39 J -31386181.68 -31386181.43 -31386181.18 0.0147 0.0051
 Uranus -90643-05-02 05:44 J -31385811.44 -31385811.26 -31385811.06 0.0147 0.0097
 Uranus -90642-05-07 21:49 J -31385440.71 -31385440.59 -31385440.44 0.0147 0.0124
 Neptune -90640-09-13 18:27 J -31384580.84 -31384580.73 -31384580.58 0.0088 0.0076
 Neptune -90639-09-15 23:44 J -31384213.70 -31384213.51 -31384213.27 0.0088 0.0052
 Neptune -90638-09-18 19:25 J -31383845.94 -31383845.69 -31383845.42 0.0088 0.0017
 Neptune -90637-09-20 00:56 J -31383478.71 -31383478.46 -31383478.20 0.0088 0.0007
 Jupiter -90637-09-24 13:54 J -31383474.02 -31383473.92 -31383473.82 0.0531 0.0475
 Neptune -90636-09-22 17:44 J -31383110.98 -31383110.76 -31383110.51 0.0088 0.0042
 Neptune -90635-09-25 02:08 J -31382743.58 -31382743.41 -31382743.24 0.0088 0.0064
 Saturn -90634-08-08 20:08 J -31382425.88 -31382425.66 -31382425.42 0.0283 0.0106
 Mars -90633-01-02 01:11 J -31382279.62 -31382279.45 -31382279.27 0.1717 0.0384
 Saturn -90633-08-21 23:01 J -31382046.77 -31382046.54 -31382046.30 0.0283 0.0114
 Pluto -90629-12-03 05:01 J -31380482.51 -31380482.29 -31380482.03 0.0078 0.0029
 Jupiter -90625-09-29 22:18 J -31379085.80 -31379085.57 -31379085.35 0.0534 0.0060
 Saturn -90619-01-27 13:39 J -31377140.09 -31377139.93 -31377139.76 0.0275 0.0196
 Jupiter -90619-03-19 16:32 J -31377089.00 -31377088.81 -31377088.63 0.0496 0.0323
 Saturn -90618-02-08 11:15 J -31376763.27 -31376763.03 -31376762.78 0.0276 0.0019
 Saturn -90617-02-20 11:44 J -31376386.20 -31376386.01 -31376385.81 0.0277 0.0167
 Jupiter -90613-10-05 02:37 J -31374697.57 -31374697.39 -31374697.21 0.0536 0.0351
 Uranus -90609-10-05 16:47 J -31373235.90 -31373235.80 -31373235.66 0.0131 0.0115
 Mars -90608-07-02 10:18 J -31372966.21 -31372966.07 -31372965.93 0.1812 0.1222
 Uranus -90608-10-09 20:23 J -31372866.81 -31372866.65 -31372866.44 0.0131 0.0095
 Jupiter -90607-03-23 23:44 J -31372701.73 -31372701.51 -31372701.28 0.0494 0.0008
 Uranus -90607-10-13 23:15 J -31372497.74 -31372497.53 -31372497.32 0.0131 0.0065
 Uranus -90606-10-18 01:54 J -31372128.65 -31372128.42 -31372128.17 0.0131 0.0053
 Saturn -90605-08-01 05:59 J -31371840.41 -31371840.25 -31371840.06 0.0283 0.0210
 Uranus -90605-10-21 03:49 J -31371759.58 -31371759.34 -31371759.10 0.0131 0.0018

Saturn	-90604-08-15 13:39 J	-31371461.18	-31371460.93	-31371460.69	0.0283	0.0010
Uranus	-90604-10-25 05:59 J	-31371390.51	-31371390.25	-31371389.99	0.0131	0.0008
Saturn	-90603-08-29 17:01 J	-31371081.94	-31371081.79	-31371081.64	0.0282	0.0222
Uranus	-90603-10-29 06:56 J	-31371021.44	-31371021.21	-31371020.96	0.0131	0.0027
Uranus	-90602-11-02 08:08 J	-31370652.40	-31370652.16	-31370651.90	0.0131	0.0043
Uranus	-90601-11-05 09:06 J	-31370283.32	-31370283.12	-31370282.91	0.0132	0.0067
Uranus	-90600-11-09 09:20 J	-31369914.28	-31369914.11	-31369913.91	0.0132	0.0091
Uranus	-90599-11-13 10:18 J	-31369545.19	-31369545.07	-31369544.90	0.0132	0.0106
Jupiter	-90595-03-28 10:32 J	-31368314.25	-31368314.06	-31368313.86	0.0493	0.0292
Saturn	-90590-01-22 05:15 J	-31366553.31	-31366553.28	-31366553.22	0.0275	0.0269
Saturn	-90589-02-03 06:27 J	-31366176.44	-31366176.23	-31366176.01	0.0276	0.0101
Saturn	-90588-02-14 13:25 J	-31365799.16	-31365798.94	-31365798.71	0.0277	0.0083
Saturn	-90587-02-26 20:37 J	-31365421.67	-31365421.64	-31365421.61	0.0278	0.0275
Saturn	-90575-08-10 02:08 J	-31360874.65	-31360874.41	-31360874.16	0.0284	0.0081
Saturn	-90574-08-24 01:25 J	-31360495.66	-31360495.44	-31360495.20	0.0283	0.0136
Uranus	-90566-03-28 11:15 J	-31357722.11	-31357722.03	-31357721.95	0.0147	0.0139
Uranus	-90565-04-01 22:03 J	-31357351.75	-31357351.58	-31357351.38	0.0147	0.0097
Uranus	-90564-04-06 23:44 J	-31356981.72	-31356981.51	-31356981.27	0.0148	0.0079
Uranus	-90563-04-12 10:03 J	-31356611.32	-31356611.08	-31356610.84	0.0148	0.0035
Uranus	-90562-04-17 16:18 J	-31356241.08	-31356240.82	-31356240.55	0.0147	0.0005
Uranus	-90561-04-22 00:27 J	-31355870.73	-31355870.48	-31355870.24	0.0147	0.0022
Saturn	-90560-01-28 13:25 J	-31355589.11	-31355588.94	-31355588.74	0.0275	0.0175
Uranus	-90560-04-27 11:30 J	-31355500.25	-31355500.02	-31355499.78	0.0147	0.0068
Saturn	-90559-02-09 09:06 J	-31355212.36	-31355212.12	-31355211.88	0.0276	0.0001
Uranus	-90559-05-02 16:03 J	-31355130.01	-31355129.83	-31355129.61	0.0147	0.0088
Saturn	-90558-02-21 14:51 J	-31354835.05	-31354834.88	-31354834.71	0.0277	0.0189
Uranus	-90558-05-08 07:25 J	-31354759.31	-31354759.19	-31354759.04	0.0147	0.0126
Neptune	-90557-03-07 11:44 J	-31354455.12	-31354455.01	-31354454.84	0.0089	0.0074
Neptune	-90556-03-09 20:23 J	-31354087.87	-31354087.65	-31354087.39	0.0089	0.0037
Neptune	-90555-03-12 12:27 J	-31353720.21	-31353719.98	-31353719.72	0.0089	0.0016

Mars -90554-01-04 02:23 J -31353422.57 -31353422.40 -31353422.23 0.1712 0.0021
 Neptune -90554-03-14 17:01 J -31353353.02 -31353352.79 -31353352.52 0.0089 0.0022
 Jupiter -90554-09-24 22:32 J -31353158.60 -31353158.56 -31353158.52 0.0531 0.0521
 Neptune -90553-03-16 11:44 J -31352985.24 -31352985.01 -31352984.78 0.0089 0.0041
 Neptune -90552-03-18 16:03 J -31352617.93 -31352617.83 -31352617.70 0.0089 0.0079
 Saturn -90546-08-03 15:06 J -31350289.05 -31350288.87 -31350288.68 0.0283 0.0184
 Saturn -90545-08-17 00:56 J -31349909.70 -31349909.46 -31349909.22 0.0283 0.0035
 Saturn -90544-08-31 02:08 J -31349530.53 -31349530.41 -31349530.28 0.0282 0.0244
 Jupiter -90542-09-30 02:51 J -31348770.61 -31348770.38 -31348770.13 0.0533 0.0092
 Jupiter -90536-03-18 22:03 J -31346773.74 -31346773.58 -31346773.43 0.0496 0.0356
 Saturn -90531-01-23 07:39 J -31345002.26 -31345002.18 -31345002.07 0.0275 0.0250
 Saturn -90530-02-04 11:01 J -31344625.26 -31344625.04 -31344624.81 0.0276 0.0083
 Jupiter -90530-10-05 06:13 J -31344382.42 -31344382.24 -31344382.05 0.0535 0.0308
 Saturn -90529-02-16 12:56 J -31344248.18 -31344247.96 -31344247.73 0.0277 0.0102
 Mars -90529-07-05 22:18 J -31344107.78 -31344107.57 -31344107.36 0.1820 0.0508
 Uranus -90525-10-06 03:49 J -31342554.45 -31342554.34 -31342554.18 0.0132 0.0111
 Jupiter -90524-03-23 11:01 J -31342386.28 -31342386.04 -31342385.80 0.0495 0.0023
 Uranus -90524-10-10 06:56 J -31342185.40 -31342185.21 -31342185.00 0.0131 0.0086
 Uranus -90523-10-14 10:47 J -31341816.25 -31341816.05 -31341815.84 0.0131 0.0071
 Uranus -90522-10-18 12:13 J -31341447.23 -31341446.99 -31341446.73 0.0131 0.0038
 Uranus -90521-10-21 15:06 J -31341078.11 -31341077.87 -31341077.63 0.0131 0.0028
 Uranus -90520-10-25 15:35 J -31340709.11 -31340708.85 -31340708.59 0.0131 0.0007
 Uranus -90519-10-29 18:13 J -31340339.98 -31340339.74 -31340339.50 0.0131 0.0019
 Uranus -90518-11-02 17:59 J -31339970.98 -31339970.75 -31339970.50 0.0131 0.0049
 Saturn -90517-07-27 20:51 J -31339702.68 -31339702.63 -31339702.55 0.0284 0.0275
 Uranus -90517-11-05 20:37 J -31339601.83 -31339601.64 -31339601.42 0.0132 0.0069
 Saturn -90516-08-11 02:37 J -31339323.64 -31339323.39 -31339323.13 0.0284 0.0056
 Uranus -90516-11-09 20:23 J -31339232.84 -31339232.65 -31339232.45 0.0132 0.0087
 Saturn -90515-08-25 04:32 J -31338944.50 -31338944.31 -31338944.09 0.0283 0.0159
 Uranus -90515-11-13 22:47 J -31338863.64 -31338863.55 -31338863.42 0.0132 0.0116

Uranus -90514-11-17 21:49 J -31338494.65 -31338494.59 -31338494.50 0.0132 0.0126
 Jupiter -90512-03-27 13:25 J -31337999.13 -31337998.94 -31337998.74 0.0493 0.0258
 Mars -90508-12-28 05:01 J -31336262.37 -31336262.29 -31336262.21 0.1734 0.1520
 Saturn -90501-01-30 10:32 J -31334038.25 -31334038.06 -31334037.85 0.0275 0.0159
 Saturn -90500-02-10 11:15 J -31333661.26 -31333661.03 -31333660.80 0.0276 0.0018
 Saturn -90499-02-22 20:08 J -31333283.80 -31333283.66 -31333283.50 0.0277 0.0209
 Saturn -90487-08-05 00:13 J -31328737.69 -31328737.49 -31328737.28 0.0284 0.0158
 Saturn -90486-08-19 07:11 J -31328358.45 -31328358.20 -31328357.95 0.0283 0.0059
 Saturn -90485-09-01 03:35 J -31327979.43 -31327979.35 -31327979.24 0.0282 0.0262
 Uranus -90482-03-28 21:49 J -31327040.71 -31327040.59 -31327040.44 0.0147 0.0126
 Uranus -90481-04-02 09:20 J -31326670.27 -31326670.11 -31326669.93 0.0147 0.0107
 Uranus -90480-04-07 09:49 J -31326300.32 -31326300.09 -31326299.85 0.0147 0.0060
 Uranus -90479-04-12 20:51 J -31325929.87 -31325929.63 -31325929.39 0.0147 0.0038
 Uranus -90478-04-18 01:54 J -31325559.68 -31325559.42 -31325559.15 0.0147 0.0004
 Uranus -90477-04-22 11:15 J -31325189.26 -31325189.03 -31325188.78 0.0147 0.0037
 Uranus -90476-04-27 21:20 J -31324818.85 -31324818.61 -31324818.36 0.0147 0.0055
 Neptune -90476-09-12 19:11 J -31324680.73 -31324680.70 -31324680.63 0.0088 0.0087
 Mars -90475-01-06 00:42 J -31324565.62 -31324565.47 -31324565.32 0.1708 0.0876
 Uranus -90475-05-03 03:49 J -31324448.51 -31324448.34 -31324448.15 0.0147 0.0101
 Neptune -90475-09-15 14:23 J -31324313.05 -31324312.90 -31324312.70 0.0088 0.0066
 Uranus -90474-05-08 18:13 J -31324077.87 -31324077.74 -31324077.60 0.0147 0.0126
 Neptune -90474-09-17 20:51 J -31323945.86 -31323945.63 -31323945.38 0.0088 0.0030
 Neptune -90473-09-19 13:39 J -31323578.20 -31323577.93 -31323577.66 0.0088 0.0008
 Saturn -90472-01-24 12:13 J -31323451.11 -31323450.99 -31323450.87 0.0275 0.0232
 Neptune -90472-09-21 23:30 J -31323210.75 -31323210.52 -31323210.28 0.0088 0.0028
 Saturn -90471-02-05 10:03 J -31323074.32 -31323074.08 -31323073.84 0.0276 0.0063
 Neptune -90471-09-24 11:01 J -31322843.25 -31322843.04 -31322842.80 0.0088 0.0050
 Saturn -90470-02-17 07:39 J -31322697.39 -31322697.18 -31322696.95 0.0276 0.0121
 Neptune -90470-09-27 00:56 J -31322475.50 -31322475.46 -31322475.38 0.0088 0.0085
 Pluto -90467-06-01 02:08 J -31321497.62 -31321497.41 -31321497.15 0.0067 0.0028

Pluto -90466-06-02 18:13 J -31321130.83 -31321130.74 -31321130.61 0.0067 0.0061
 Jupiter -90459-09-29 02:08 J -31318455.63 -31318455.41 -31318455.19 0.0532 0.0146
 Saturn -90458-07-29 18:42 J -31318151.83 -31318151.72 -31318151.60 0.0284 0.0252
 Saturn -90457-08-12 04:03 J -31317772.57 -31317772.33 -31317772.08 0.0284 0.0035
 Saturn -90456-08-26 10:32 J -31317393.23 -31317393.06 -31317392.86 0.0283 0.0178
 Jupiter -90453-03-18 11:59 J -31316458.16 -31316458.00 -31316457.84 0.0497 0.0371
 Mars -90450-07-10 23:44 J -31315248.56 -31315248.51 -31315248.46 0.1828 0.1776
 Jupiter -90447-10-04 09:20 J -31314067.32 -31314067.11 -31314066.89 0.0534 0.0240
 Saturn -90442-01-31 11:30 J -31312487.22 -31312487.02 -31312486.82 0.0275 0.0139
 Uranus -90442-10-03 08:51 J -31312242.20 -31312242.13 -31312242.03 0.0132 0.0124
 Saturn -90441-02-12 16:03 J -31312110.06 -31312109.83 -31312109.60 0.0275 0.0038
 Jupiter -90441-03-22 15:06 J -31312071.10 -31312070.87 -31312070.64 0.0495 0.0045
 Uranus -90441-10-06 15:06 J -31311873.00 -31311872.87 -31311872.72 0.0132 0.0107
 Saturn -90440-02-23 22:03 J -31311732.72 -31311732.58 -31311732.44 0.0276 0.0227
 Uranus -90440-10-10 16:18 J -31311504.00 -31311503.82 -31311503.60 0.0131 0.0086
 Uranus -90439-10-14 21:49 J -31311134.80 -31311134.59 -31311134.36 0.0131 0.0059
 Uranus -90438-10-18 22:18 J -31310765.81 -31310765.57 -31310765.32 0.0131 0.0046
 Uranus -90437-10-22 03:06 J -31310396.61 -31310396.37 -31310396.13 0.0131 0.0012
 Uranus -90436-10-26 02:37 J -31310027.65 -31310027.39 -31310027.13 0.0131 0.0003
 Uranus -90435-10-30 06:27 J -31309658.46 -31309658.23 -31309657.98 0.0131 0.0032
 Uranus -90434-11-03 05:15 J -31309289.52 -31309289.28 -31309289.03 0.0132 0.0046
 Uranus -90433-11-06 08:51 J -31308920.33 -31308920.13 -31308919.92 0.0132 0.0071
 Uranus -90432-11-10 06:27 J -31308551.40 -31308551.23 -31308551.03 0.0132 0.0093
 Uranus -90431-11-14 10:18 J -31308182.20 -31308182.07 -31308181.92 0.0132 0.0108
 Jupiter -90429-03-27 07:54 J -31307683.37 -31307683.17 -31307682.96 0.0494 0.0229
 Mars -90429-12-30 07:11 J -31307405.33 -31307405.20 -31307405.06 0.1729 0.1177
 Saturn -90428-08-06 04:32 J -31307186.54 -31307186.31 -31307186.09 0.0284 0.0134
 Saturn -90427-08-20 07:11 J -31306807.44 -31306807.20 -31306806.94 0.0283 0.0079
 Saturn -90426-09-03 03:35 J -31306428.37 -31306428.35 -31306428.31 0.0282 0.0279
 Jupiter -90417-03-31 08:23 J -31303296.21 -31303296.15 -31303296.09 0.0492 0.0475

Saturn -90413-01-26 12:27 J -31301900.12 -31301899.98 -31301899.82 0.0275 0.0214
 Saturn -90412-02-06 05:15 J -31301523.52 -31301523.28 -31301523.03 0.0275 0.0046
 Saturn -90411-02-18 06:42 J -31301146.42 -31301146.22 -31301146.01 0.0276 0.0142
 Saturn -90399-07-30 20:51 J -31296600.77 -31296600.63 -31296600.49 0.0285 0.0233
 Uranus -90398-03-29 07:54 J -31296359.27 -31296359.17 -31296359.03 0.0147 0.0130
 Saturn -90398-08-14 09:35 J -31296221.35 -31296221.10 -31296220.86 0.0284 0.0016
 Uranus -90397-04-02 20:08 J -31295988.85 -31295988.66 -31295988.45 0.0147 0.0088
 Saturn -90397-08-27 15:49 J -31295842.01 -31295841.84 -31295841.65 0.0283 0.0196
 Mars -90396-01-08 03:20 J -31295708.44 -31295708.36 -31295708.28 0.1703 0.1515
 Uranus -90396-04-07 19:54 J -31295618.89 -31295618.67 -31295618.43 0.0147 0.0070
 Uranus -90395-04-13 08:23 J -31295248.40 -31295248.15 -31295247.91 0.0147 0.0027
 Uranus -90394-04-18 11:59 J -31294878.26 -31294878.00 -31294877.73 0.0147 0.0002
 Neptune -90393-03-06 17:59 J -31294554.78 -31294554.75 -31294554.68 0.0089 0.0087
 Uranus -90393-04-22 22:32 J -31294507.80 -31294507.56 -31294507.31 0.0147 0.0028
 Neptune -90392-03-09 10:32 J -31294187.24 -31294187.06 -31294186.84 0.0089 0.0053
 Uranus -90392-04-28 06:27 J -31294137.45 -31294137.23 -31294136.98 0.0147 0.0073
 Neptune -90391-03-11 14:51 J -31293820.11 -31293819.88 -31293819.63 0.0089 0.0029
 Uranus -90391-05-03 14:08 J -31293767.10 -31293766.91 -31293766.71 0.0147 0.0091
 Neptune -90390-03-14 09:06 J -31293452.37 -31293452.12 -31293451.86 0.0089 0.0005
 Uranus -90390-05-09 02:37 J -31293396.50 -31293396.39 -31293396.25 0.0147 0.0130
 Neptune -90389-03-15 13:39 J -31293085.15 -31293084.93 -31293084.67 0.0089 0.0031
 Neptune -90388-03-18 05:44 J -31292717.42 -31292717.26 -31292717.05 0.0089 0.0063
 Neptune -90387-03-20 15:06 J -31292349.91 -31292349.87 -31292349.82 0.0089 0.0088
 Saturn -90383-02-01 16:18 J -31290936.03 -31290935.82 -31290935.61 0.0274 0.0122
 Saturn -90382-02-13 17:44 J -31290559.00 -31290558.76 -31290558.52 0.0275 0.0056
 Saturn -90381-02-25 17:59 J -31290181.85 -31290181.75 -31290181.63 0.0276 0.0248
 Pluto -90381-12-05 01:25 J -31289898.68 -31289898.44 -31289898.20 0.0078 0.0001
 Jupiter -90376-09-28 09:35 J -31288140.33 -31288140.10 -31288139.88 0.0532 0.0187
 Jupiter -90370-03-18 16:32 J -31286142.95 -31286142.81 -31286142.66 0.0498 0.0387
 Saturn -90369-08-07 01:54 J -31285635.66 -31285635.42 -31285635.18 0.0284 0.0114

Saturn -90368-08-21 05:59 J -31285256.48 -31285256.25 -31285256.01 0.0283 0.0099
 Jupiter -90364-10-03 10:03 J -31283752.30 -31283752.08 -31283751.87 0.0534 0.0198
 Jupiter -90358-03-23 07:54 J -31281755.39 -31281755.17 -31281754.94 0.0496 0.0072
 Uranus -90358-10-03 17:59 J -31281560.81 -31281560.75 -31281560.68 0.0132 0.0127
 Uranus -90357-10-07 01:39 J -31281191.57 -31281191.43 -31281191.26 0.0132 0.0101
 Uranus -90356-10-11 02:08 J -31280822.61 -31280822.41 -31280822.19 0.0131 0.0079
 Uranus -90355-10-15 08:23 J -31280453.35 -31280453.15 -31280452.92 0.0131 0.0064
 Saturn -90354-01-27 08:37 J -31280349.30 -31280349.14 -31280348.97 0.0275 0.0199
 Uranus -90354-10-19 07:25 J -31280084.43 -31280084.19 -31280083.92 0.0131 0.0033
 Saturn -90353-02-08 04:47 J -31279972.54 -31279972.30 -31279972.07 0.0275 0.0027
 Uranus -90353-10-22 13:11 J -31279715.18 -31279714.95 -31279714.70 0.0131 0.0022
 Saturn -90352-02-19 11:01 J -31279595.22 -31279595.04 -31279594.85 0.0276 0.0163
 Jupiter -90352-10-08 23:01 J -31279363.56 -31279363.54 -31279363.52 0.0536 0.0533
 Uranus -90352-10-26 11:44 J -31279346.27 -31279346.01 -31279345.76 0.0131 0.0014
 Uranus -90351-10-30 16:47 J -31278977.03 -31278976.80 -31278976.55 0.0131 0.0025
 Uranus -90350-11-03 14:23 J -31278608.12 -31278607.90 -31278607.65 0.0132 0.0055
 Mars -90349-01-02 16:03 J -31278548.02 -31278547.83 -31278547.63 0.1724 0.0062
 Uranus -90349-11-06 19:39 J -31278238.87 -31278238.68 -31278238.47 0.0132 0.0071
 Uranus -90348-11-10 16:32 J -31277869.98 -31277869.81 -31277869.61 0.0132 0.0091
 Uranus -90347-11-14 21:49 J -31277500.70 -31277500.59 -31277500.48 0.0132 0.0117
 Jupiter -90346-03-27 10:03 J -31277368.29 -31277368.08 -31277367.85 0.0494 0.0193
 Uranus -90346-11-18 17:44 J -31277131.80 -31277131.76 -31277131.68 0.0132 0.0129
 Saturn -90340-08-01 02:37 J -31275049.55 -31275049.39 -31275049.23 0.0285 0.0214
 Saturn -90339-08-15 14:08 J -31274670.16 -31274669.91 -31274669.66 0.0284 0.0004
 Saturn -90338-08-29 16:18 J -31274290.98 -31274290.82 -31274290.64 0.0283 0.0213
 Jupiter -90334-03-31 22:47 J -31272980.64 -31272980.55 -31272980.46 0.0493 0.0451
 Saturn -90325-01-22 21:06 J -31269761.64 -31269761.62 -31269761.57 0.0274 0.0270
 Saturn -90324-02-02 19:25 J -31269384.90 -31269384.69 -31269384.46 0.0274 0.0104
 Mars -90324-07-02 17:15 J -31269234.95 -31269234.78 -31269234.61 0.1805 0.0973
 Saturn -90323-02-14 14:51 J -31269008.12 -31269007.88 -31269007.64 0.0275 0.0078

Saturn -90322-02-26 16:18 J -31268630.85 -31268630.82 -31268630.76 0.0276 0.0270
 Uranus -90314-03-29 17:01 J -31265677.93 -31265677.79 -31265677.62 0.0147 0.0117
 Uranus -90313-04-03 05:01 J -31265307.46 -31265307.29 -31265307.09 0.0147 0.0098
 Uranus -90312-04-08 04:03 J -31264937.56 -31264937.33 -31264937.07 0.0147 0.0052
 Uranus -90311-04-13 17:30 J -31264567.01 -31264566.77 -31264566.53 0.0147 0.0032
 Neptune -90311-09-14 17:44 J -31264412.86 -31264412.76 -31264412.59 0.0088 0.0075
 Uranus -90310-04-18 20:08 J -31264196.92 -31264196.66 -31264196.39 0.0147 0.0005
 Saturn -90310-08-09 02:23 J -31264084.63 -31264084.40 -31264084.16 0.0284 0.0095
 Neptune -90310-09-17 09:20 J -31264045.32 -31264045.11 -31264044.87 0.0088 0.0049
 Uranus -90309-04-23 08:23 J -31263826.39 -31263826.15 -31263825.91 0.0147 0.0041
 Saturn -90309-08-22 10:32 J -31263705.27 -31263705.06 -31263704.83 0.0283 0.0117
 Neptune -90309-09-18 20:37 J -31263677.89 -31263677.64 -31263677.39 0.0088 0.0016
 Uranus -90308-04-28 14:51 J -31263456.11 -31263455.88 -31263455.62 0.0147 0.0060
 Neptune -90308-09-21 06:56 J -31263310.47 -31263310.21 -31263309.94 0.0088 0.0009
 Uranus -90307-05-03 23:59 J -31263085.66 -31263085.50 -31263085.31 0.0147 0.0106
 Neptune -90307-09-23 22:47 J -31262942.77 -31262942.55 -31262942.32 0.0088 0.0042
 Uranus -90306-05-09 11:15 J -31262715.14 -31262715.03 -31262714.88 0.0147 0.0128
 Neptune -90306-09-26 04:47 J -31262575.46 -31262575.30 -31262575.10 0.0088 0.0065
 Saturn -90295-01-28 08:08 J -31258798.33 -31258798.16 -31258797.98 0.0274 0.0183
 Saturn -90294-02-09 09:49 J -31258421.32 -31258421.09 -31258420.86 0.0275 0.0006
 Saturn -90293-02-21 14:51 J -31258044.05 -31258043.88 -31258043.70 0.0276 0.0183
 Jupiter -90293-09-27 11:44 J -31257825.21 -31257825.01 -31257824.79 0.0532 0.0220
 Jupiter -90287-03-18 08:23 J -31255827.28 -31255827.15 -31255827.02 0.0498 0.0408
 Saturn -90281-08-02 04:18 J -31253498.49 -31253498.32 -31253498.12 0.0285 0.0195
 Jupiter -90281-10-02 20:37 J -31253436.86 -31253436.64 -31253436.41 0.0533 0.0146
 Saturn -90280-08-16 11:59 J -31253119.25 -31253119.00 -31253118.73 0.0284 0.0020
 Saturn -90279-08-30 12:56 J -31252740.11 -31252739.96 -31252739.80 0.0283 0.0226
 Jupiter -90275-03-22 09:20 J -31251440.35 -31251440.11 -31251439.88 0.0497 0.0103
 Uranus -90274-10-04 02:51 J -31250879.51 -31250879.38 -31250879.25 0.0132 0.0114
 Uranus -90273-10-07 11:30 J -31250510.16 -31250510.02 -31250509.84 0.0131 0.0100

Uranus	-90272-10-11 10:32 J	-31250141.25	-31250141.06	-31250140.83	0.0131	0.0078
Uranus	-90271-10-15 19:11 J	-31249771.92	-31249771.70	-31249771.47	0.0131	0.0052
Mars	-90270-01-05 06:27 J	-31249690.42	-31249690.23	-31249690.05	0.1718	0.0471
Uranus	-90270-10-19 17:15 J	-31249403.02	-31249402.78	-31249402.53	0.0131	0.0039
Jupiter	-90269-10-07 17:01 J	-31249048.90	-31249048.79	-31249048.68	0.0535	0.0467
Uranus	-90269-10-23 00:42 J	-31249033.72	-31249033.47	-31249033.23	0.0131	0.0006
Uranus	-90268-10-26 22:03 J	-31248664.84	-31248664.58	-31248664.32	0.0131	0.0004
Uranus	-90267-10-31 04:18 J	-31248295.55	-31248295.32	-31248295.08	0.0131	0.0038
Saturn	-90266-01-24 01:39 J	-31248210.51	-31248210.43	-31248210.33	0.0274	0.0252
Uranus	-90266-11-04 00:42 J	-31247926.71	-31247926.47	-31247926.23	0.0132	0.0049
Saturn	-90265-02-04 18:27 J	-31247833.96	-31247833.73	-31247833.49	0.0274	0.0085
Uranus	-90265-11-07 06:27 J	-31247557.42	-31247557.23	-31247557.02	0.0132	0.0075
Saturn	-90264-02-15 14:37 J	-31247457.11	-31247456.89	-31247456.66	0.0275	0.0098
Uranus	-90264-11-11 01:54 J	-31247188.58	-31247188.42	-31247188.23	0.0132	0.0095
Jupiter	-90263-03-26 23:15 J	-31247052.75	-31247052.53	-31247052.32	0.0495	0.0161
Uranus	-90263-11-15 07:54 J	-31246819.28	-31246819.17	-31246819.02	0.0132	0.0111
Jupiter	-90251-03-31 07:25 J	-31242665.30	-31242665.19	-31242665.06	0.0493	0.0422
Saturn	-90251-08-10 10:32 J	-31242533.30	-31242533.06	-31242532.83	0.0284	0.0076
Saturn	-90250-08-24 19:25 J	-31242153.90	-31242153.69	-31242153.47	0.0283	0.0135
Mars	-90245-07-05 16:32 J	-31240376.98	-31240376.81	-31240376.64	0.1811	0.0802
Saturn	-90236-01-29 14:37 J	-31237247.06	-31237246.89	-31237246.70	0.0274	0.0165
Saturn	-90235-02-10 15:49 J	-31236870.08	-31236869.84	-31236869.60	0.0275	0.0013
Saturn	-90234-02-22 14:37 J	-31236493.04	-31236492.89	-31236492.71	0.0276	0.0205
Uranus	-90231-03-25 04:32 J	-31235366.34	-31235366.31	-31235366.26	0.0147	0.0145
Uranus	-90230-03-30 01:54 J	-31234996.55	-31234996.42	-31234996.26	0.0147	0.0119
Uranus	-90229-04-03 14:23 J	-31234626.11	-31234625.90	-31234625.68	0.0147	0.0079
Neptune	-90228-03-08 14:23 J	-31234287.02	-31234286.90	-31234286.73	0.0089	0.0072
Uranus	-90228-04-08 13:11 J	-31234256.18	-31234255.95	-31234255.72	0.0147	0.0063
Neptune	-90227-03-11 08:08 J	-31233919.37	-31233919.16	-31233918.90	0.0089	0.0037
Uranus	-90227-04-14 02:37 J	-31233885.63	-31233885.39	-31233885.13	0.0147	0.0020

Neptune -90226-03-13 13:39 J -31233552.16 -31233551.93 -31233551.67 0.0089 0.0015
 Uranus -90226-04-19 04:18 J -31233515.59 -31233515.32 -31233515.06 0.0147 0.0006
 Neptune -90225-03-15 04:32 J -31233184.56 -31233184.31 -31233184.05 0.0089 0.0021
 Uranus -90225-04-23 17:01 J -31233145.03 -31233144.79 -31233144.55 0.0147 0.0033
 Neptune -90224-03-17 13:39 J -31232817.13 -31232816.93 -31232816.70 0.0089 0.0043
 Uranus -90224-04-28 22:03 J -31232774.80 -31232774.58 -31232774.35 0.0147 0.0076
 Mars -90224-12-29 12:42 J -31232530.12 -31232529.97 -31232529.82 0.1740 0.1021
 Neptune -90223-03-19 23:59 J -31232449.60 -31232449.50 -31232449.36 0.0089 0.0079
 Uranus -90223-05-04 08:23 J -31232404.33 -31232404.15 -31232403.95 0.0147 0.0094
 Uranus -90222-05-09 17:59 J -31232033.85 -31232033.75 -31232033.63 0.0147 0.0133
 Saturn -90222-08-04 03:06 J -31231947.56 -31231947.37 -31231947.15 0.0285 0.0176
 Saturn -90221-08-17 10:18 J -31231568.32 -31231568.07 -31231567.82 0.0284 0.0035
 Saturn -90220-08-31 14:23 J -31231189.02 -31231188.90 -31231188.76 0.0283 0.0242
 Pluto -90219-06-03 03:49 J -31230913.61 -31230913.34 -31230913.06 0.0067 0.0006
 Jupiter -90210-09-27 19:54 J -31227509.86 -31227509.67 -31227509.46 0.0530 0.0264
 Saturn -90207-01-25 02:08 J -31226659.53 -31226659.41 -31226659.28 0.0274 0.0232
 Saturn -90206-02-05 18:42 J -31226282.95 -31226282.72 -31226282.49 0.0274 0.0066
 Saturn -90205-02-17 21:06 J -31225905.83 -31225905.62 -31225905.41 0.0275 0.0120
 Jupiter -90204-03-17 08:37 J -31225512.25 -31225512.14 -31225512.03 0.0499 0.0437
 Jupiter -90198-10-02 14:23 J -31223122.14 -31223121.90 -31223121.66 0.0533 0.0082
 Saturn -90193-07-28 05:30 J -31221361.35 -31221361.27 -31221361.17 0.0285 0.0264
 Jupiter -90192-03-21 23:15 J -31221124.74 -31221124.53 -31221124.31 0.0497 0.0133
 Saturn -90192-08-11 19:11 J -31220981.94 -31220981.70 -31220981.45 0.0284 0.0054
 Mars -90191-01-07 12:42 J -31220833.07 -31220832.97 -31220832.87 0.1713 0.1418
 Saturn -90191-08-26 00:27 J -31220602.69 -31220602.48 -31220602.26 0.0284 0.0153
 Uranus -90191-09-30 11:44 J -31220567.03 -31220567.01 -31220566.95 0.0132 0.0130
 Uranus -90190-10-04 11:01 J -31220198.12 -31220198.04 -31220197.91 0.0132 0.0120
 Uranus -90189-10-07 21:35 J -31219828.76 -31219828.60 -31219828.41 0.0132 0.0092
 Uranus -90188-10-11 19:54 J -31219459.87 -31219459.67 -31219459.44 0.0131 0.0073
 Uranus -90187-10-16 04:47 J -31219090.51 -31219090.30 -31219090.07 0.0131 0.0056

Jupiter -90186-10-08 00:13 J -31218733.63 -31218733.49 -31218733.35 0.0535 0.0419
 Uranus -90186-10-20 02:08 J -31218721.66 -31218721.41 -31218721.16 0.0131 0.0026
 Uranus -90185-10-23 10:18 J -31218352.31 -31218352.07 -31218351.83 0.0131 0.0015
 Uranus -90184-10-27 06:42 J -31217983.47 -31217983.22 -31217982.96 0.0131 0.0020
 Uranus -90183-10-31 14:08 J -31217614.14 -31217613.91 -31217613.66 0.0131 0.0029
 Uranus -90182-11-04 09:49 J -31217245.31 -31217245.09 -31217244.86 0.0132 0.0059
 Uranus -90181-11-07 17:01 J -31216875.99 -31216875.79 -31216875.59 0.0132 0.0073
 Jupiter -90180-03-26 06:27 J -31216737.46 -31216737.23 -31216736.99 0.0495 0.0121
 Uranus -90180-11-11 11:59 J -31216507.17 -31216507.00 -31216506.82 0.0132 0.0094
 Uranus -90179-11-15 18:27 J -31216137.82 -31216137.73 -31216137.61 0.0132 0.0119
 Uranus -90178-11-19 12:56 J -31215768.98 -31215768.96 -31215768.89 0.0132 0.0131
 Saturn -90177-01-31 23:15 J -31215695.73 -31215695.53 -31215695.33 0.0274 0.0144
 Saturn -90176-02-11 18:42 J -31215318.96 -31215318.72 -31215318.47 0.0275 0.0036
 Saturn -90175-02-23 16:18 J -31214941.95 -31214941.82 -31214941.68 0.0276 0.0228
 Jupiter -90168-03-30 12:42 J -31212350.10 -31212349.97 -31212349.82 0.0493 0.0391
 Mars -90166-07-09 18:42 J -31211518.80 -31211518.72 -31211518.64 0.1818 0.1655
 Saturn -90163-08-05 05:59 J -31210396.45 -31210396.25 -31210396.03 0.0285 0.0154
 Saturn -90162-08-19 17:01 J -31210017.03 -31210016.79 -31210016.55 0.0284 0.0056
 Saturn -90161-09-01 23:44 J -31209637.60 -31209637.51 -31209637.41 0.0283 0.0259
 Saturn -90148-01-26 03:20 J -31205108.51 -31205108.36 -31205108.21 0.0274 0.0214
 Saturn -90147-02-07 01:39 J -31204731.65 -31204731.43 -31204731.20 0.0275 0.0043
 Uranus -90147-03-25 12:56 J -31204685.03 -31204684.96 -31204684.85 0.0147 0.0138
 Neptune -90147-09-14 05:44 J -31204512.32 -31204512.26 -31204512.15 0.0088 0.0084
 Saturn -90146-02-19 06:13 J -31204354.43 -31204354.24 -31204354.03 0.0275 0.0143
 Uranus -90146-03-30 10:47 J -31204315.20 -31204315.05 -31204314.86 0.0147 0.0109
 Neptune -90146-09-16 18:56 J -31204144.87 -31204144.71 -31204144.52 0.0088 0.0064
 Uranus -90145-04-03 22:32 J -31203944.76 -31203944.56 -31203944.35 0.0147 0.0088
 Neptune -90145-09-18 04:47 J -31203777.56 -31203777.30 -31203777.05 0.0088 0.0027
 Mars -90145-12-31 17:15 J -31203672.94 -31203672.78 -31203672.62 0.1735 0.0627
 Uranus -90144-04-08 21:20 J -31203574.85 -31203574.61 -31203574.36 0.0147 0.0043

Neptune -90144-09-20 21:35 J -31203409.85 -31203409.60 -31203409.35 0.0088 0.0006
 Uranus -90143-04-14 11:15 J -31203204.28 -31203204.03 -31203203.78 0.0147 0.0026
 Neptune -90143-09-23 03:06 J -31203042.61 -31203042.37 -31203042.12 0.0088 0.0031
 Uranus -90142-04-19 11:59 J -31202834.26 -31202834.00 -31202833.74 0.0147 0.0011
 Neptune -90142-09-25 21:20 J -31202674.80 -31202674.61 -31202674.38 0.0088 0.0052
 Uranus -90141-04-24 01:54 J -31202463.65 -31202463.42 -31202463.17 0.0147 0.0044
 Neptune -90141-09-27 02:08 J -31202307.42 -31202307.41 -31202307.35 0.0088 0.0088
 Uranus -90140-04-29 05:30 J -31202093.49 -31202093.27 -31202093.01 0.0147 0.0064
 Uranus -90139-05-04 17:30 J -31201722.93 -31201722.77 -31201722.59 0.0147 0.0109
 Uranus -90138-05-10 01:11 J -31201352.56 -31201352.45 -31201352.30 0.0147 0.0128
 Saturn -90134-07-30 16:32 J -31199809.94 -31199809.81 -31199809.66 0.0285 0.0236
 Saturn -90133-08-13 01:39 J -31199430.69 -31199430.43 -31199430.17 0.0284 0.0029
 Pluto -90133-12-07 06:42 J -31199314.41 -31199314.22 -31199313.99 0.0077 0.0045
 Saturn -90132-08-27 03:20 J -31199051.57 -31199051.36 -31199051.16 0.0284 0.0172
 Jupiter -90127-09-26 13:25 J -31197195.12 -31197194.94 -31197194.74 0.0530 0.0318
 Jupiter -90121-03-16 20:51 J -31195196.70 -31195196.63 -31195196.55 0.0499 0.0466
 Mars -90119-06-28 11:59 J -31194363.09 -31194363.00 -31194362.90 0.1787 0.1554
 Saturn -90118-02-02 03:20 J -31194144.58 -31194144.36 -31194144.13 0.0274 0.0120
 Saturn -90117-02-13 21:06 J -31193767.86 -31193767.62 -31193767.38 0.0275 0.0059
 Saturn -90116-02-24 23:59 J -31193390.59 -31193390.50 -31193390.40 0.0276 0.0250
 Jupiter -90115-10-02 00:27 J -31192806.71 -31192806.48 -31192806.25 0.0532 0.0033
 Jupiter -90109-03-21 04:32 J -31190809.53 -31190809.31 -31190809.08 0.0497 0.0173
 Uranus -90106-10-04 19:39 J -31189516.81 -31189516.68 -31189516.50 0.0132 0.0106
 Uranus -90105-10-08 06:56 J -31189147.37 -31189147.21 -31189147.01 0.0132 0.0093
 Saturn -90104-08-06 16:03 J -31188845.04 -31188844.83 -31188844.60 0.0284 0.0129
 Uranus -90104-10-12 04:47 J -31188778.50 -31188778.30 -31188778.07 0.0131 0.0070
 Saturn -90103-08-21 04:32 J -31188465.54 -31188465.31 -31188465.07 0.0284 0.0078
 Jupiter -90103-10-07 02:23 J -31188418.57 -31188418.40 -31188418.22 0.0534 0.0370
 Uranus -90103-10-16 15:06 J -31188409.10 -31188408.87 -31188408.63 0.0131 0.0046
 Saturn -90102-09-04 08:51 J -31188086.16 -31188086.13 -31188086.06 0.0283 0.0277

Uranus	-90102-10-20 11:59 J	-31188040.25	-31188040.00	-31188039.75	0.0131	0.0032
Uranus	-90101-10-23 21:06 J	-31187670.87	-31187670.62	-31187670.37	0.0131	0.0001
Uranus	-90100-10-27 16:47 J	-31187302.05	-31187301.80	-31187301.54	0.0131	0.0009
Uranus	-90099-11-01 00:27 J	-31186932.70	-31186932.48	-31186932.24	0.0131	0.0043
Uranus	-90098-11-04 19:11 J	-31186563.92	-31186563.70	-31186563.46	0.0132	0.0052
Jupiter	-90097-03-25 08:08 J	-31186422.38	-31186422.16	-31186421.93	0.0496	0.0073
Uranus	-90097-11-08 02:37 J	-31186194.57	-31186194.39	-31186194.18	0.0132	0.0079
Uranus	-90096-11-11 20:51 J	-31185825.78	-31185825.63	-31185825.44	0.0132	0.0097
Uranus	-90095-11-16 04:18 J	-31185456.42	-31185456.32	-31185456.17	0.0132	0.0115
Saturn	-90089-01-28 10:18 J	-31183557.23	-31183557.07	-31183556.90	0.0274	0.0190
Saturn	-90088-02-08 12:27 J	-31183180.21	-31183179.98	-31183179.74	0.0275	0.0019
Saturn	-90087-02-20 13:39 J	-31182803.12	-31182802.93	-31182802.73	0.0275	0.0166
Jupiter	-90085-03-29 22:03 J	-31182034.74	-31182034.58	-31182034.41	0.0494	0.0352
Saturn	-90075-08-01 01:11 J	-31178258.62	-31178258.45	-31178258.27	0.0285	0.0209
Saturn	-90074-08-15 07:39 J	-31177879.44	-31177879.18	-31177878.92	0.0284	0.0006
Saturn	-90073-08-28 11:01 J	-31177500.21	-31177500.04	-31177499.85	0.0284	0.0195
Mars	-90065-01-03 15:35 J	-31174816.02	-31174815.85	-31174815.68	0.1730	0.0414
Neptune	-90064-03-08 07:11 J	-31174386.25	-31174386.20	-31174386.09	0.0089	0.0085
Neptune	-90063-03-10 13:25 J	-31174019.12	-31174018.94	-31174018.72	0.0089	0.0051
Uranus	-90063-03-25 22:03 J	-31174003.67	-31174003.58	-31174003.48	0.0147	0.0136
Neptune	-90062-03-13 03:49 J	-31173651.58	-31173651.34	-31173651.08	0.0089	0.0027
Uranus	-90062-03-30 20:37 J	-31173633.79	-31173633.64	-31173633.46	0.0147	0.0109
Neptune	-90061-03-14 14:37 J	-31173284.13	-31173283.89	-31173283.64	0.0089	0.0007
Uranus	-90061-04-04 08:08 J	-31173263.39	-31173263.16	-31173262.94	0.0147	0.0070
Saturn	-90060-01-22 16:47 J	-31172969.87	-31172969.80	-31172969.71	0.0274	0.0257
Neptune	-90060-03-16 23:44 J	-31172916.76	-31172916.51	-31172916.26	0.0089	0.0031
Uranus	-90060-04-09 06:56 J	-31172893.44	-31172893.21	-31172892.97	0.0147	0.0055
Saturn	-90059-02-03 06:42 J	-31172593.44	-31172593.22	-31172592.98	0.0274	0.0097
Neptune	-90059-03-19 14:23 J	-31172549.04	-31172548.90	-31172548.70	0.0089	0.0065
Uranus	-90059-04-14 20:37 J	-31172522.89	-31172522.64	-31172522.38	0.0147	0.0012

Saturn -90058-02-15 05:15 J -31172216.50 -31172216.28 -31172216.06 0.0275 0.0085
 Neptune -90058-03-21 20:23 J -31172181.69 -31172181.65 -31172181.60 0.0089 0.0088
 Uranus -90058-04-19 20:37 J -31172152.89 -31172152.64 -31172152.38 0.0147 0.0010
 Saturn -90057-02-27 12:27 J -31171838.99 -31171838.98 -31171838.96 0.0276 0.0275
 Uranus -90057-04-24 10:47 J -31171782.29 -31171782.05 -31171781.81 0.0147 0.0039
 Uranus -90056-04-29 12:56 J -31171412.17 -31171411.96 -31171411.73 0.0147 0.0080
 Uranus -90055-05-05 02:08 J -31171041.60 -31171041.41 -31171041.22 0.0147 0.0096
 Uranus -90054-05-10 07:54 J -31170671.25 -31170671.17 -31170671.05 0.0147 0.0136
 Saturn -90045-08-08 06:56 J -31167293.44 -31167293.21 -31167292.98 0.0284 0.0101
 Saturn -90044-08-22 16:03 J -31166914.07 -31166913.83 -31166913.59 0.0284 0.0103
 Jupiter -90044-09-25 23:01 J -31166879.70 -31166879.54 -31166879.36 0.0529 0.0358
 Mars -90040-07-01 22:18 J -31165504.77 -31165504.57 -31165504.37 0.1795 0.0808
 Jupiter -90032-09-30 21:49 J -31162491.83 -31162491.59 -31162491.35 0.0531 0.0027
 Saturn -90030-01-29 21:06 J -31162005.80 -31162005.62 -31162005.43 0.0275 0.0166
 Saturn -90029-02-10 20:08 J -31161628.90 -31161628.66 -31161628.42 0.0275 0.0007
 Saturn -90028-02-21 17:01 J -31161251.95 -31161251.79 -31161251.60 0.0275 0.0194
 Jupiter -90026-03-21 04:32 J -31160494.50 -31160494.31 -31160494.11 0.0498 0.0227
 Uranus -90023-10-01 05:30 J -31159204.35 -31159204.27 -31159204.15 0.0132 0.0121
 Uranus -90022-10-05 04:32 J -31158835.44 -31158835.31 -31158835.18 0.0132 0.0112
 Uranus -90021-10-08 16:03 J -31158466.01 -31158465.83 -31158465.62 0.0132 0.0084
 Jupiter -90020-10-05 20:23 J -31158103.83 -31158103.65 -31158103.46 0.0533 0.0298
 Uranus -90020-10-12 13:39 J -31158097.15 -31158096.93 -31158096.71 0.0131 0.0067
 Uranus -90019-10-16 23:44 J -31157727.73 -31157727.51 -31157727.27 0.0131 0.0049
 Uranus -90018-10-20 20:08 J -31157358.91 -31157358.66 -31157358.41 0.0131 0.0020
 Uranus -90017-10-24 05:44 J -31156989.51 -31156989.26 -31156989.01 0.0131 0.0010
 Saturn -90016-08-02 09:35 J -31156707.29 -31156707.10 -31156706.89 0.0285 0.0182
 Uranus -90016-10-28 00:56 J -31156620.71 -31156620.46 -31156620.21 0.0131 0.0025
 Saturn -90015-08-16 18:56 J -31156327.96 -31156327.71 -31156327.46 0.0284 0.0024
 Uranus -90015-11-01 09:35 J -31156251.34 -31156251.10 -31156250.86 0.0132 0.0032
 Jupiter -90014-03-25 19:54 J -31156106.91 -31156106.67 -31156106.43 0.0496 0.0028

Saturn	-90014-08-31 01:54 J	-31155948.57	-31155948.42	-31155948.27	0.0283	0.0222
Uranus	-90014-11-05 04:03 J	-31155882.54	-31155882.33	-31155882.10	0.0132	0.0063
Uranus	-90013-11-08 12:27 J	-31155513.18	-31155512.98	-31155512.78	0.0132	0.0075
Uranus	-90012-11-12 06:13 J	-31155144.39	-31155144.24	-31155144.05	0.0132	0.0098
Uranus	-90011-11-16 14:23 J	-31154774.99	-31154774.90	-31154774.79	0.0132	0.0121
Uranus	-90010-11-20 08:23 J	-31154406.15	-31154406.15	-31154406.13	0.0132	0.0132
Jupiter	-90002-03-29 21:20 J	-31151719.79	-31151719.61	-31151719.43	0.0494	0.0313
Saturn	-90001-01-24 20:51 J	-31151418.75	-31151418.63	-31151418.50	0.0274	0.0235

90TH MILLENNIUM BCE

This is a list of transits of Moon in the 90th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-90000-02-04 15:06 J	-31151042.10	-31151041.87	-31151041.64	0.0274	0.0071		
Saturn	-89999-02-16 18:27 J	-31150664.93	-31150664.73	-31150664.51	0.0275	0.0113		
Saturn	-89987-07-27 08:51 J	-31146121.17	-31146121.13	-31146121.07	0.0285	0.0279		
Mars	-89986-01-05 20:23 J	-31145958.81	-31145958.65	-31145958.49	0.1725	0.0905		
Saturn	-89986-08-10 20:37 J	-31145741.88	-31145741.64	-31145741.39	0.0284	0.0072		
Saturn	-89985-08-24 00:42 J	-31145362.70	-31145362.47	-31145362.23	0.0284	0.0129		
Neptune	-89982-09-16 01:11 J	-31144244.59	-31144244.45	-31144244.27	0.0088	0.0071		
Neptune	-89981-09-17 19:39 J	-31143876.89	-31143876.68	-31143876.44	0.0088	0.0045		
Neptune	-89980-09-20 01:25 J	-31143509.69	-31143509.44	-31143509.17	0.0088	0.0013		
Uranus	-89979-03-26 07:11 J	-31143322.31	-31143322.20	-31143322.05	0.0147	0.0127		
Neptune	-89979-09-22 20:37 J	-31143141.90	-31143141.64	-31143141.38	0.0088	0.0012		

Uranus -89978-03-31 06:56 J -31142952.38 -31142952.21 -31142952.02 0.0147 0.0100
 Neptune -89978-09-25 01:54 J -31142774.63 -31142774.42 -31142774.19 0.0088 0.0045
 Uranus -89977-04-04 16:32 J -31142582.01 -31142581.81 -31142581.58 0.0147 0.0080
 Neptune -89977-09-26 19:25 J -31142406.86 -31142406.69 -31142406.52 0.0088 0.0068
 Uranus -89976-04-09 16:03 J -31142212.07 -31142211.83 -31142211.58 0.0147 0.0036
 Uranus -89975-04-15 05:30 J -31141841.52 -31141841.27 -31141841.01 0.0147 0.0021
 Uranus -89974-04-20 05:15 J -31141471.53 -31141471.28 -31141471.02 0.0147 0.0017
 Uranus -89973-04-24 19:54 J -31141100.90 -31141100.67 -31141100.42 0.0147 0.0048
 Uranus -89972-04-29 21:35 J -31140730.82 -31140730.60 -31140730.35 0.0147 0.0068
 Pluto -89972-06-03 15:49 J -31140696.03 -31140695.84 -31140695.65 0.0067 0.0048
 Saturn -89971-01-31 06:13 J -31140454.44 -31140454.24 -31140454.03 0.0275 0.0142
 Uranus -89971-05-05 11:30 J -31140360.17 -31140360.02 -31140359.85 0.0147 0.0112
 Pluto -89971-06-05 08:51 J -31140329.31 -31140329.13 -31140328.92 0.0067 0.0044
 Saturn -89970-02-11 23:59 J -31140077.74 -31140077.50 -31140077.25 0.0275 0.0034
 Uranus -89970-05-10 15:49 J -31139989.95 -31139989.84 -31139989.69 0.0147 0.0128
 Saturn -89969-02-23 23:30 J -31139700.65 -31139700.52 -31139700.37 0.0276 0.0221
 Mars -89961-07-05 17:01 J -31136645.95 -31136645.79 -31136645.63 0.1802 0.1161
 Jupiter -89961-09-24 13:11 J -31136565.08 -31136564.95 -31136564.81 0.0529 0.0430
 Saturn -89957-08-04 00:13 J -31135155.69 -31135155.49 -31135155.28 0.0285 0.0154
 Saturn -89956-08-18 12:13 J -31134776.22 -31134775.99 -31134775.75 0.0284 0.0052
 Saturn -89955-09-01 18:42 J -31134396.82 -31134396.72 -31134396.59 0.0283 0.0248
 Jupiter -89949-09-29 17:30 J -31132177.00 -31132176.77 -31132176.55 0.0531 0.0102
 Jupiter -89943-03-20 15:49 J -31130179.03 -31130178.84 -31130178.63 0.0498 0.0271
 Saturn -89942-01-26 03:06 J -31129867.51 -31129867.37 -31129867.22 0.0274 0.0213
 Saturn -89941-02-07 03:20 J -31129490.58 -31129490.36 -31129490.13 0.0275 0.0045
 Saturn -89940-02-18 05:44 J -31129113.46 -31129113.26 -31129113.04 0.0275 0.0140
 Mars -89940-12-30 01:54 J -31128798.60 -31128798.42 -31128798.24 0.1748 0.0666
 Uranus -89939-10-01 14:23 J -31128522.92 -31128522.90 -31128522.84 0.0132 0.0130
 Uranus -89938-10-05 12:56 J -31128154.12 -31128153.96 -31128153.78 0.0132 0.0097
 Jupiter -89937-10-05 01:25 J -31127788.65 -31127788.44 -31127788.22 0.0533 0.0244

Uranus	-89937-10-09 01:25 J	-31127784.63	-31127784.44	-31127784.25	0.0132	0.0086
Uranus	-89936-10-12 22:32 J	-31127415.78	-31127415.56	-31127415.34	0.0132	0.0062
Uranus	-89935-10-17 09:20 J	-31127046.34	-31127046.11	-31127045.86	0.0131	0.0040
Uranus	-89934-10-21 05:30 J	-31126677.51	-31126677.27	-31126677.02	0.0131	0.0026
Uranus	-89933-10-24 15:20 J	-31126308.11	-31126307.86	-31126307.61	0.0131	0.0006
Uranus	-89932-10-28 10:18 J	-31125939.32	-31125939.07	-31125938.82	0.0131	0.0013
Jupiter	-89931-03-24 17:44 J	-31125791.99	-31125791.76	-31125791.53	0.0497	0.0019
Uranus	-89931-11-01 18:42 J	-31125569.94	-31125569.72	-31125569.47	0.0132	0.0047
Uranus	-89930-11-05 13:11 J	-31125201.17	-31125200.95	-31125200.72	0.0132	0.0054
Uranus	-89929-11-08 21:20 J	-31124831.79	-31124831.61	-31124831.40	0.0132	0.0082
Saturn	-89928-07-28 22:47 J	-31124569.66	-31124569.55	-31124569.41	0.0284	0.0249
Uranus	-89928-11-12 15:20 J	-31124463.02	-31124462.86	-31124462.69	0.0132	0.0098
Saturn	-89927-08-12 07:11 J	-31124190.46	-31124190.20	-31124189.94	0.0284	0.0045
Uranus	-89927-11-16 23:15 J	-31124093.63	-31124093.53	-31124093.40	0.0132	0.0116
Saturn	-89926-08-26 10:47 J	-31123811.26	-31123811.05	-31123810.84	0.0283	0.0156
Jupiter	-89919-03-29 06:27 J	-31121404.42	-31121404.23	-31121404.03	0.0495	0.0268
Saturn	-89912-02-01 10:18 J	-31118903.29	-31118903.07	-31118902.84	0.0275	0.0117
Saturn	-89911-02-13 05:30 J	-31118526.50	-31118526.27	-31118526.03	0.0275	0.0060
Saturn	-89910-02-25 11:15 J	-31118149.12	-31118149.03	-31118148.92	0.0276	0.0248
Neptune	-89899-03-10 04:03 J	-31114118.49	-31114118.33	-31114118.15	0.0089	0.0068
Neptune	-89898-03-12 15:06 J	-31113751.08	-31113750.87	-31113750.62	0.0089	0.0034
Saturn	-89898-08-06 19:25 J	-31113603.90	-31113603.69	-31113603.46	0.0285	0.0126
Neptune	-89897-03-13 23:15 J	-31113383.79	-31113383.53	-31113383.27	0.0089	0.0012
Saturn	-89897-08-20 06:42 J	-31113224.46	-31113224.22	-31113223.98	0.0284	0.0080
Neptune	-89896-03-16 15:35 J	-31113016.09	-31113015.85	-31113015.60	0.0089	0.0023
Uranus	-89896-03-21 12:27 J	-31113011.02	-31113010.98	-31113010.93	0.0147	0.0144
Saturn	-89896-09-03 08:51 J	-31112845.18	-31112845.13	-31112845.05	0.0283	0.0274
Neptune	-89895-03-18 20:08 J	-31112648.86	-31112648.66	-31112648.42	0.0089	0.0045
Uranus	-89895-03-26 16:32 J	-31112640.93	-31112640.81	-31112640.67	0.0147	0.0127
Neptune	-89894-03-21 14:37 J	-31112280.98	-31112280.89	-31112280.78	0.0089	0.0081

Uranus	-89894-03-31 17:15 J	-31112270.95	-31112270.78	-31112270.58	0.0147	0.0099
Uranus	-89893-04-05 02:23 J	-31111900.63	-31111900.40	-31111900.16	0.0147	0.0063
Uranus	-89892-04-10 02:23 J	-31111530.63	-31111530.40	-31111530.16	0.0147	0.0048
Uranus	-89891-04-15 15:06 J	-31111160.13	-31111159.87	-31111159.61	0.0147	0.0005
Uranus	-89890-04-20 14:51 J	-31110790.14	-31110789.88	-31110789.63	0.0147	0.0015
Uranus	-89889-04-25 05:01 J	-31110419.53	-31110419.29	-31110419.04	0.0147	0.0044
Uranus	-89888-04-30 05:44 J	-31110049.46	-31110049.26	-31110049.03	0.0147	0.0083
Uranus	-89887-05-05 20:23 J	-31109678.82	-31109678.65	-31109678.45	0.0147	0.0098
Uranus	-89886-05-10 23:44 J	-31109308.58	-31109308.51	-31109308.41	0.0147	0.0138
Pluto	-89886-12-08 17:59 J	-31109096.99	-31109096.75	-31109096.49	0.0078	0.0022
Saturn	-89883-01-27 14:51 J	-31108316.04	-31108315.88	-31108315.71	0.0274	0.0190
Saturn	-89882-02-08 15:06 J	-31107939.11	-31107938.87	-31107938.63	0.0275	0.0021
Saturn	-89881-02-20 11:59 J	-31107562.19	-31107562.00	-31107561.79	0.0275	0.0165
Jupiter	-89878-09-24 15:20 J	-31106249.94	-31106249.86	-31106249.77	0.0528	0.0486
Saturn	-89869-07-30 09:20 J	-31103018.27	-31103018.11	-31103017.94	0.0284	0.0222
Saturn	-89868-08-13 18:27 J	-31102638.98	-31102638.73	-31102638.47	0.0284	0.0018
Saturn	-89867-08-28 01:11 J	-31102259.63	-31102259.45	-31102259.25	0.0283	0.0184
Jupiter	-89866-09-29 22:32 J	-31101861.79	-31101861.56	-31101861.32	0.0530	0.0152
Mars	-89860-01-01 18:13 J	-31099940.93	-31099940.74	-31099940.55	0.1742	0.0198
Jupiter	-89860-03-19 10:18 J	-31099864.24	-31099864.07	-31099863.89	0.0499	0.0326
Uranus	-89855-10-01 22:32 J	-31097841.67	-31097841.56	-31097841.40	0.0132	0.0112
Saturn	-89854-01-22 21:06 J	-31097728.70	-31097728.62	-31097728.52	0.0275	0.0255
Jupiter	-89854-10-04 19:54 J	-31097473.88	-31097473.67	-31097473.45	0.0532	0.0188
Uranus	-89854-10-05 21:35 J	-31097472.74	-31097472.60	-31097472.44	0.0132	0.0105
Saturn	-89853-02-03 13:11 J	-31097352.17	-31097351.95	-31097351.72	0.0275	0.0095
Uranus	-89853-10-09 09:35 J	-31097103.29	-31097103.10	-31097102.88	0.0132	0.0076
Saturn	-89852-02-14 14:37 J	-31096975.11	-31096974.89	-31096974.67	0.0275	0.0085
Uranus	-89852-10-13 07:11 J	-31096734.42	-31096734.20	-31096733.98	0.0132	0.0061
Saturn	-89851-02-26 22:32 J	-31096597.58	-31096597.56	-31096597.52	0.0276	0.0273
Uranus	-89851-10-17 17:30 J	-31096365.00	-31096364.77	-31096364.52	0.0131	0.0041

Uranus	-89850-10-21 13:39 J	-31095996.18	-31095995.93	-31095995.68	0.0131	0.0015
Uranus	-89849-10-24 23:15 J	-31095626.79	-31095626.53	-31095626.28	0.0131	0.0005
Jupiter	-89848-03-24 02:23 J	-31095476.63	-31095476.40	-31095476.17	0.0497	0.0072
Uranus	-89848-10-28 17:59 J	-31095257.99	-31095257.75	-31095257.50	0.0132	0.0029
Uranus	-89847-11-02 02:51 J	-31094888.62	-31094888.38	-31094888.13	0.0132	0.0035
Uranus	-89846-11-05 21:20 J	-31094519.81	-31094519.61	-31094519.38	0.0132	0.0067
Uranus	-89845-11-09 05:44 J	-31094150.45	-31094150.26	-31094150.05	0.0132	0.0077
Uranus	-89844-11-13 00:13 J	-31093781.64	-31093781.49	-31093781.32	0.0132	0.0101
Uranus	-89843-11-17 08:08 J	-31093412.25	-31093412.16	-31093412.05	0.0132	0.0122
Saturn	-89839-08-08 13:11 J	-31092052.18	-31092051.95	-31092051.71	0.0285	0.0097
Saturn	-89838-08-22 20:08 J	-31091672.90	-31091672.66	-31091672.42	0.0284	0.0107
Jupiter	-89836-03-28 05:15 J	-31091089.49	-31091089.28	-31091089.07	0.0496	0.0229
Mars	-89835-06-28 21:49 J	-31090631.74	-31090631.59	-31090631.44	0.1779	0.1124
Saturn	-89824-01-29 02:08 J	-31086764.60	-31086764.41	-31086764.23	0.0274	0.0168
Saturn	-89823-02-09 21:06 J	-31086387.87	-31086387.62	-31086387.38	0.0275	0.0005
Saturn	-89822-02-21 16:32 J	-31086010.98	-31086010.81	-31086010.63	0.0275	0.0191
Neptune	-89818-09-15 17:30 J	-31084343.85	-31084343.77	-31084343.63	0.0088	0.0080
Neptune	-89817-09-16 23:15 J	-31083976.70	-31083976.53	-31083976.32	0.0088	0.0060
Neptune	-89816-09-19 18:56 J	-31083608.96	-31083608.71	-31083608.45	0.0088	0.0023
Neptune	-89815-09-22 01:11 J	-31083241.71	-31083241.45	-31083241.20	0.0088	0.0003
Neptune	-89814-09-24 17:01 J	-31082874.03	-31082873.79	-31082873.53	0.0088	0.0034
Neptune	-89813-09-26 02:37 J	-31082506.56	-31082506.39	-31082506.17	0.0088	0.0055
Uranus	-89811-03-27 00:13 J	-31081959.64	-31081959.49	-31081959.32	0.0147	0.0115
Uranus	-89810-04-01 02:08 J	-31081589.58	-31081589.41	-31081589.20	0.0147	0.0092
Saturn	-89810-08-01 21:49 J	-31081466.76	-31081466.59	-31081466.40	0.0284	0.0194
Uranus	-89809-04-05 09:49 J	-31081219.32	-31081219.09	-31081218.86	0.0147	0.0070
Saturn	-89809-08-15 10:47 J	-31081087.30	-31081087.05	-31081086.81	0.0284	0.0010
Uranus	-89808-04-10 10:47 J	-31080849.29	-31080849.05	-31080848.80	0.0147	0.0029
Saturn	-89808-08-29 18:56 J	-31080707.87	-31080707.71	-31080707.54	0.0283	0.0208
Uranus	-89807-04-15 22:32 J	-31080478.82	-31080478.56	-31080478.30	0.0147	0.0015

Uranus	-89806-04-20 22:47 J	-31080108.79	-31080108.55	-31080108.29	0.0147	0.0023
Uranus	-89805-04-25 13:11 J	-31079738.18	-31079737.95	-31079737.69	0.0147	0.0052
Uranus	-89804-04-30 13:54 J	-31079368.13	-31079367.92	-31079367.68	0.0147	0.0072
Uranus	-89803-05-06 04:47 J	-31078997.44	-31078997.30	-31078997.12	0.0147	0.0115
Uranus	-89802-05-11 07:11 J	-31078627.31	-31078627.20	-31078627.06	0.0147	0.0128
Saturn	-89795-01-23 23:15 J	-31076177.65	-31076177.53	-31076177.41	0.0275	0.0235
Saturn	-89794-02-04 20:51 J	-31075800.85	-31075800.63	-31075800.40	0.0275	0.0071
Saturn	-89793-02-17 00:27 J	-31075423.69	-31075423.48	-31075423.26	0.0275	0.0109
Jupiter	-89783-09-28 11:44 J	-31071547.21	-31071547.01	-31071546.80	0.0529	0.0233
Mars	-89781-01-05 02:37 J	-31071083.55	-31071083.39	-31071083.24	0.1736	0.0874
Saturn	-89781-07-26 13:11 J	-31070880.02	-31070879.95	-31070879.86	0.0285	0.0268
Saturn	-89780-08-09 23:30 J	-31070500.77	-31070500.52	-31070500.26	0.0285	0.0069
Saturn	-89779-08-24 03:49 J	-31070121.56	-31070121.34	-31070121.10	0.0284	0.0130
Jupiter	-89777-03-18 23:59 J	-31069548.64	-31069548.50	-31069548.34	0.0500	0.0370
Uranus	-89772-09-27 18:13 J	-31067529.80	-31067529.74	-31067529.67	0.0132	0.0128
Uranus	-89771-10-02 06:42 J	-31067160.30	-31067160.22	-31067160.10	0.0132	0.0121
Jupiter	-89771-10-03 21:06 J	-31067158.85	-31067158.62	-31067158.39	0.0532	0.0114
Uranus	-89770-10-06 05:59 J	-31066791.42	-31066791.25	-31066791.05	0.0132	0.0089
Uranus	-89769-10-09 17:30 J	-31066421.95	-31066421.77	-31066421.54	0.0132	0.0080
Uranus	-89768-10-13 15:06 J	-31066053.08	-31066052.87	-31066052.62	0.0132	0.0055
Uranus	-89767-10-18 01:39 J	-31065683.67	-31065683.43	-31065683.17	0.0131	0.0035
Uranus	-89766-10-21 22:18 J	-31065314.81	-31065314.57	-31065314.31	0.0131	0.0020
Saturn	-89765-01-31 06:13 J	-31065213.43	-31065213.24	-31065213.02	0.0274	0.0144
Jupiter	-89765-03-23 03:06 J	-31065161.60	-31065161.37	-31065161.14	0.0498	0.0106
Uranus	-89765-10-25 07:39 J	-31064945.43	-31064945.18	-31064944.92	0.0131	0.0011
Saturn	-89764-02-10 22:32 J	-31064836.80	-31064836.56	-31064836.31	0.0275	0.0029
Uranus	-89764-10-29 03:20 J	-31064576.61	-31064576.36	-31064576.11	0.0131	0.0018
Saturn	-89763-02-22 23:44 J	-31064459.66	-31064459.51	-31064459.36	0.0275	0.0214
Uranus	-89763-11-02 11:15 J	-31064207.25	-31064207.03	-31064206.78	0.0132	0.0051
Uranus	-89762-11-06 06:27 J	-31063838.44	-31063838.23	-31063838.00	0.0132	0.0057

Uranus -89761-11-09 13:54 J -31063469.09 -31063468.92 -31063468.71 0.0132 0.0086
 Uranus -89760-11-13 08:51 J -31063100.28 -31063100.13 -31063099.96 0.0132 0.0100
 Jupiter -89759-10-08 18:42 J -31062770.75 -31062770.72 -31062770.68 0.0534 0.0528
 Uranus -89759-11-17 16:32 J -31062730.91 -31062730.81 -31062730.69 0.0132 0.0118
 Mars -89756-07-01 16:32 J -31061773.99 -31061773.81 -31061773.63 0.1785 0.0553
 Jupiter -89753-03-27 17:15 J -31060773.98 -31060773.78 -31060773.57 0.0496 0.0203
 Saturn -89751-08-03 13:54 J -31059915.12 -31059914.92 -31059914.72 0.0285 0.0165
 Saturn -89750-08-18 03:35 J -31059535.59 -31059535.35 -31059535.10 0.0284 0.0036
 Saturn -89749-08-31 09:35 J -31059156.23 -31059156.10 -31059155.95 0.0283 0.0231
 Saturn -89736-01-25 04:32 J -31054626.45 -31054626.31 -31054626.16 0.0274 0.0213
 Saturn -89735-02-06 05:30 J -31054249.50 -31054249.27 -31054249.04 0.0275 0.0048
 Neptune -89735-03-09 17:59 J -31054217.83 -31054217.75 -31054217.63 0.0089 0.0082
 Mars -89735-12-28 20:51 J -31053923.72 -31053923.63 -31053923.53 0.1760 0.1461
 Saturn -89734-02-18 05:01 J -31053872.51 -31053872.29 -31053872.08 0.0275 0.0132
 Neptune -89734-03-12 00:27 J -31053850.69 -31053850.48 -31053850.24 0.0089 0.0047
 Neptune -89733-03-13 17:01 J -31053483.03 -31053482.79 -31053482.55 0.0089 0.0024
 Neptune -89732-03-15 21:06 J -31053115.87 -31053115.62 -31053115.36 0.0089 0.0011
 Neptune -89731-03-18 15:06 J -31052748.10 -31052747.87 -31052747.63 0.0089 0.0034
 Neptune -89730-03-20 20:08 J -31052380.82 -31052380.66 -31052380.50 0.0089 0.0068
 Uranus -89728-03-22 06:56 J -31051648.31 -31051648.21 -31051648.11 0.0146 0.0133
 Uranus -89727-03-27 07:11 J -31051278.33 -31051278.20 -31051278.02 0.0147 0.0119
 Uranus -89726-04-01 11:15 J -31050908.22 -31050908.03 -31050907.83 0.0147 0.0088
 Uranus -89725-04-05 17:15 J -31050538.02 -31050537.78 -31050537.53 0.0147 0.0056
 Uranus -89724-04-10 19:39 J -31050167.92 -31050167.68 -31050167.44 0.0147 0.0040
 Pluto -89724-06-05 23:44 J -31050111.77 -31050111.51 -31050111.25 0.0067 0.0008
 Uranus -89723-04-16 05:59 J -31049797.51 -31049797.25 -31049796.99 0.0147 0.0002
 Uranus -89722-04-21 06:42 J -31049427.46 -31049427.22 -31049426.96 0.0147 0.0020
 Saturn -89722-07-28 20:51 J -31049328.76 -31049328.63 -31049328.49 0.0285 0.0243
 Uranus -89721-04-25 20:23 J -31049056.88 -31049056.65 -31049056.39 0.0147 0.0050
 Saturn -89721-08-11 06:13 J -31048949.50 -31048949.24 -31048948.99 0.0285 0.0046

Uranus	-89720-04-30 21:20 J	-31048686.82	-31048686.61	-31048686.40	0.0147	0.0086
Saturn	-89720-08-25 13:11 J	-31048570.15	-31048569.95	-31048569.74	0.0284	0.0153
Uranus	-89719-05-06 12:56 J	-31048316.15	-31048315.96	-31048315.77	0.0147	0.0100
Uranus	-89718-05-11 14:23 J	-31047945.95	-31047945.90	-31047945.81	0.0147	0.0141
Saturn	-89706-02-01 06:42 J	-31043662.43	-31043662.22	-31043661.99	0.0274	0.0122
Saturn	-89705-02-13 03:20 J	-31043285.59	-31043285.36	-31043285.13	0.0274	0.0053
Saturn	-89704-02-24 08:37 J	-31042908.25	-31042908.14	-31042908.02	0.0275	0.0237
Mars	-89702-01-07 02:23 J	-31042226.49	-31042226.40	-31042226.31	0.1732	0.1454
Jupiter	-89700-09-27 19:25 J	-31041231.88	-31041231.69	-31041231.48	0.0529	0.0291
Jupiter	-89694-03-19 01:25 J	-31039233.58	-31039233.44	-31039233.30	0.0500	0.0403
Saturn	-89692-08-05 03:49 J	-31038363.55	-31038363.34	-31038363.12	0.0285	0.0139
Saturn	-89691-08-19 14:08 J	-31037984.16	-31037983.91	-31037983.66	0.0284	0.0061
Saturn	-89690-09-02 15:49 J	-31037604.95	-31037604.84	-31037604.72	0.0283	0.0252
Jupiter	-89688-10-02 18:27 J	-31036843.96	-31036843.73	-31036843.49	0.0531	0.0073
Uranus	-89687-10-02 14:23 J	-31036479.05	-31036478.90	-31036478.72	0.0132	0.0103
Uranus	-89686-10-06 14:51 J	-31036110.05	-31036109.88	-31036109.71	0.0132	0.0097
Uranus	-89685-10-10 01:11 J	-31035740.65	-31035740.45	-31035740.21	0.0132	0.0068
Uranus	-89684-10-13 23:44 J	-31035371.73	-31035371.51	-31035371.28	0.0132	0.0055
Uranus	-89683-10-18 09:20 J	-31035002.36	-31035002.11	-31035001.86	0.0131	0.0034
Jupiter	-89682-03-23 13:39 J	-31034846.14	-31034845.93	-31034845.71	0.0498	0.0145
Uranus	-89682-10-22 06:27 J	-31034633.48	-31034633.23	-31034632.98	0.0131	0.0009
Uranus	-89681-10-25 14:51 J	-31034264.14	-31034263.88	-31034263.62	0.0131	0.0002
Uranus	-89680-10-29 11:01 J	-31033895.27	-31033895.04	-31033894.79	0.0131	0.0033
Uranus	-89679-11-02 18:56 J	-31033525.95	-31033525.71	-31033525.46	0.0132	0.0039
Uranus	-89678-11-06 14:51 J	-31033157.07	-31033156.88	-31033156.66	0.0132	0.0071
Saturn	-89677-01-27 11:30 J	-31033075.18	-31033075.02	-31033074.85	0.0274	0.0193
Mars	-89677-07-04 16:03 J	-31032915.98	-31032915.83	-31032915.67	0.1792	0.1198
Uranus	-89677-11-09 22:03 J	-31032787.77	-31032787.58	-31032787.36	0.0132	0.0080
Saturn	-89676-02-07 08:08 J	-31032698.40	-31032698.16	-31032697.92	0.0275	0.0025
Jupiter	-89676-10-08 04:47 J	-31032455.38	-31032455.30	-31032455.21	0.0533	0.0490

Uranus -89676-11-13 17:44 J -31032418.88 -31032418.76 -31032418.59 0.0132 0.0105
 Saturn -89675-02-19 02:51 J -31032321.58 -31032321.38 -31032321.17 0.0275 0.0157
 Uranus -89675-11-18 00:42 J -31032049.54 -31032049.47 -31032049.36 0.0132 0.0123
 Jupiter -89670-03-27 19:54 J -31030458.90 -31030458.67 -31030458.44 0.0496 0.0166
 Saturn -89663-07-30 00:42 J -31027777.61 -31027777.47 -31027777.29 0.0285 0.0223
 Saturn -89662-08-13 14:23 J -31027398.14 -31027397.90 -31027397.65 0.0285 0.0021
 Saturn -89661-08-27 01:25 J -31027018.62 -31027018.44 -31027018.25 0.0284 0.0177
 Jupiter -89658-04-01 03:49 J -31026071.36 -31026071.34 -31026071.29 0.0495 0.0488
 Mars -89656-12-30 22:03 J -31025066.75 -31025066.58 -31025066.40 0.1755 0.0286
 Neptune -89653-09-16 16:18 J -31024075.97 -31024075.82 -31024075.61 0.0088 0.0067
 Neptune -89652-09-19 00:13 J -31023708.70 -31023708.49 -31023708.24 0.0088 0.0040
 Neptune -89651-09-21 16:32 J -31023341.08 -31023340.81 -31023340.54 0.0088 0.0008
 Neptune -89650-09-24 03:35 J -31022973.58 -31022973.35 -31022973.09 0.0088 0.0018
 Neptune -89649-09-25 13:39 J -31022606.14 -31022605.93 -31022605.69 0.0088 0.0048
 Saturn -89648-01-21 17:01 J -31022487.86 -31022487.79 -31022487.70 0.0273 0.0258
 Neptune -89648-09-28 05:01 J -31022238.41 -31022238.29 -31022238.13 0.0088 0.0073
 Saturn -89647-02-02 09:35 J -31022111.32 -31022111.10 -31022110.88 0.0274 0.0101
 Saturn -89646-02-14 10:47 J -31021734.27 -31021734.05 -31021733.83 0.0274 0.0076
 Saturn -89645-02-26 13:39 J -31021357.01 -31021356.93 -31021356.84 0.0275 0.0257
 Uranus -89644-03-22 14:37 J -31020966.93 -31020966.89 -31020966.82 0.0146 0.0143
 Uranus -89643-03-27 13:54 J -31020597.10 -31020596.92 -31020596.74 0.0147 0.0104
 Uranus -89642-04-01 18:42 J -31020226.91 -31020226.72 -31020226.51 0.0147 0.0084
 Uranus -89641-04-05 22:32 J -31019856.79 -31019856.56 -31019856.31 0.0147 0.0061
 Uranus -89640-04-11 02:37 J -31019486.63 -31019486.39 -31019486.14 0.0147 0.0023
 Uranus -89639-04-16 11:44 J -31019116.27 -31019116.01 -31019115.75 0.0147 0.0010
 Uranus -89638-04-21 13:54 J -31018746.16 -31018745.92 -31018745.67 0.0147 0.0029
 Pluto -89638-12-11 03:35 J -31018512.51 -31018512.35 -31018512.16 0.0077 0.0054
 Uranus -89637-04-26 03:06 J -31018375.61 -31018375.37 -31018375.12 0.0147 0.0055
 Uranus -89636-05-01 04:18 J -31018005.53 -31018005.32 -31018005.09 0.0147 0.0077
 Uranus -89635-05-06 19:39 J -31017634.83 -31017634.68 -31017634.52 0.0147 0.0117

Uranus	-89634-05-11 20:37 J	-31017264.74	-31017264.64	-31017264.49	0.0146	0.0129
Saturn	-89633-08-06 11:44 J	-31016812.24	-31016812.01	-31016811.77	0.0285	0.0114
Saturn	-89632-08-20 17:59 J	-31016432.99	-31016432.75	-31016432.49	0.0284	0.0083
Saturn	-89631-09-03 19:39 J	-31016053.74	-31016053.68	-31016053.61	0.0283	0.0272
Saturn	-89618-01-28 14:08 J	-31011524.08	-31011523.91	-31011523.71	0.0274	0.0173
Saturn	-89617-02-09 05:01 J	-31011147.54	-31011147.29	-31011147.04	0.0275	0.0002
Jupiter	-89617-09-26 18:13 J	-31010916.92	-31010916.74	-31010916.56	0.0529	0.0336
Saturn	-89616-02-20 02:08 J	-31010770.59	-31010770.41	-31010770.23	0.0275	0.0179
Jupiter	-89611-03-18 12:27 J	-31008918.07	-31008917.98	-31008917.88	0.0501	0.0448
Jupiter	-89605-10-01 23:59 J	-31006528.73	-31006528.50	-31006528.28	0.0530	0.0019
Saturn	-89604-07-31 06:56 J	-31006226.37	-31006226.21	-31006226.02	0.0285	0.0204
Uranus	-89604-09-28 10:47 J	-31006167.14	-31006167.05	-31006166.93	0.0132	0.0119
Saturn	-89603-08-14 23:30 J	-31005846.76	-31005846.52	-31005846.28	0.0285	0.0001
Uranus	-89603-10-02 22:03 J	-31005797.70	-31005797.58	-31005797.43	0.0132	0.0112
Saturn	-89602-08-29 10:03 J	-31005467.25	-31005467.08	-31005466.89	0.0284	0.0196
Uranus	-89602-10-06 22:47 J	-31005428.73	-31005428.55	-31005428.34	0.0132	0.0081
Uranus	-89601-10-10 08:51 J	-31005059.34	-31005059.13	-31005058.90	0.0132	0.0073
Uranus	-89600-10-14 08:08 J	-31004690.38	-31004690.16	-31004689.92	0.0132	0.0047
Jupiter	-89599-03-22 19:39 J	-31004530.90	-31004530.68	-31004530.45	0.0499	0.0173
Uranus	-89599-10-18 17:15 J	-31004321.03	-31004320.78	-31004320.52	0.0131	0.0029
Uranus	-89598-10-22 15:35 J	-31003952.09	-31003951.85	-31003951.60	0.0131	0.0012
Uranus	-89597-10-25 23:15 J	-31003582.79	-31003582.53	-31003582.27	0.0131	0.0015
Uranus	-89596-10-29 20:37 J	-31003213.88	-31003213.64	-31003213.40	0.0131	0.0023
Uranus	-89595-11-03 03:06 J	-31002844.59	-31002844.37	-31002844.12	0.0132	0.0055
Uranus	-89594-11-06 23:59 J	-31002475.71	-31002475.50	-31002475.27	0.0132	0.0061
Jupiter	-89593-10-06 22:18 J	-31002140.71	-31002140.57	-31002140.42	0.0532	0.0420
Uranus	-89593-11-10 05:59 J	-31002106.42	-31002106.25	-31002106.04	0.0132	0.0090
Uranus	-89592-11-14 03:06 J	-31001737.51	-31001737.37	-31001737.21	0.0132	0.0102
Uranus	-89591-11-18 08:51 J	-31001368.21	-31001368.13	-31001368.01	0.0132	0.0121
Saturn	-89589-01-23 17:01 J	-31000936.90	-31000936.79	-31000936.68	0.0273	0.0242

Saturn -89588-02-03 14:51 J -31000560.10 -31000559.88 -31000559.66 0.0274 0.0080
 Saturn -89587-02-15 14:08 J -31000183.13 -31000182.91 -31000182.68 0.0274 0.0098
 Jupiter -89587-03-27 04:32 J -31000143.53 -31000143.31 -31000143.10 0.0497 0.0153
 Mars -89576-01-02 04:03 J -30996209.51 -30996209.33 -30996209.14 0.1749 0.0253
 Jupiter -89575-03-31 19:11 J -30995755.78 -30995755.70 -30995755.61 0.0495 0.0463
 Saturn -89574-08-08 12:42 J -30995261.22 -30995260.97 -30995260.72 0.0285 0.0096
 Saturn -89573-08-21 20:51 J -30994881.86 -30994881.63 -30994881.39 0.0284 0.0103
 Neptune -89571-03-09 02:23 J -30994317.45 -30994317.40 -30994317.32 0.0089 0.0086
 Neptune -89570-03-11 19:11 J -30993949.86 -30993949.70 -30993949.51 0.0089 0.0064
 Neptune -89569-03-12 22:47 J -30993582.77 -30993582.55 -30993582.29 0.0089 0.0030
 Neptune -89568-03-15 16:47 J -30993215.06 -30993214.80 -30993214.54 0.0089 0.0008
 Neptune -89567-03-17 22:03 J -30992847.82 -30992847.58 -30992847.34 0.0089 0.0027
 Neptune -89566-03-20 12:42 J -30992480.18 -30992479.97 -30992479.74 0.0089 0.0048
 Neptune -89565-03-21 21:49 J -30992112.65 -30992112.59 -30992112.49 0.0089 0.0084
 Uranus -89560-03-22 23:30 J -30990285.65 -30990285.52 -30990285.39 0.0146 0.0123
 Saturn -89559-01-29 11:01 J -30989973.23 -30989973.04 -30989972.83 0.0274 0.0155
 Uranus -89559-03-27 20:51 J -30989915.78 -30989915.63 -30989915.44 0.0147 0.0111
 Saturn -89558-02-10 03:20 J -30989596.59 -30989596.36 -30989596.12 0.0274 0.0019
 Uranus -89558-04-02 03:49 J -30989545.55 -30989545.34 -30989545.14 0.0147 0.0078
 Saturn -89557-02-22 05:44 J -30989219.40 -30989219.26 -30989219.09 0.0275 0.0202
 Uranus -89557-04-06 05:59 J -30989175.49 -30989175.25 -30989174.99 0.0147 0.0050
 Uranus -89556-04-11 11:15 J -30988805.27 -30988805.03 -30988804.79 0.0147 0.0034
 Uranus -89555-04-16 18:27 J -30988435.00 -30988434.73 -30988434.47 0.0147 0.0007
 Uranus -89554-04-21 21:49 J -30988064.84 -30988064.59 -30988064.34 0.0147 0.0024
 Uranus -89553-04-26 09:20 J -30987694.34 -30987694.11 -30987693.85 0.0147 0.0056
 Uranus -89552-05-01 11:30 J -30987324.22 -30987324.02 -30987323.81 0.0147 0.0089
 Uranus -89551-05-07 02:23 J -30986953.57 -30986953.40 -30986953.19 0.0147 0.0103
 Mars -89551-06-28 11:30 J -30986901.21 -30986901.02 -30986900.83 0.1769 0.0924
 Uranus -89550-05-12 03:49 J -30986583.37 -30986583.34 -30986583.26 0.0146 0.0143
 Saturn -89545-08-01 14:51 J -30984675.05 -30984674.88 -30984674.68 0.0286 0.0187

Saturn	-89544-08-16 05:44 J	-30984295.51	-30984295.26	-30984295.01	0.0285	0.0018
Saturn	-89543-08-30 12:13 J	-30983916.15	-30983915.99	-30983915.82	0.0284	0.0214
Jupiter	-89534-09-27 00:42 J	-30980601.62	-30980601.47	-30980601.32	0.0527	0.0394
Saturn	-89530-01-24 21:20 J	-30979385.74	-30979385.61	-30979385.48	0.0273	0.0225
Mars	-89530-12-26 20:08 J	-30979049.75	-30979049.66	-30979049.56	0.1774	0.1538
Saturn	-89529-02-05 18:13 J	-30979008.97	-30979008.74	-30979008.51	0.0273	0.0062
Saturn	-89528-02-16 11:01 J	-30978632.26	-30978632.04	-30978631.81	0.0274	0.0119
Jupiter	-89528-03-17 19:54 J	-30978602.74	-30978602.67	-30978602.60	0.0502	0.0476
Jupiter	-89522-10-01 22:18 J	-30976213.81	-30976213.57	-30976213.32	0.0530	0.0029
Uranus	-89520-09-28 18:56 J	-30975485.76	-30975485.71	-30975485.62	0.0132	0.0126
Uranus	-89519-10-03 05:15 J	-30975116.45	-30975116.28	-30975116.08	0.0132	0.0095
Uranus	-89518-10-07 07:39 J	-30974747.35	-30974747.18	-30974746.99	0.0132	0.0090
Uranus	-89517-10-10 16:03 J	-30974378.05	-30974377.83	-30974377.59	0.0132	0.0060
Jupiter	-89516-03-22 05:30 J	-30974215.47	-30974215.27	-30974215.06	0.0499	0.0192
Saturn	-89516-07-26 00:13 J	-30974089.54	-30974089.49	-30974089.43	0.0285	0.0278
Uranus	-89516-10-14 16:47 J	-30974009.03	-30974008.80	-30974008.57	0.0132	0.0049
Saturn	-89515-08-09 14:08 J	-30973710.15	-30973709.91	-30973709.67	0.0285	0.0078
Uranus	-89515-10-18 23:59 J	-30973639.75	-30973639.50	-30973639.24	0.0132	0.0026
Saturn	-89514-08-24 02:37 J	-30973330.60	-30973330.39	-30973330.17	0.0284	0.0123
Uranus	-89514-10-22 23:30 J	-30973270.77	-30973270.52	-30973270.28	0.0131	0.0005
Uranus	-89513-10-26 05:59 J	-30972901.51	-30972901.25	-30972900.99	0.0131	0.0008
Uranus	-89512-10-30 04:32 J	-30972532.53	-30972532.31	-30972532.06	0.0131	0.0038
Uranus	-89511-11-03 10:32 J	-30972163.29	-30972163.06	-30972162.81	0.0132	0.0043
Jupiter	-89510-10-07 06:27 J	-30971825.38	-30971825.23	-30971825.08	0.0532	0.0391
Uranus	-89510-11-07 09:06 J	-30971794.31	-30971794.12	-30971793.91	0.0132	0.0075
Uranus	-89509-11-10 14:23 J	-30971425.09	-30971424.90	-30971424.69	0.0132	0.0082
Uranus	-89508-11-14 12:27 J	-30971056.10	-30971055.98	-30971055.82	0.0132	0.0108
Uranus	-89507-11-18 17:15 J	-30970686.86	-30970686.78	-30970686.67	0.0132	0.0122
Jupiter	-89504-03-26 18:42 J	-30969827.95	-30969827.72	-30969827.49	0.0497	0.0133
Saturn	-89500-01-30 07:54 J	-30968422.37	-30968422.17	-30968421.96	0.0274	0.0138

Saturn -89499-02-11 06:13 J -30968045.46 -30968045.24 -30968045.01 0.0274 0.0039
 Saturn -89498-02-23 08:37 J -30967668.27 -30967668.14 -30967667.99 0.0275 0.0221
 Mars -89497-01-05 18:27 J -30967351.87 -30967351.73 -30967351.60 0.1743 0.1254
 Jupiter -89492-03-30 20:23 J -30965440.75 -30965440.65 -30965440.53 0.0496 0.0432
 Neptune -89489-09-15 22:18 J -30964175.69 -30964175.57 -30964175.42 0.0088 0.0075
 Neptune -89488-09-18 12:56 J -30963808.16 -30963807.96 -30963807.74 0.0088 0.0055
 Neptune -89487-09-21 02:08 J -30963440.65 -30963440.41 -30963440.15 0.0088 0.0019
 Saturn -89486-08-03 17:30 J -30963123.98 -30963123.77 -30963123.57 0.0286 0.0170
 Neptune -89486-09-23 12:13 J -30963073.25 -30963072.99 -30963072.72 0.0088 0.0002
 Saturn -89485-08-17 04:18 J -30962744.57 -30962744.32 -30962744.05 0.0285 0.0033
 Neptune -89485-09-25 05:30 J -30962705.50 -30962705.27 -30962705.04 0.0088 0.0039
 Saturn -89484-08-31 09:20 J -30962365.26 -30962365.11 -30962364.95 0.0285 0.0228
 Neptune -89484-09-27 10:47 J -30962338.22 -30962338.05 -30962337.83 0.0088 0.0059
 Uranus -89477-03-18 01:11 J -30959974.49 -30959974.45 -30959974.39 0.0146 0.0143
 Pluto -89477-06-06 15:35 J -30959894.05 -30959893.85 -30959893.60 0.0067 0.0031
 Uranus -89476-03-23 08:08 J -30959604.25 -30959604.16 -30959604.05 0.0146 0.0134
 Uranus -89475-03-28 04:18 J -30959234.50 -30959234.32 -30959234.11 0.0147 0.0095
 Uranus -89474-04-02 11:59 J -30958864.20 -30958864.00 -30958863.78 0.0147 0.0078
 Uranus -89473-04-06 12:56 J -30958494.20 -30958493.96 -30958493.71 0.0147 0.0053
 Uranus -89472-04-11 19:54 J -30958123.92 -30958123.67 -30958123.43 0.0147 0.0018
 Mars -89472-07-02 00:13 J -30958042.70 -30958042.49 -30958042.29 0.1777 0.0119
 Saturn -89471-01-26 01:11 J -30957834.59 -30957834.45 -30957834.29 0.0273 0.0209
 Uranus -89471-04-17 01:39 J -30957753.69 -30957753.43 -30957753.16 0.0147 0.0005
 Saturn -89470-02-06 16:03 J -30957458.07 -30957457.83 -30957457.58 0.0273 0.0042
 Uranus -89470-04-22 06:42 J -30957383.45 -30957383.22 -30957382.97 0.0147 0.0036
 Saturn -89469-02-18 07:54 J -30957081.37 -30957081.17 -30957080.95 0.0274 0.0141
 Uranus -89469-04-26 17:44 J -30957013.00 -30957012.76 -30957012.52 0.0147 0.0058
 Uranus -89468-05-01 20:37 J -30956642.84 -30956642.64 -30956642.43 0.0147 0.0081
 Uranus -89467-05-07 10:32 J -30956272.20 -30956272.06 -30956271.89 0.0147 0.0119
 Uranus -89466-05-12 12:13 J -30955902.10 -30955901.99 -30955901.86 0.0146 0.0129

Saturn	-89457-07-27 03:49 J	-30952538.43	-30952538.34	-30952538.24	0.0286	0.0260
Saturn	-89456-08-10 20:51 J	-30952158.86	-30952158.63	-30952158.39	0.0285	0.0060
Saturn	-89455-08-25 10:03 J	-30951779.29	-30951779.08	-30951778.86	0.0285	0.0140
Jupiter	-89451-09-26 01:11 J	-30950286.58	-30950286.45	-30950286.30	0.0527	0.0431
Mars	-89451-12-29 15:35 J	-30950192.01	-30950191.85	-30950191.69	0.1767	0.1008
Saturn	-89441-02-01 10:32 J	-30946871.26	-30946871.06	-30946870.85	0.0273	0.0119
Saturn	-89440-02-12 09:35 J	-30946494.33	-30946494.10	-30946493.87	0.0274	0.0058
Saturn	-89439-02-24 05:44 J	-30946117.37	-30946117.26	-30946117.13	0.0275	0.0238
Jupiter	-89439-10-01 09:20 J	-30945898.33	-30945898.11	-30945897.88	0.0530	0.0052
Uranus	-89436-09-29 03:35 J	-30944804.46	-30944804.35	-30944804.20	0.0132	0.0112
Uranus	-89435-10-03 11:59 J	-30944435.14	-30944435.00	-30944434.82	0.0132	0.0104
Uranus	-89434-10-07 15:35 J	-30944066.04	-30944065.85	-30944065.63	0.0132	0.0074
Jupiter	-89433-03-21 19:11 J	-30943899.91	-30943899.70	-30943899.48	0.0500	0.0216
Uranus	-89433-10-10 23:01 J	-30943696.75	-30943696.54	-30943696.30	0.0132	0.0067
Uranus	-89432-10-15 01:11 J	-30943327.67	-30943327.45	-30943327.20	0.0132	0.0040
Uranus	-89431-10-19 07:54 J	-30942958.42	-30942958.17	-30942957.91	0.0132	0.0024
Uranus	-89430-10-23 09:06 J	-30942589.37	-30942589.12	-30942588.88	0.0131	0.0006
Uranus	-89429-10-26 14:08 J	-30942220.16	-30942219.91	-30942219.65	0.0131	0.0019
Uranus	-89428-10-30 14:08 J	-30941851.14	-30941850.91	-30941850.66	0.0131	0.0028
Saturn	-89427-08-04 13:11 J	-30941573.16	-30941572.95	-30941572.72	0.0286	0.0155
Jupiter	-89427-10-06 12:27 J	-30941510.16	-30941509.98	-30941509.80	0.0531	0.0349
Uranus	-89427-11-03 18:42 J	-30941481.95	-30941481.72	-30941481.48	0.0132	0.0058
Saturn	-89426-08-19 00:42 J	-30941193.72	-30941193.47	-30941193.21	0.0285	0.0047
Uranus	-89426-11-07 17:59 J	-30941112.95	-30941112.75	-30941112.52	0.0132	0.0064
Saturn	-89425-09-01 09:35 J	-30940814.22	-30940814.10	-30940813.97	0.0285	0.0244
Uranus	-89425-11-10 21:49 J	-30940743.75	-30940743.59	-30940743.39	0.0132	0.0093
Uranus	-89424-11-14 21:35 J	-30940374.73	-30940374.60	-30940374.44	0.0132	0.0103
Uranus	-89423-11-19 00:56 J	-30940005.53	-30940005.46	-30940005.35	0.0132	0.0123
Jupiter	-89421-03-25 19:54 J	-30939512.89	-30939512.67	-30939512.44	0.0498	0.0108
Saturn	-89412-01-26 23:30 J	-30936283.69	-30936283.52	-30936283.34	0.0273	0.0189

Saturn -89411-02-07 12:27 J -30935907.22 -30935906.98 -30935906.74 0.0273 0.0022
 Saturn -89410-02-19 10:32 J -30935530.25 -30935530.06 -30935529.87 0.0274 0.0158
 Jupiter -89409-03-30 13:54 J -30935125.05 -30935124.92 -30935124.79 0.0496 0.0407
 Neptune -89406-03-11 01:25 J -30934049.54 -30934049.44 -30934049.29 0.0089 0.0077
 Neptune -89405-03-12 18:27 J -30933681.94 -30933681.73 -30933681.48 0.0089 0.0042
 Neptune -89404-03-14 23:59 J -30933314.73 -30933314.50 -30933314.25 0.0089 0.0021
 Neptune -89403-03-17 13:39 J -30932947.18 -30932946.93 -30932946.66 0.0089 0.0015
 Neptune -89402-03-19 23:59 J -30932579.71 -30932579.50 -30932579.26 0.0089 0.0037
 Neptune -89401-03-21 09:06 J -30932212.25 -30932212.12 -30932211.93 0.0089 0.0071
 Saturn -89398-07-29 10:18 J -30930987.19 -30930987.07 -30930986.93 0.0286 0.0242
 Saturn -89397-08-12 02:51 J -30930607.63 -30930607.38 -30930607.13 0.0285 0.0043
 Saturn -89396-08-26 12:27 J -30930228.19 -30930227.98 -30930227.76 0.0285 0.0156
 Mars -89393-07-04 19:54 J -30929184.77 -30929184.67 -30929184.57 0.1783 0.1491
 Uranus -89392-03-23 17:30 J -30928922.91 -30928922.77 -30928922.59 0.0147 0.0114
 Uranus -89391-03-28 13:25 J -30928553.11 -30928552.94 -30928552.75 0.0147 0.0103
 Pluto -89391-12-11 20:51 J -30928294.87 -30928294.63 -30928294.39 0.0078 0.0015
 Uranus -89390-04-02 21:49 J -30928182.79 -30928182.59 -30928182.36 0.0147 0.0070
 Uranus -89389-04-06 21:35 J -30927812.85 -30927812.60 -30927812.35 0.0147 0.0044
 Uranus -89388-04-12 05:15 J -30927442.51 -30927442.28 -30927442.03 0.0147 0.0027
 Uranus -89387-04-17 09:35 J -30927072.37 -30927072.10 -30927071.84 0.0147 0.0014
 Uranus -89386-04-22 16:03 J -30926702.08 -30926701.83 -30926701.59 0.0147 0.0028
 Uranus -89385-04-27 01:11 J -30926331.69 -30926331.45 -30926331.20 0.0147 0.0062
 Uranus -89384-05-02 05:01 J -30925961.47 -30925961.29 -30925961.08 0.0147 0.0092
 Saturn -89383-01-21 19:11 J -30925696.77 -30925696.70 -30925696.63 0.0273 0.0260
 Uranus -89383-05-07 18:27 J -30925590.90 -30925590.73 -30925590.53 0.0147 0.0105
 Saturn -89382-02-02 15:35 J -30925320.06 -30925319.85 -30925319.62 0.0273 0.0099
 Uranus -89382-05-12 20:37 J -30925220.66 -30925220.64 -30925220.57 0.0146 0.0145
 Saturn -89381-02-14 09:06 J -30924943.35 -30924943.12 -30924942.88 0.0274 0.0077
 Saturn -89380-02-25 02:08 J -30924566.48 -30924566.41 -30924566.31 0.0275 0.0257
 Mars -89371-01-01 03:06 J -30921334.55 -30921334.37 -30921334.19 0.1762 0.0197

Saturn	-89368-08-05 11:44 J	-30920022.22	-30920022.01	-30920021.78	0.0286	0.0138
Jupiter	-89368-09-25 10:03 J	-30919971.18	-30919971.08	-30919970.98	0.0526	0.0465
Saturn	-89367-08-20 03:20 J	-30919642.60	-30919642.36	-30919642.12	0.0285	0.0065
Saturn	-89366-09-03 14:37 J	-30919262.97	-30919262.89	-30919262.78	0.0285	0.0261
Jupiter	-89356-09-30 12:13 J	-30915583.23	-30915582.99	-30915582.75	0.0528	0.0089
Saturn	-89353-01-28 20:08 J	-30914732.84	-30914732.66	-30914732.46	0.0273	0.0170
Uranus	-89353-09-25 05:01 J	-30914492.34	-30914492.29	-30914492.20	0.0132	0.0128
Saturn	-89352-02-08 14:37 J	-30914356.12	-30914355.89	-30914355.66	0.0273	0.0002
Uranus	-89352-09-29 12:42 J	-30914123.08	-30914122.97	-30914122.85	0.0132	0.0117
Saturn	-89351-02-20 15:35 J	-30913979.01	-30913978.85	-30913978.66	0.0274	0.0179
Uranus	-89351-10-03 19:54 J	-30913753.87	-30913753.67	-30913753.48	0.0132	0.0088
Jupiter	-89350-03-21 19:39 J	-30913584.88	-30913584.68	-30913584.48	0.0501	0.0244
Uranus	-89350-10-08 00:27 J	-30913384.66	-30913384.48	-30913384.27	0.0132	0.0083
Uranus	-89349-10-11 06:27 J	-30913015.48	-30913015.23	-30913014.99	0.0132	0.0052
Uranus	-89348-10-15 09:35 J	-30912646.32	-30912646.10	-30912645.86	0.0132	0.0044
Uranus	-89347-10-19 14:23 J	-30912277.16	-30912276.90	-30912276.63	0.0132	0.0019
Uranus	-89346-10-23 16:47 J	-30911908.04	-30911907.80	-30911907.55	0.0131	0.0001
Uranus	-89345-10-26 20:37 J	-30911538.89	-30911538.64	-30911538.37	0.0131	0.0014
Jupiter	-89344-10-05 08:51 J	-30911195.31	-30911195.13	-30911194.93	0.0531	0.0303
Uranus	-89344-10-30 22:32 J	-30911169.78	-30911169.56	-30911169.32	0.0131	0.0041
Uranus	-89343-11-04 01:54 J	-30910800.66	-30910800.42	-30910800.17	0.0132	0.0046
Uranus	-89342-11-08 03:20 J	-30910431.55	-30910431.36	-30910431.16	0.0132	0.0078
Uranus	-89341-11-11 05:30 J	-30910062.45	-30910062.27	-30910062.05	0.0132	0.0084
Uranus	-89340-11-15 06:42 J	-30909693.34	-30909693.22	-30909693.08	0.0132	0.0110
Saturn	-89339-07-30 15:20 J	-30909436.01	-30909435.86	-30909435.69	0.0286	0.0221
Uranus	-89339-11-19 08:08 J	-30909324.24	-30909324.16	-30909324.04	0.0132	0.0121
Jupiter	-89338-03-26 14:37 J	-30909197.12	-30909196.89	-30909196.66	0.0499	0.0090
Saturn	-89338-08-14 03:49 J	-30909056.60	-30909056.34	-30909056.08	0.0286	0.0023
Saturn	-89337-08-27 10:47 J	-30908677.25	-30908677.05	-30908676.84	0.0285	0.0174
Jupiter	-89326-03-30 16:18 J	-30904809.97	-30904809.82	-30904809.66	0.0497	0.0374

Saturn -89324-01-23 00:56 J -30904145.56 -30904145.46 -30904145.34 0.0273 0.0241
 Neptune -89324-09-18 00:56 J -30903907.61 -30903907.46 -30903907.25 0.0088 0.0063
 Saturn -89323-02-03 16:32 J -30903769.04 -30903768.81 -30903768.57 0.0273 0.0078
 Neptune -89323-09-20 09:35 J -30903540.33 -30903540.10 -30903539.83 0.0088 0.0035
 Saturn -89322-02-15 06:27 J -30903392.45 -30903392.23 -30903391.99 0.0274 0.0100
 Neptune -89322-09-23 04:03 J -30903172.59 -30903172.33 -30903172.07 0.0088 0.0004
 Saturn -89321-02-27 04:47 J -30903015.30 -30903015.30 -30903015.27 0.0274 0.0274
 Neptune -89321-09-24 09:35 J -30902805.35 -30902805.10 -30902804.84 0.0088 0.0022
 Neptune -89320-09-27 05:01 J -30902437.49 -30902437.29 -30902437.07 0.0088 0.0052
 Neptune -89319-09-29 10:18 J -30902070.18 -30902070.07 -30902069.92 0.0088 0.0077
 Uranus -89309-03-18 18:42 J -30898611.80 -30898611.72 -30898611.60 0.0146 0.0134
 Saturn -89309-08-06 17:01 J -30898471.01 -30898470.79 -30898470.56 0.0286 0.0117
 Uranus -89308-03-24 02:51 J -30898241.51 -30898241.38 -30898241.25 0.0147 0.0124
 Saturn -89308-08-21 09:49 J -30898091.32 -30898091.09 -30898090.85 0.0286 0.0084
 Uranus -89307-03-28 21:49 J -30897871.80 -30897871.59 -30897871.39 0.0147 0.0085
 Saturn -89307-09-04 19:54 J -30897711.73 -30897711.67 -30897711.60 0.0285 0.0275
 Uranus -89306-04-03 06:56 J -30897501.42 -30897501.21 -30897500.99 0.0147 0.0071
 Uranus -89305-04-07 05:44 J -30897131.51 -30897131.26 -30897131.01 0.0147 0.0045
 Uranus -89304-04-12 15:06 J -30896761.12 -30896760.87 -30896760.63 0.0147 0.0011
 Uranus -89303-04-17 18:13 J -30896391.01 -30896390.74 -30896390.48 0.0147 0.0002
 Uranus -89302-04-23 02:08 J -30896020.64 -30896020.41 -30896020.17 0.0147 0.0042
 Uranus -89301-04-27 09:35 J -30895650.33 -30895650.10 -30895649.84 0.0147 0.0062
 Uranus -89300-05-02 14:51 J -30895280.06 -30895279.88 -30895279.66 0.0147 0.0086
 Uranus -89299-05-08 02:51 J -30894909.51 -30894909.38 -30894909.21 0.0147 0.0121
 Uranus -89298-05-13 05:30 J -30894539.36 -30894539.27 -30894539.13 0.0147 0.0131
 Saturn -89294-01-29 23:30 J -30893181.71 -30893181.52 -30893181.32 0.0273 0.0149
 Saturn -89293-02-10 21:49 J -30892804.82 -30892804.59 -30892804.36 0.0273 0.0023
 Mars -89292-01-03 06:13 J -30892477.40 -30892477.24 -30892477.08 0.1756 0.0697
 Saturn -89292-02-21 19:11 J -30892427.86 -30892427.70 -30892427.52 0.0274 0.0197
 Jupiter -89285-09-24 10:18 J -30889656.12 -30889656.07 -30889656.01 0.0526 0.0512

Saturn	-89280-07-31 16:47 J	-30887884.98	-30887884.80	-30887884.60	0.0286	0.0198
Saturn	-89279-08-15 04:03 J	-30887505.58	-30887505.33	-30887505.07	0.0286	0.0005
Saturn	-89278-08-29 13:39 J	-30887126.10	-30887125.93	-30887125.74	0.0285	0.0195
Jupiter	-89273-09-29 11:15 J	-30885268.25	-30885268.03	-30885267.81	0.0528	0.0128
Uranus	-89269-09-25 12:27 J	-30883811.06	-30883810.98	-30883810.90	0.0132	0.0126
Uranus	-89268-09-29 20:51 J	-30883441.77	-30883441.63	-30883441.46	0.0132	0.0104
Jupiter	-89267-03-21 12:56 J	-30883269.15	-30883268.96	-30883268.76	0.0501	0.0264
Mars	-89267-06-28 03:20 J	-30883170.54	-30883170.36	-30883170.18	0.1760	0.0711
Uranus	-89267-10-04 02:08 J	-30883072.57	-30883072.41	-30883072.21	0.0132	0.0096
Uranus	-89266-10-08 09:06 J	-30882703.33	-30882703.12	-30882702.90	0.0132	0.0066
Saturn	-89265-01-25 04:47 J	-30882594.44	-30882594.30	-30882594.15	0.0273	0.0220
Uranus	-89265-10-11 13:39 J	-30882334.16	-30882333.93	-30882333.69	0.0132	0.0060
Saturn	-89264-02-04 15:49 J	-30882218.08	-30882217.84	-30882217.60	0.0273	0.0053
Uranus	-89264-10-15 18:56 J	-30881964.94	-30881964.71	-30881964.46	0.0132	0.0032
Saturn	-89263-02-16 09:35 J	-30881841.30	-30881841.10	-30881840.88	0.0274	0.0122
Uranus	-89263-10-19 22:32 J	-30881595.82	-30881595.56	-30881595.30	0.0131	0.0019
Uranus	-89262-10-24 02:37 J	-30881226.64	-30881226.39	-30881226.15	0.0131	0.0001
Jupiter	-89261-10-04 23:15 J	-30880879.73	-30880879.53	-30880879.33	0.0531	0.0271
Uranus	-89261-10-27 05:01 J	-30880857.55	-30880857.29	-30880857.03	0.0131	0.0023
Uranus	-89260-10-31 07:54 J	-30880488.40	-30880488.17	-30880487.92	0.0131	0.0033
Uranus	-89259-11-04 09:20 J	-30880119.33	-30880119.11	-30880118.86	0.0132	0.0062
Uranus	-89258-11-08 11:59 J	-30879750.20	-30879750.00	-30879749.78	0.0132	0.0067
Uranus	-89257-11-11 12:56 J	-30879381.13	-30879380.96	-30879380.77	0.0132	0.0096
Uranus	-89256-11-15 15:35 J	-30879011.99	-30879011.85	-30879011.69	0.0132	0.0103
Jupiter	-89255-03-25 15:20 J	-30878882.09	-30878881.86	-30878881.62	0.0499	0.0058
Uranus	-89255-11-19 15:49 J	-30878642.91	-30878642.84	-30878642.74	0.0132	0.0124
Saturn	-89250-08-09 01:39 J	-30876919.66	-30876919.43	-30876919.19	0.0286	0.0096
Saturn	-89249-08-22 15:06 J	-30876540.11	-30876539.87	-30876539.63	0.0285	0.0104
Mars	-89246-12-27 14:51 J	-30875318.00	-30875317.88	-30875317.75	0.1782	0.1188
Jupiter	-89243-03-30 02:23 J	-30874494.56	-30874494.40	-30874494.23	0.0498	0.0332

Neptune -89242-03-10 20:51 J -30874148.72 -30874148.63 -30874148.52 0.0089 0.0082
 Neptune -89241-03-12 02:37 J -30873781.54 -30873781.39 -30873781.18 0.0089 0.0060
 Neptune -89240-03-14 15:35 J -30873414.09 -30873413.85 -30873413.59 0.0089 0.0026
 Neptune -89239-03-17 02:37 J -30873046.64 -30873046.39 -30873046.14 0.0089 0.0004
 Neptune -89238-03-19 09:49 J -30872679.32 -30872679.09 -30872678.82 0.0089 0.0031
 Neptune -89237-03-21 01:39 J -30872311.62 -30872311.43 -30872311.22 0.0089 0.0052
 Neptune -89236-03-23 05:59 J -30871944.27 -30871944.25 -30871944.16 0.0089 0.0088
 Saturn -89235-01-31 07:11 J -30871630.40 -30871630.20 -30871629.99 0.0273 0.0126
 Saturn -89234-02-12 03:06 J -30871253.61 -30871253.37 -30871253.13 0.0273 0.0046
 Saturn -89233-02-23 19:39 J -30870876.82 -30870876.68 -30870876.52 0.0274 0.0218
 Pluto -89230-06-08 10:47 J -30869676.17 -30869676.05 -30869675.87 0.0067 0.0055
 Pluto -89229-06-09 06:13 J -30869309.44 -30869309.24 -30869309.01 0.0067 0.0042
 Uranus -89225-03-19 02:51 J -30867930.44 -30867930.38 -30867930.30 0.0146 0.0140
 Uranus -89224-03-24 10:32 J -30867560.22 -30867560.06 -30867559.87 0.0147 0.0104
 Uranus -89223-03-29 05:30 J -30867190.45 -30867190.27 -30867190.07 0.0147 0.0095
 Uranus -89222-04-03 15:35 J -30866820.08 -30866819.85 -30866819.62 0.0147 0.0060
 Uranus -89221-04-07 12:56 J -30866450.20 -30866449.96 -30866449.70 0.0147 0.0038
 Saturn -89221-08-01 20:08 J -30866333.85 -30866333.66 -30866333.45 0.0286 0.0177
 Uranus -89220-04-12 23:30 J -30866079.76 -30866079.52 -30866079.27 0.0147 0.0019
 Saturn -89220-08-16 11:15 J -30865954.28 -30865954.03 -30865953.78 0.0286 0.0022
 Uranus -89219-04-18 01:11 J -30865709.71 -30865709.45 -30865709.19 0.0147 0.0020
 Saturn -89219-08-30 23:59 J -30865574.64 -30865574.50 -30865574.33 0.0285 0.0218
 Uranus -89218-04-23 10:32 J -30865339.30 -30865339.06 -30865338.82 0.0147 0.0033
 Uranus -89217-04-27 16:47 J -30864969.03 -30864968.80 -30864968.56 0.0147 0.0067
 Uranus -89216-05-02 23:15 J -30864598.70 -30864598.53 -30864598.32 0.0147 0.0094
 Uranus -89215-05-08 10:18 J -30864228.23 -30864228.07 -30864227.88 0.0147 0.0108
 Uranus -89214-05-13 14:37 J -30863857.90 -30863857.89 -30863857.86 0.0147 0.0146
 Mars -89213-01-06 08:23 J -30863620.22 -30863620.15 -30863620.07 0.1751 0.1584
 Saturn -89206-01-26 05:59 J -30861043.41 -30861043.25 -30861043.07 0.0273 0.0198
 Saturn -89205-02-06 20:51 J -30860666.87 -30860666.63 -30860666.40 0.0273 0.0030

Saturn	-89204-02-17 19:39 J	-30860289.87	-30860289.68	-30860289.47	0.0274	0.0146
Saturn	-89192-07-26 17:15 J	-30855747.85	-30855747.78	-30855747.68	0.0286	0.0269
Saturn	-89191-08-10 08:23 J	-30855368.40	-30855368.15	-30855367.90	0.0286	0.0071
Saturn	-89190-08-24 17:30 J	-30854989.00	-30854988.77	-30854988.53	0.0285	0.0128
Jupiter	-89190-09-29 22:47 J	-30854952.77	-30854952.55	-30854952.32	0.0527	0.0150
Mars	-89188-07-01 06:13 J	-30854312.45	-30854312.24	-30854312.02	0.1767	0.0162
Uranus	-89185-09-25 19:11 J	-30853129.79	-30853129.70	-30853129.56	0.0132	0.0120
Jupiter	-89184-03-20 08:51 J	-30852954.32	-30852954.13	-30852953.94	0.0502	0.0306
Uranus	-89184-09-30 05:30 J	-30852760.39	-30852760.27	-30852760.10	0.0132	0.0108
Uranus	-89183-10-04 09:35 J	-30852391.30	-30852391.10	-30852390.88	0.0132	0.0080
Uranus	-89182-10-08 17:30 J	-30852021.96	-30852021.77	-30852021.55	0.0132	0.0076
Uranus	-89181-10-11 20:37 J	-30851652.89	-30851652.64	-30851652.39	0.0132	0.0044
Uranus	-89180-10-16 03:06 J	-30851283.60	-30851283.37	-30851283.13	0.0131	0.0037
Uranus	-89179-10-20 05:01 J	-30850914.55	-30850914.29	-30850914.02	0.0131	0.0011
Jupiter	-89178-10-04 16:47 J	-30850565.02	-30850564.80	-30850564.59	0.0529	0.0221
Uranus	-89178-10-24 10:47 J	-30850545.30	-30850545.05	-30850544.81	0.0131	0.0005
Saturn	-89177-01-21 18:56 J	-30850455.76	-30850455.71	-30850455.64	0.0273	0.0263
Uranus	-89177-10-27 11:59 J	-30850176.26	-30850176.00	-30850175.74	0.0131	0.0019
Saturn	-89176-02-01 14:23 J	-30850079.12	-30850078.90	-30850078.68	0.0273	0.0104
Uranus	-89176-10-31 16:47 J	-30849807.02	-30849806.80	-30849806.56	0.0131	0.0044
Saturn	-89175-02-13 04:18 J	-30849702.55	-30849702.32	-30849702.07	0.0273	0.0072
Uranus	-89175-11-04 17:01 J	-30849438.02	-30849437.79	-30849437.54	0.0132	0.0051
Saturn	-89174-02-24 22:47 J	-30849325.64	-30849325.55	-30849325.42	0.0274	0.0242
Uranus	-89174-11-08 21:20 J	-30849068.80	-30849068.61	-30849068.42	0.0132	0.0081
Uranus	-89173-11-11 20:37 J	-30848699.83	-30848699.64	-30848699.44	0.0132	0.0085
Jupiter	-89172-03-24 23:30 J	-30848566.74	-30848566.52	-30848566.30	0.0500	0.0019
Uranus	-89172-11-16 00:13 J	-30848330.61	-30848330.49	-30848330.36	0.0132	0.0112
Uranus	-89171-11-19 22:32 J	-30847961.65	-30847961.56	-30847961.44	0.0132	0.0120
Mars	-89167-12-29 21:35 J	-30846460.77	-30846460.60	-30846460.43	0.1776	0.0690
Jupiter	-89166-10-09 22:32 J	-30846176.56	-30846176.56	-30846176.54	0.0531	0.0530

Saturn -89162-08-04 07:39 J -30844782.39 -30844782.18 -30844781.97 0.0286 0.0151
 Saturn -89161-08-18 00:56 J -30844402.70 -30844402.46 -30844402.22 0.0286 0.0048
 Jupiter -89160-03-29 08:37 J -30844179.32 -30844179.14 -30844178.93 0.0498 0.0289
 Saturn -89160-09-01 13:11 J -30844023.08 -30844022.95 -30844022.82 0.0285 0.0240
 Neptune -89160-09-17 06:56 J -30844007.35 -30844007.21 -30844007.02 0.0088 0.0070
 Neptune -89159-09-20 02:23 J -30843639.60 -30843639.40 -30843639.17 0.0088 0.0051
 Neptune -89158-09-22 08:08 J -30843272.41 -30843272.16 -30843271.89 0.0088 0.0014
 Neptune -89157-09-24 03:49 J -30842904.60 -30842904.34 -30842904.07 0.0088 0.0006
 Neptune -89156-09-26 09:49 J -30842537.29 -30842537.09 -30842536.85 0.0088 0.0044
 Neptune -89155-09-29 02:23 J -30842169.57 -30842169.40 -30842169.19 0.0088 0.0063
 Saturn -89147-01-27 10:18 J -30839492.24 -30839492.07 -30839491.88 0.0273 0.0177
 Saturn -89146-02-08 07:11 J -30839115.43 -30839115.20 -30839114.97 0.0273 0.0006
 Saturn -89145-02-20 05:44 J -30838738.44 -30838738.26 -30838738.07 0.0274 0.0169
 Pluto -89144-12-12 16:03 J -30838077.05 -30838076.83 -30838076.60 0.0078 0.0031
 Uranus -89141-03-19 10:18 J -30837249.19 -30837249.07 -30837248.93 0.0146 0.0124
 Uranus -89140-03-24 17:30 J -30836878.91 -30836878.77 -30836878.60 0.0147 0.0115
 Uranus -89139-03-29 12:27 J -30836509.19 -30836508.98 -30836508.76 0.0147 0.0076
 Uranus -89138-04-03 22:47 J -30836138.77 -30836138.55 -30836138.32 0.0147 0.0064
 Uranus -89137-04-07 20:08 J -30835768.90 -30835768.66 -30835768.40 0.0147 0.0036
 Uranus -89136-04-13 07:54 J -30835398.42 -30835398.17 -30835397.92 0.0147 0.0006
 Uranus -89135-04-18 08:37 J -30835028.41 -30835028.14 -30835027.88 0.0147 0.0009
 Uranus -89134-04-23 19:11 J -30834657.93 -30834657.70 -30834657.46 0.0147 0.0049
 Uranus -89133-04-27 23:44 J -30834287.75 -30834287.51 -30834287.27 0.0147 0.0064
 Saturn -89133-07-28 01:25 J -30834196.56 -30834196.44 -30834196.29 0.0286 0.0243
 Uranus -89132-05-03 07:54 J -30833917.35 -30833917.17 -30833916.96 0.0147 0.0090
 Saturn -89132-08-11 14:08 J -30833817.17 -30833816.91 -30833816.66 0.0286 0.0046
 Uranus -89131-05-08 16:47 J -30833546.93 -30833546.80 -30833546.63 0.0147 0.0122
 Saturn -89131-08-26 00:13 J -30833437.70 -30833437.49 -30833437.28 0.0285 0.0151
 Uranus -89130-05-13 22:03 J -30833176.67 -30833176.58 -30833176.46 0.0147 0.0132
 Saturn -89118-01-23 04:03 J -30828904.42 -30828904.33 -30828904.20 0.0274 0.0242

Saturn	-89117-02-03 17:59 J	-30828527.98	-30828527.75	-30828527.51	0.0273	0.0079
Saturn	-89116-02-14 08:37 J	-30828151.35	-30828151.14	-30828150.91	0.0274	0.0098
Saturn	-89115-02-26 09:35 J	-30827774.15	-30827774.10	-30827774.03	0.0274	0.0264
Mars	-89109-07-04 18:13 J	-30825453.82	-30825453.74	-30825453.65	0.1774	0.1625
Jupiter	-89107-09-28 11:01 J	-30824638.26	-30824638.04	-30824637.83	0.0526	0.0217
Saturn	-89103-08-06 00:13 J	-30823230.71	-30823230.49	-30823230.27	0.0286	0.0125
Saturn	-89102-08-20 15:20 J	-30822851.10	-30822850.86	-30822850.62	0.0286	0.0072
Jupiter	-89101-03-19 20:23 J	-30822638.81	-30822638.65	-30822638.48	0.0503	0.0334
Saturn	-89101-09-02 22:32 J	-30822471.64	-30822471.56	-30822471.45	0.0285	0.0264
Uranus	-89101-09-26 02:23 J	-30822448.51	-30822448.40	-30822448.26	0.0132	0.0116
Uranus	-89100-09-30 14:23 J	-30822079.07	-30822078.90	-30822078.73	0.0132	0.0096
Uranus	-89099-10-04 16:47 J	-30821709.98	-30821709.80	-30821709.59	0.0132	0.0087
Uranus	-89098-10-09 02:51 J	-30821340.60	-30821340.38	-30821340.16	0.0132	0.0058
Uranus	-89097-10-12 04:32 J	-30820971.54	-30820971.31	-30820971.06	0.0132	0.0053
Uranus	-89096-10-16 12:56 J	-30820602.20	-30820601.96	-30820601.71	0.0131	0.0023
Jupiter	-89095-10-03 20:51 J	-30820249.85	-30820249.63	-30820249.41	0.0529	0.0157
Uranus	-89095-10-20 13:25 J	-30820233.19	-30820232.94	-30820232.67	0.0131	0.0014
Uranus	-89094-10-24 20:23 J	-30819863.89	-30819863.65	-30819863.40	0.0131	0.0009
Uranus	-89093-10-27 19:54 J	-30819494.91	-30819494.67	-30819494.40	0.0131	0.0027
Uranus	-89092-11-01 01:54 J	-30819125.65	-30819125.42	-30819125.18	0.0131	0.0037
Uranus	-89091-11-05 00:27 J	-30818756.70	-30818756.48	-30818756.25	0.0131	0.0065
Uranus	-89090-11-09 05:44 J	-30818387.45	-30818387.26	-30818387.04	0.0132	0.0070
Jupiter	-89089-03-24 05:01 J	-30818251.53	-30818251.29	-30818251.05	0.0500	0.0015
Uranus	-89089-11-12 03:49 J	-30818018.49	-30818018.34	-30818018.15	0.0132	0.0099
Saturn	-89088-01-28 20:51 J	-30817940.81	-30817940.63	-30817940.43	0.0273	0.0152
Uranus	-89088-11-16 09:06 J	-30817649.25	-30817649.12	-30817648.95	0.0132	0.0104
Mars	-89087-01-01 13:25 J	-30817603.13	-30817602.94	-30817602.75	0.1770	0.0469
Saturn	-89087-02-09 18:13 J	-30817563.97	-30817563.74	-30817563.50	0.0273	0.0020
Uranus	-89087-11-20 06:42 J	-30817280.27	-30817280.22	-30817280.12	0.0132	0.0126
Saturn	-89086-02-21 11:15 J	-30817187.20	-30817187.03	-30817186.84	0.0274	0.0192

Jupiter -89083-10-08 20:37 J -30815861.74 -30815861.64 -30815861.52 0.0531 0.0476
 Neptune -89077-03-11 16:47 J -30813880.94 -30813880.80 -30813880.64 0.0089 0.0072
 Jupiter -89077-03-28 11:59 J -30813864.19 -30813864.00 -30813863.80 0.0498 0.0245
 Neptune -89076-03-14 04:32 J -30813513.51 -30813513.31 -30813513.07 0.0089 0.0038
 Neptune -89075-03-16 12:13 J -30813146.25 -30813145.99 -30813145.74 0.0089 0.0016
 Neptune -89074-03-19 04:03 J -30812778.56 -30812778.33 -30812778.07 0.0089 0.0020
 Saturn -89074-07-30 09:49 J -30812645.25 -30812645.09 -30812644.91 0.0286 0.0216
 Neptune -89073-03-20 08:08 J -30812411.37 -30812411.16 -30812410.92 0.0089 0.0040
 Saturn -89073-08-13 00:27 J -30812265.73 -30812265.48 -30812265.23 0.0285 0.0020
 Neptune -89072-03-23 01:54 J -30812043.54 -30812043.42 -30812043.26 0.0089 0.0075
 Saturn -89072-08-27 14:08 J -30811886.10 -30811885.91 -30811885.72 0.0285 0.0178
 Jupiter -89065-04-01 22:18 J -30809476.62 -30809476.57 -30809476.52 0.0497 0.0485
 Mars -89062-06-25 19:39 J -30808296.77 -30808296.68 -30808296.60 0.1746 0.1591
 Saturn -89059-01-24 08:37 J -30807353.29 -30807353.14 -30807352.99 0.0274 0.0216
 Saturn -89058-02-04 21:20 J -30806976.84 -30806976.61 -30806976.37 0.0274 0.0054
 Uranus -89058-03-15 22:47 J -30806937.55 -30806937.55 -30806937.49 0.0146 0.0145
 Saturn -89057-02-16 18:42 J -30806599.92 -30806599.72 -30806599.51 0.0274 0.0120
 Uranus -89057-03-19 17:30 J -30806567.86 -30806567.77 -30806567.64 0.0146 0.0130
 Uranus -89056-03-25 00:27 J -30806197.66 -30806197.48 -30806197.27 0.0146 0.0095
 Uranus -89055-03-29 20:08 J -30805827.85 -30805827.66 -30805827.45 0.0147 0.0087
 Uranus -89054-04-04 06:13 J -30805457.47 -30805457.24 -30805456.99 0.0147 0.0052
 Uranus -89053-04-08 03:06 J -30805087.61 -30805087.37 -30805087.12 0.0147 0.0032
 Uranus -89052-04-13 14:51 J -30804717.13 -30804716.88 -30804716.63 0.0147 0.0012
 Uranus -89051-04-18 14:23 J -30804347.15 -30804346.90 -30804346.64 0.0147 0.0026
 Uranus -89050-04-24 02:08 J -30803976.65 -30803976.41 -30803976.17 0.0147 0.0038
 Uranus -89049-04-28 05:30 J -30803606.50 -30803606.27 -30803606.04 0.0147 0.0073
 Uranus -89048-05-03 15:20 J -30803236.04 -30803235.86 -30803235.66 0.0147 0.0095
 Uranus -89047-05-08 23:01 J -30802865.70 -30802865.54 -30802865.35 0.0147 0.0110
 Saturn -89044-08-07 16:32 J -30801679.05 -30801678.81 -30801678.57 0.0286 0.0097
 Saturn -89043-08-22 03:35 J -30801299.60 -30801299.35 -30801299.11 0.0286 0.0100

Saturn	-89029-01-31 09:20 J	-30796389.31	-30796389.11	-30796388.89	0.0273	0.0128
Saturn	-89028-02-11 01:54 J	-30796012.66	-30796012.42	-30796012.18	0.0273	0.0043
Saturn	-89027-02-22 16:47 J	-30795635.94	-30795635.80	-30795635.64	0.0274	0.0216
Jupiter	-89024-09-27 19:39 J	-30794322.88	-30794322.68	-30794322.48	0.0526	0.0261
Jupiter	-89018-03-19 23:44 J	-30792323.67	-30792323.51	-30792323.34	0.0503	0.0362
Uranus	-89018-09-23 07:11 J	-30792136.25	-30792136.20	-30792136.09	0.0133	0.0126
Uranus	-89017-09-26 10:32 J	-30791767.19	-30791767.06	-30791766.91	0.0132	0.0112
Uranus	-89016-09-30 23:15 J	-30791397.68	-30791397.53	-30791397.35	0.0132	0.0098
Saturn	-89015-08-01 00:42 J	-30791093.65	-30791093.47	-30791093.28	0.0286	0.0188
Uranus	-89015-10-05 00:42 J	-30791028.68	-30791028.47	-30791028.24	0.0132	0.0073
Saturn	-89014-08-15 17:59 J	-30790713.99	-30790713.75	-30790713.51	0.0285	0.0009
Uranus	-89014-10-09 11:15 J	-30790659.23	-30790659.03	-30790658.80	0.0132	0.0068
Saturn	-89013-08-29 07:54 J	-30790334.34	-30790334.17	-30790334.00	0.0285	0.0203
Uranus	-89013-10-12 11:44 J	-30790290.25	-30790290.01	-30790289.74	0.0132	0.0037
Jupiter	-89012-10-02 18:27 J	-30789934.97	-30789934.73	-30789934.49	0.0528	0.0110
Uranus	-89012-10-16 21:20 J	-30789920.85	-30789920.61	-30789920.37	0.0131	0.0030
Uranus	-89011-10-20 20:51 J	-30789551.89	-30789551.63	-30789551.37	0.0131	0.0004
Uranus	-89010-10-25 05:15 J	-30789182.52	-30789182.28	-30789182.03	0.0131	0.0009
Uranus	-89009-10-28 03:49 J	-30788813.58	-30788813.34	-30788813.07	0.0131	0.0026
Mars	-89008-01-04 06:13 J	-30788745.37	-30788745.24	-30788745.10	0.1763	0.1191
Uranus	-89008-11-01 11:30 J	-30788444.25	-30788444.02	-30788443.79	0.0131	0.0048
Uranus	-89007-11-05 08:37 J	-30788075.36	-30788075.14	-30788074.89	0.0131	0.0055
Jupiter	-89006-03-24 04:03 J	-30787936.55	-30787936.33	-30787936.11	0.0501	0.0065
Uranus	-89006-11-09 15:06 J	-30787706.04	-30787705.87	-30787705.67	0.0132	0.0085
Uranus	-89005-11-12 11:44 J	-30787337.18	-30787337.01	-30787336.80	0.0132	0.0087
Uranus	-89004-11-16 17:59 J	-30786967.86	-30786967.75	-30786967.62	0.0132	0.0114
Uranus	-89003-11-20 13:54 J	-30786599.00	-30786598.92	-30786598.79	0.0132	0.0121

89TH MILLENNIUM BCE

This is a list of transits of Moon in the 89th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-89000-01-25 11:15 J		-30785802.19	-30785802.03	-30785801.85	0.0274	0.0192	
Jupiter	-89000-10-07 22:47 J		-30785546.68	-30785546.55	-30785546.41	0.0530	0.0417	
Saturn	-88999-02-06 05:44 J		-30785425.49	-30785425.26	-30785425.03	0.0274	0.0028	
Saturn	-88998-02-18 06:13 J		-30785048.43	-30785048.24	-30785048.04	0.0274	0.0145	
Neptune	-88996-09-16 23:30 J		-30784106.55	-30784106.52	-30784106.44	0.0088	0.0087	
Neptune	-88995-09-19 05:30 J		-30783739.45	-30783739.27	-30783739.06	0.0088	0.0058	
Jupiter	-88994-03-28 17:30 J		-30783548.99	-30783548.77	-30783548.55	0.0499	0.0189	
Neptune	-88994-09-22 00:27 J		-30783371.71	-30783371.48	-30783371.21	0.0088	0.0030	
Neptune	-88993-09-23 08:08 J		-30783004.41	-30783004.16	-30783003.90	0.0088	0.0001	
Neptune	-88992-09-25 23:59 J		-30782636.75	-30782636.50	-30782636.24	0.0088	0.0026	
Neptune	-88991-09-28 10:47 J		-30782269.22	-30782269.05	-30782268.82	0.0088	0.0056	
Neptune	-88990-09-30 21:49 J		-30781901.68	-30781901.59	-30781901.46	0.0088	0.0081	
Saturn	-88986-07-26 15:20 J		-30780506.96	-30780506.86	-30780506.75	0.0286	0.0259	
Saturn	-88985-08-09 04:18 J		-30780127.57	-30780127.32	-30780127.06	0.0286	0.0067	
Saturn	-88984-08-23 13:54 J		-30779748.14	-30779747.92	-30779747.68	0.0286	0.0128	
Mars	-88983-06-28 18:56 J		-30779438.90	-30779438.71	-30779438.51	0.1752	0.0363	
Jupiter	-88982-04-01 21:20 J		-30779161.71	-30779161.61	-30779161.51	0.0497	0.0445	
Pluto	-88982-06-11 06:13 J		-30779091.50	-30779091.24	-30779090.97	0.0067	0.0018	
Uranus	-88974-03-16 07:11 J		-30776256.26	-30776256.20	-30776256.13	0.0146	0.0140	
Uranus	-88973-03-20 02:08 J		-30775886.54	-30775886.41	-30775886.24	0.0146	0.0117	
Uranus	-88972-03-25 08:23 J		-30775516.32	-30775516.15	-30775515.97	0.0147	0.0105	
Saturn	-88971-01-21 01:11 J		-30775214.52	-30775214.45	-30775214.38	0.0273	0.0258	

Uranus -88971-03-30 04:18 J -30775146.53 -30775146.32 -30775146.09 0.0147 0.0068
 Saturn -88970-02-01 17:15 J -30774838.01 -30774837.78 -30774837.56 0.0273 0.0101
 Uranus -88970-04-04 14:08 J -30774776.14 -30774775.91 -30774775.67 0.0147 0.0057
 Saturn -88969-02-13 06:13 J -30774461.47 -30774461.24 -30774461.00 0.0273 0.0070
 Uranus -88969-04-08 11:15 J -30774406.27 -30774406.03 -30774405.77 0.0147 0.0028
 Saturn -88968-02-24 02:37 J -30774084.50 -30774084.39 -30774084.27 0.0274 0.0238
 Uranus -88968-04-13 23:44 J -30774035.77 -30774035.51 -30774035.26 0.0147 0.0001
 Uranus -88967-04-18 22:32 J -30773665.81 -30773665.56 -30773665.30 0.0147 0.0015
 Uranus -88966-04-24 11:01 J -30773295.26 -30773295.04 -30773294.80 0.0147 0.0054
 Uranus -88965-04-28 12:42 J -30772925.19 -30772924.97 -30772924.72 0.0147 0.0066
 Uranus -88964-05-03 23:59 J -30772554.69 -30772554.50 -30772554.30 0.0147 0.0093
 Uranus -88963-05-09 05:30 J -30772184.40 -30772184.27 -30772184.11 0.0147 0.0122
 Uranus -88962-05-14 13:39 J -30771814.02 -30771813.93 -30771813.81 0.0147 0.0133
 Mars -88962-12-28 16:32 J -30771585.98 -30771585.81 -30771585.65 0.1789 0.0769
 Saturn -88956-08-02 20:37 J -30769541.83 -30769541.64 -30769541.43 0.0286 0.0157
 Saturn -88955-08-17 13:39 J -30769162.17 -30769161.93 -30769161.68 0.0285 0.0038
 Saturn -88954-08-31 23:59 J -30768782.64 -30768782.50 -30768782.34 0.0285 0.0228
 Saturn -88941-01-27 18:42 J -30764250.90 -30764250.72 -30764250.53 0.0274 0.0168
 Jupiter -88941-09-26 14:08 J -30764008.10 -30764007.91 -30764007.71 0.0525 0.0310
 Saturn -88940-02-07 17:01 J -30763874.02 -30763873.79 -30763873.56 0.0274 0.0003
 Saturn -88939-02-19 13:54 J -30763497.11 -30763496.92 -30763496.72 0.0274 0.0167
 Jupiter -88935-03-18 22:32 J -30762008.69 -30762008.56 -30762008.43 0.0504 0.0410
 Uranus -88934-09-23 16:03 J -30761454.88 -30761454.83 -30761454.74 0.0133 0.0128
 Uranus -88933-09-26 17:59 J -30761085.88 -30761085.75 -30761085.57 0.0132 0.0107
 Uranus -88932-10-01 08:08 J -30760716.34 -30760716.16 -30760715.97 0.0132 0.0088
 Uranus -88931-10-05 08:37 J -30760347.33 -30760347.14 -30760346.91 0.0132 0.0079
 Uranus -88930-10-09 21:06 J -30759977.84 -30759977.62 -30759977.38 0.0132 0.0051
 Jupiter -88929-10-01 15:20 J -30759620.08 -30759619.86 -30759619.63 0.0527 0.0035
 Uranus -88929-10-12 20:51 J -30759608.86 -30759608.63 -30759608.38 0.0132 0.0046
 Uranus -88928-10-17 07:39 J -30759239.43 -30759239.18 -30759238.93 0.0131 0.0015

Saturn -88927-07-28 02:51 J -30758955.53 -30758955.38 -30758955.22 0.0286 0.0230
 Uranus -88927-10-21 05:59 J -30758870.50 -30758870.25 -30758869.99 0.0131 0.0009
 Saturn -88926-08-11 15:49 J -30758576.09 -30758575.84 -30758575.58 0.0286 0.0038
 Uranus -88926-10-25 15:20 J -30758501.11 -30758500.86 -30758500.62 0.0131 0.0014
 Saturn -88925-08-25 04:18 J -30758196.52 -30758196.32 -30758196.11 0.0285 0.0155
 Uranus -88925-10-28 12:27 J -30758132.23 -30758131.98 -30758131.72 0.0131 0.0030
 Uranus -88924-11-01 20:37 J -30757762.87 -30757762.64 -30757762.41 0.0131 0.0042
 Jupiter -88923-03-23 14:08 J -30757621.14 -30757620.91 -30757620.68 0.0502 0.0104
 Uranus -88923-11-05 17:01 J -30757394.00 -30757393.79 -30757393.57 0.0131 0.0068
 Uranus -88922-11-10 00:27 J -30757024.67 -30757024.48 -30757024.26 0.0132 0.0073
 Uranus -88921-11-12 20:23 J -30756655.79 -30756655.65 -30756655.46 0.0132 0.0102
 Uranus -88920-11-17 04:03 J -30756286.46 -30756286.33 -30756286.17 0.0132 0.0104
 Uranus -88919-11-20 23:44 J -30755917.55 -30755917.51 -30755917.43 0.0132 0.0128
 Jupiter -88917-10-06 17:59 J -30755231.93 -30755231.75 -30755231.55 0.0530 0.0334
 Neptune -88913-03-11 06:42 J -30753980.32 -30753980.22 -30753980.09 0.0089 0.0078
 Saturn -88912-01-22 08:51 J -30753663.25 -30753663.13 -30753663.00 0.0273 0.0234
 Neptune -88912-03-13 12:13 J -30753613.17 -30753612.99 -30753612.76 0.0089 0.0055
 Saturn -88911-02-02 20:08 J -30753286.89 -30753286.66 -30753286.42 0.0273 0.0074
 Neptune -88911-03-16 05:15 J -30753245.52 -30753245.28 -30753245.03 0.0089 0.0022
 Jupiter -88911-03-27 17:30 J -30753233.98 -30753233.77 -30753233.55 0.0500 0.0152
 Saturn -88910-02-14 12:56 J -30752910.17 -30752909.96 -30752909.73 0.0273 0.0095
 Neptune -88910-03-18 09:20 J -30752878.36 -30752878.11 -30752877.86 0.0089 0.0000
 Saturn -88909-02-26 14:37 J -30752532.95 -30752532.89 -30752532.81 0.0274 0.0259
 Neptune -88909-03-20 02:37 J -30752510.62 -30752510.39 -30752510.14 0.0089 0.0033
 Neptune -88908-03-22 07:39 J -30752143.37 -30752143.18 -30752142.98 0.0089 0.0055
 Mars -88904-07-01 09:49 J -30750581.26 -30750581.09 -30750580.91 0.1758 0.0626
 Jupiter -88899-04-01 10:03 J -30748846.20 -30748846.08 -30748845.94 0.0497 0.0409
 Saturn -88897-08-04 14:37 J -30747990.11 -30747989.89 -30747989.67 0.0286 0.0128
 Pluto -88897-12-13 14:37 J -30747859.07 -30747858.89 -30747858.70 0.0078 0.0051
 Saturn -88896-08-19 03:49 J -30747610.59 -30747610.34 -30747610.08 0.0285 0.0067

Saturn	-88895-09-02 10:18 J	-30747231.17	-30747231.07	-30747230.94	0.0285	0.0255
Uranus	-88890-03-16 15:35 J	-30745574.94	-30745574.85	-30745574.75	0.0146	0.0135
Uranus	-88889-03-20 12:13 J	-30745205.11	-30745204.99	-30745204.83	0.0146	0.0119
Uranus	-88888-03-25 17:15 J	-30744834.97	-30744834.78	-30744834.56	0.0147	0.0086
Uranus	-88887-03-30 14:23 J	-30744465.10	-30744464.90	-30744464.68	0.0147	0.0079
Uranus	-88886-04-04 23:30 J	-30744094.76	-30744094.52	-30744094.27	0.0147	0.0043
Uranus	-88885-04-08 20:37 J	-30743724.89	-30743724.64	-30743724.39	0.0147	0.0026
Uranus	-88884-04-14 08:23 J	-30743354.40	-30743354.15	-30743353.89	0.0147	0.0005
Uranus	-88883-04-19 06:56 J	-30742984.46	-30742984.21	-30742983.96	0.0147	0.0032
Mars	-88883-12-30 23:30 J	-30742728.69	-30742728.52	-30742728.34	0.1783	0.0166
Saturn	-88882-01-29 04:47 J	-30742699.50	-30742699.30	-30742699.11	0.0274	0.0143
Uranus	-88882-04-24 19:54 J	-30742613.91	-30742613.67	-30742613.43	0.0147	0.0042
Saturn	-88881-02-10 00:13 J	-30742322.73	-30742322.49	-30742322.25	0.0274	0.0024
Uranus	-88881-04-28 20:37 J	-30742243.85	-30742243.64	-30742243.40	0.0147	0.0077
Saturn	-88880-02-20 16:03 J	-30741946.01	-30741945.83	-30741945.65	0.0274	0.0190
Uranus	-88880-05-04 09:06 J	-30741873.29	-30741873.12	-30741872.91	0.0147	0.0096
Uranus	-88879-05-09 13:39 J	-30741503.08	-30741502.93	-30741502.74	0.0147	0.0113
Saturn	-88868-07-29 14:23 J	-30737404.07	-30737403.90	-30737403.72	0.0286	0.0205
Saturn	-88867-08-13 07:25 J	-30737024.44	-30737024.19	-30737023.94	0.0286	0.0010
Saturn	-88866-08-27 22:18 J	-30736644.74	-30736644.57	-30736644.37	0.0286	0.0184
Jupiter	-88858-09-26 13:11 J	-30733693.10	-30733692.95	-30733692.79	0.0524	0.0378
Saturn	-88853-01-24 11:30 J	-30732112.17	-30732112.02	-30732111.86	0.0273	0.0211
Saturn	-88852-02-04 01:25 J	-30731735.67	-30731735.44	-30731735.21	0.0273	0.0050
Jupiter	-88852-03-18 10:03 J	-30731693.19	-30731693.08	-30731692.95	0.0504	0.0433
Saturn	-88851-02-15 23:15 J	-30731358.73	-30731358.53	-30731358.31	0.0273	0.0120
Uranus	-88850-09-24 01:54 J	-30730773.55	-30730773.42	-30730773.30	0.0133	0.0115
Uranus	-88849-09-27 02:51 J	-30730404.52	-30730404.38	-30730404.20	0.0132	0.0105
Uranus	-88848-10-01 17:15 J	-30730034.95	-30730034.78	-30730034.57	0.0132	0.0090
Uranus	-88847-10-05 17:15 J	-30729665.99	-30729665.78	-30729665.54	0.0132	0.0066
Jupiter	-88846-10-01 15:06 J	-30729305.12	-30729304.87	-30729304.63	0.0527	0.0028

Uranus	-88846-10-10 05:59 J	-30729296.46	-30729296.25	-30729296.01	0.0132	0.0060
Uranus	-88845-10-13 05:01 J	-30728927.53	-30728927.29	-30728927.03	0.0132	0.0029
Uranus	-88844-10-17 16:18 J	-30728558.06	-30728557.82	-30728557.57	0.0131	0.0025
Uranus	-88843-10-21 14:08 J	-30728189.17	-30728188.91	-30728188.65	0.0131	0.0003
Uranus	-88842-10-26 00:13 J	-30727819.73	-30727819.49	-30727819.24	0.0131	0.0013
Uranus	-88841-10-28 20:51 J	-30727450.88	-30727450.63	-30727450.38	0.0131	0.0030
Jupiter	-88840-03-22 13:54 J	-30727306.14	-30727305.92	-30727305.70	0.0502	0.0140
Uranus	-88840-11-02 05:44 J	-30727081.48	-30727081.26	-30727081.02	0.0131	0.0051
Uranus	-88839-11-06 01:25 J	-30726712.66	-30726712.44	-30726712.20	0.0132	0.0059
Saturn	-88838-08-07 02:51 J	-30726438.62	-30726438.38	-30726438.13	0.0286	0.0100
Uranus	-88838-11-10 09:49 J	-30726343.27	-30726343.09	-30726342.90	0.0132	0.0087
Saturn	-88837-08-20 13:11 J	-30726059.19	-30726058.95	-30726058.70	0.0285	0.0095
Uranus	-88837-11-13 04:47 J	-30725974.47	-30725974.30	-30725974.10	0.0132	0.0089
Saturn	-88836-09-03 19:54 J	-30725679.69	-30725679.67	-30725679.62	0.0285	0.0282
Uranus	-88836-11-17 12:42 J	-30725605.07	-30725604.97	-30725604.84	0.0132	0.0116
Uranus	-88835-11-21 07:25 J	-30725236.27	-30725236.19	-30725236.06	0.0132	0.0121
Jupiter	-88834-10-06 16:47 J	-30724916.99	-30724916.80	-30724916.60	0.0529	0.0285
Neptune	-88831-09-18 21:49 J	-30723838.76	-30723838.59	-30723838.40	0.0088	0.0065
Neptune	-88830-09-21 06:13 J	-30723471.44	-30723471.24	-30723471.01	0.0088	0.0046
Neptune	-88829-09-22 21:06 J	-30723103.88	-30723103.62	-30723103.34	0.0088	0.0010
Jupiter	-88828-03-27 04:03 J	-30722918.55	-30722918.33	-30722918.10	0.0500	0.0102
Neptune	-88828-09-25 09:35 J	-30722736.35	-30722736.10	-30722735.85	0.0088	0.0010
Neptune	-88827-09-27 18:42 J	-30722368.93	-30722368.72	-30722368.47	0.0088	0.0047
Neptune	-88826-09-30 11:59 J	-30722001.15	-30722001.00	-30722000.81	0.0088	0.0066
Mars	-88825-07-04 03:06 J	-30721723.41	-30721723.37	-30721723.32	0.1764	0.1705
Saturn	-88823-01-30 11:01 J	-30721148.25	-30721148.04	-30721147.82	0.0274	0.0122
Saturn	-88822-02-11 00:27 J	-30720771.72	-30720771.48	-30720771.23	0.0274	0.0048
Saturn	-88821-02-22 17:30 J	-30720394.90	-30720394.77	-30720394.60	0.0274	0.0214
Jupiter	-88816-03-31 05:44 J	-30718531.42	-30718531.26	-30718531.10	0.0498	0.0360
Saturn	-88809-07-31 03:49 J	-30715852.52	-30715852.34	-30715852.14	0.0286	0.0180

Saturn -88808-08-14 23:30 J -30715472.77 -30715472.52 -30715472.28 0.0286 0.0017
 Saturn -88807-08-29 13:11 J -30715093.11 -30715092.95 -30715092.77 0.0286 0.0208
 Uranus -88806-03-17 00:56 J -30714893.57 -30714893.46 -30714893.33 0.0146 0.0128
 Uranus -88805-03-20 23:01 J -30714523.70 -30714523.54 -30714523.37 0.0146 0.0106
 Uranus -88804-03-26 02:23 J -30714153.58 -30714153.40 -30714153.18 0.0147 0.0095
 Mars -88803-01-02 03:06 J -30713871.52 -30713871.37 -30713871.21 0.1778 0.0839
 Uranus -88803-03-31 00:42 J -30713783.69 -30713783.47 -30713783.24 0.0147 0.0059
 Uranus -88802-04-05 08:37 J -30713413.37 -30713413.14 -30713412.88 0.0147 0.0050
 Uranus -88801-04-09 06:56 J -30713043.46 -30713043.21 -30713042.96 0.0147 0.0020
 Uranus -88800-04-14 18:42 J -30712672.98 -30712672.72 -30712672.47 0.0147 0.0007
 Uranus -88799-04-19 17:01 J -30712303.04 -30712302.79 -30712302.54 0.0147 0.0021
 Uranus -88798-04-25 05:59 J -30711932.46 -30711932.25 -30711932.00 0.0147 0.0060
 Uranus -88797-04-29 06:27 J -30711562.46 -30711562.23 -30711562.00 0.0147 0.0069
 Uranus -88796-05-04 19:11 J -30711191.87 -30711191.70 -30711191.50 0.0147 0.0097
 Uranus -88795-05-09 22:32 J -30710821.70 -30710821.56 -30710821.41 0.0147 0.0123
 Saturn -88794-01-25 14:08 J -30710561.07 -30710560.91 -30710560.74 0.0273 0.0192
 Uranus -88794-05-15 09:49 J -30710451.19 -30710451.09 -30710450.99 0.0147 0.0134
 Saturn -88793-02-06 09:49 J -30710184.31 -30710184.09 -30710183.85 0.0273 0.0028
 Saturn -88792-02-17 07:39 J -30709807.39 -30709807.18 -30709806.98 0.0273 0.0141
 Saturn -88780-07-24 20:51 J -30705266.71 -30705266.63 -30705266.52 0.0286 0.0265
 Saturn -88779-08-08 10:32 J -30704887.31 -30704887.06 -30704886.81 0.0286 0.0074
 Mars -88778-06-25 09:49 J -30704566.24 -30704566.09 -30704565.94 0.1736 0.1129
 Saturn -88778-08-22 23:01 J -30704507.77 -30704507.54 -30704507.31 0.0285 0.0121
 Jupiter -88775-09-25 14:37 J -30703378.03 -30703377.89 -30703377.73 0.0524 0.0412
 Jupiter -88769-03-17 08:08 J -30701378.23 -30701378.16 -30701378.08 0.0504 0.0474
 Uranus -88767-09-19 18:13 J -30700461.81 -30700461.74 -30700461.62 0.0133 0.0124
 Uranus -88766-09-24 11:15 J -30700092.14 -30700092.03 -30700091.91 0.0133 0.0118
 Saturn -88765-01-20 22:32 J -30699973.63 -30699973.56 -30699973.48 0.0273 0.0257
 Uranus -88765-09-27 12:13 J -30699723.15 -30699722.99 -30699722.80 0.0132 0.0097
 Saturn -88764-01-31 11:15 J -30699597.25 -30699597.03 -30699596.79 0.0273 0.0100

Uranus -88764-10-02 03:20 J -30699353.56 -30699353.36 -30699353.16 0.0132 0.0080
 Saturn -88763-02-12 00:42 J -30699220.69 -30699220.47 -30699220.23 0.0274 0.0072
 Jupiter -88763-09-30 16:18 J -30698990.05 -30698989.82 -30698989.60 0.0527 0.0077
 Uranus -88763-10-06 03:06 J -30698984.58 -30698984.37 -30698984.14 0.0132 0.0070
 Saturn -88762-02-23 23:44 J -30698843.63 -30698843.51 -30698843.38 0.0274 0.0232
 Uranus -88762-10-10 16:32 J -30698615.04 -30698614.81 -30698614.56 0.0132 0.0043
 Uranus -88761-10-13 15:06 J -30698246.11 -30698245.87 -30698245.62 0.0132 0.0039
 Uranus -88760-10-18 02:51 J -30697876.63 -30697876.38 -30697876.13 0.0131 0.0008
 Uranus -88759-10-21 23:44 J -30697507.76 -30697507.51 -30697507.25 0.0131 0.0004
 Uranus -88758-10-26 10:03 J -30697138.32 -30697138.08 -30697137.83 0.0131 0.0020
 Jupiter -88757-03-22 01:11 J -30696990.67 -30696990.45 -30696990.24 0.0503 0.0186
 Uranus -88757-10-29 05:59 J -30696769.49 -30696769.25 -30696769.00 0.0131 0.0034
 Mars -88757-12-25 04:18 J -30696712.36 -30696712.32 -30696712.28 0.1804 0.1747
 Uranus -88756-11-02 15:06 J -30696400.09 -30696399.87 -30696399.63 0.0131 0.0047
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 Uranus -88754-11-10 19:39 J -30695661.88 -30695661.68 -30695661.47 0.0132 0.0075
 Uranus -88753-11-13 14:08 J -30695293.05 -30695292.91 -30695292.74 0.0132 0.0104
 Uranus -88752-11-17 22:47 J -30694923.68 -30694923.55 -30694923.38 0.0132 0.0105
 Jupiter -88751-10-05 20:37 J -30694601.86 -30694601.64 -30694601.42 0.0528 0.0218
 Uranus -88751-11-21 17:30 J -30694554.79 -30694554.77 -30694554.71 0.0132 0.0130
 Saturn -88750-08-02 17:44 J -30694300.96 -30694300.76 -30694300.55 0.0286 0.0157
 Neptune -88749-03-10 13:54 J -30694079.92 -30694079.92 -30694079.88 0.0089 0.0089
 Saturn -88749-08-16 11:01 J -30693921.29 -30693921.04 -30693920.79 0.0286 0.0038
 Neptune -88748-03-13 07:11 J -30693712.36 -30693712.20 -30693712.05 0.0089 0.0070
 Saturn -88748-08-30 20:51 J -30693541.78 -30693541.63 -30693541.47 0.0286 0.0230
 Neptune -88747-03-15 10:18 J -30693345.29 -30693345.07 -30693344.83 0.0089 0.0034
 Neptune -88746-03-18 03:35 J -30692977.60 -30692977.35 -30692977.09 0.0089 0.0014
 Neptune -88745-03-19 08:37 J -30692610.36 -30692610.14 -30692609.88 0.0089 0.0022
 Jupiter -88745-03-26 03:49 J -30692603.57 -30692603.34 -30692603.10 0.0501 0.0063
 Neptune -88744-03-21 22:32 J -30692242.78 -30692242.56 -30692242.31 0.0089 0.0042

Neptune -88743-03-24 07:54 J -30691875.27 -30691875.17 -30691875.02 0.0089 0.0077
 Saturn -88735-01-26 20:23 J -30689009.83 -30689009.65 -30689009.47 0.0273 0.0171
 Pluto -88735-06-12 08:08 J -30688873.42 -30688873.16 -30688872.88 0.0067 0.0013
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 Saturn -88733-02-19 08:08 J -30688256.36 -30688256.16 -30688255.96 0.0273 0.0160
 Jupiter -88733-03-30 19:25 J -30688215.85 -30688215.69 -30688215.52 0.0499 0.0341
 Mars -88724-01-04 13:39 J -30685014.01 -30685013.93 -30685013.84 0.1772 0.1587
 Uranus -88723-03-12 12:42 J -30684582.04 -30684581.97 -30684581.89 0.0146 0.0138
 Uranus -88722-03-17 10:18 J -30684212.19 -30684212.07 -30684211.93 0.0146 0.0125
 Uranus -88721-03-21 10:03 J -30683842.24 -30683842.08 -30683841.91 0.0146 0.0107
 Saturn -88721-07-26 01:25 J -30683715.57 -30683715.44 -30683715.30 0.0286 0.0242
 Uranus -88720-03-26 12:27 J -30683472.19 -30683471.98 -30683471.75 0.0147 0.0077
 Saturn -88720-08-09 18:13 J -30683335.99 -30683335.74 -30683335.50 0.0286 0.0051
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 Saturn -88719-08-24 10:32 J -30682956.27 -30682956.06 -30682955.85 0.0286 0.0144
 Uranus -88718-04-05 18:27 J -30682731.97 -30682731.73 -30682731.47 0.0147 0.0035
 Uranus -88717-04-09 17:01 J -30682362.03 -30682361.79 -30682361.54 0.0147 0.0019
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 Uranus -88712-05-05 05:44 J -30680510.44 -30680510.26 -30680510.06 0.0147 0.0098
 Uranus -88711-05-10 07:54 J -30680140.31 -30680140.17 -30680139.99 0.0147 0.0116
 Saturn -88706-01-21 22:47 J -30678422.67 -30678422.55 -30678422.43 0.0273 0.0237
 Saturn -88705-02-02 09:49 J -30678046.31 -30678046.09 -30678045.85 0.0273 0.0080
 Saturn -88704-02-13 05:15 J -30677669.49 -30677669.28 -30677669.06 0.0273 0.0090
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 Mars -88699-06-28 13:25 J -30675708.16 -30675707.94 -30675707.72 0.1743 0.0154
 Jupiter -88692-09-24 13:25 J -30673063.04 -30673062.94 -30673062.83 0.0523 0.0459
 Saturn -88691-08-04 00:42 J -30672749.70 -30672749.47 -30672749.24 0.0286 0.0136

Saturn -88690-08-18 14:23 J -30672370.15 -30672369.90 -30672369.64 0.0286 0.0061
 Saturn -88689-08-31 23:15 J -30671990.64 -30671990.53 -30671990.41 0.0286 0.0252
 Jupiter -88686-03-17 22:18 J -30671062.59 -30671062.57 -30671062.54 0.0506 0.0502
 Uranus -88683-09-20 03:49 J -30669780.34 -30669780.34 -30669780.28 0.0133 0.0132
 Uranus -88682-09-24 20:51 J -30669410.77 -30669410.63 -30669410.46 0.0133 0.0105
 Uranus -88681-09-27 22:18 J -30669041.74 -30669041.57 -30669041.39 0.0132 0.0096
 Jupiter -88680-09-29 19:54 J -30668674.90 -30668674.67 -30668674.43 0.0525 0.0136
 Uranus -88680-10-02 13:11 J -30668672.15 -30668671.95 -30668671.74 0.0132 0.0079
 Uranus -88679-10-06 12:42 J -30668303.19 -30668302.97 -30668302.73 0.0132 0.0058
 Uranus -88678-10-11 02:08 J -30667933.64 -30667933.41 -30667933.17 0.0132 0.0051
 Mars -88678-12-28 20:23 J -30667854.84 -30667854.65 -30667854.46 0.1798 0.0555
 Uranus -88677-10-14 00:13 J -30667564.74 -30667564.49 -30667564.24 0.0132 0.0021
 Saturn -88676-01-28 02:51 J -30667458.57 -30667458.38 -30667458.18 0.0272 0.0151
 Uranus -88676-10-18 11:44 J -30667195.25 -30667195.01 -30667194.75 0.0131 0.0018
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 Saturn -88674-02-20 05:44 J -30666705.43 -30666705.26 -30666705.07 0.0273 0.0179
 Jupiter -88674-03-22 02:37 J -30666675.60 -30666675.39 -30666675.17 0.0504 0.0218
 Uranus -88674-10-26 19:25 J -30666456.94 -30666456.69 -30666456.44 0.0131 0.0017
 Uranus -88673-10-29 15:20 J -30666088.11 -30666087.86 -30666087.62 0.0131 0.0036
 Uranus -88672-11-03 00:56 J -30665718.69 -30665718.46 -30665718.23 0.0131 0.0055
 Uranus -88671-11-06 19:39 J -30665349.88 -30665349.68 -30665349.44 0.0131 0.0064
 Uranus -88670-11-11 04:47 J -30664980.47 -30664980.30 -30664980.11 0.0132 0.0090
 Uranus -88669-11-13 23:15 J -30664611.69 -30664611.53 -30664611.33 0.0132 0.0091
 Jupiter -88668-10-04 14:51 J -30664287.10 -30664286.88 -30664286.66 0.0528 0.0169
 Uranus -88668-11-18 07:54 J -30664242.27 -30664242.17 -30664242.05 0.0132 0.0118
 Neptune -88667-09-18 01:39 J -30663938.49 -30663938.43 -30663938.31 0.0088 0.0083
 Uranus -88667-11-22 02:08 J -30663873.48 -30663873.41 -30663873.28 0.0132 0.0121
 Neptune -88666-09-20 15:49 J -30663571.03 -30663570.84 -30663570.60 0.0088 0.0055
 Neptune -88665-09-22 06:56 J -30663203.45 -30663203.21 -30663202.96 0.0088 0.0026

Neptune -88664-09-24 15:49 J -30662836.11 -30662835.84 -30662835.57 0.0088 0.0002
 Neptune -88663-09-27 09:35 J -30662468.33 -30662468.10 -30662467.85 0.0088 0.0029
 Jupiter -88662-03-26 18:56 J -30662287.93 -30662287.71 -30662287.48 0.0501 0.0032
 Saturn -88662-07-28 08:51 J -30662164.28 -30662164.13 -30662163.96 0.0286 0.0220
 Neptune -88662-09-29 15:20 J -30662101.06 -30662100.86 -30662100.66 0.0088 0.0057
 Saturn -88661-08-11 04:47 J -30661784.54 -30661784.30 -30661784.06 0.0286 0.0027
 Neptune -88661-10-01 10:03 J -30661733.14 -30661733.08 -30661732.96 0.0088 0.0083
 Saturn -88660-08-25 21:06 J -30661404.81 -30661404.62 -30661404.41 0.0286 0.0166
 Jupiter -88650-03-31 01:25 J -30657900.63 -30657900.44 -30657900.25 0.0499 0.0309
 Pluto -88650-12-15 14:51 J -30657640.95 -30657640.88 -30657640.77 0.0078 0.0072
 Pluto -88649-12-16 21:06 J -30657273.74 -30657273.62 -30657273.47 0.0077 0.0066
 Saturn -88647-01-22 19:54 J -30656871.82 -30656871.67 -30656871.53 0.0273 0.0217
 Saturn -88646-02-03 12:13 J -30656495.22 -30656494.99 -30656494.76 0.0273 0.0059
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 Saturn -88644-02-26 04:32 J -30655741.37 -30655741.31 -30655741.24 0.0274 0.0262
 Uranus -88639-03-12 22:03 J -30653900.61 -30653900.58 -30653900.54 0.0146 0.0144
 Uranus -88638-03-17 17:44 J -30653530.89 -30653530.76 -30653530.58 0.0146 0.0116
 Uranus -88637-03-21 18:56 J -30653160.88 -30653160.71 -30653160.51 0.0146 0.0097
 Uranus -88636-03-26 20:08 J -30652790.87 -30652790.66 -30652790.44 0.0147 0.0084
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 Uranus -88634-04-06 02:23 J -30652050.63 -30652050.40 -30652050.13 0.0147 0.0043
 Uranus -88633-04-10 02:37 J -30651680.63 -30651680.39 -30651680.14 0.0147 0.0011
 Uranus -88632-04-15 12:56 J -30651310.21 -30651309.96 -30651309.70 0.0147 0.0014
 Saturn -88632-08-04 23:01 J -30651198.77 -30651198.54 -30651198.29 0.0287 0.0114
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 Uranus -88630-04-26 01:11 J -30650569.67 -30650569.45 -30650569.21 0.0147 0.0064
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 Uranus -88628-05-05 15:06 J -30649829.03 -30649828.87 -30649828.67 0.0147 0.0102

Uranus -88627-05-10 17:01 J -30649458.92 -30649458.79 -30649458.65 0.0147 0.0125
 Uranus -88626-05-16 06:42 J -30649088.30 -30649088.22 -30649088.12 0.0147 0.0136
 Mars -88620-07-01 21:20 J -30646849.77 -30646849.61 -30646849.44 0.1750 0.1049
 Saturn -88617-01-30 03:35 J -30645907.56 -30645907.35 -30645907.13 0.0272 0.0130
 Saturn -88616-02-09 14:08 J -30645531.15 -30645530.91 -30645530.66 0.0272 0.0035
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 Jupiter -88609-09-23 20:37 J -30642747.71 -30642747.64 -30642747.55 0.0523 0.0493
 Saturn -88603-07-29 17:15 J -30640612.94 -30640612.78 -30640612.59 0.0286 0.0198
 Saturn -88602-08-13 12:27 J -30640233.23 -30640232.98 -30640232.73 0.0286 0.0006
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 Uranus -88595-10-06 22:47 J -30637621.76 -30637621.55 -30637621.31 0.0132 0.0061
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 Uranus -88591-10-22 19:11 J -30636144.95 -30636144.70 -30636144.45 0.0131 0.0002
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 Uranus -88589-10-30 00:56 J -30635406.69 -30635406.46 -30635406.21 0.0131 0.0038
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 Saturn -88586-02-16 09:35 J -30634567.31 -30634567.10 -30634566.88 0.0273 0.0125
 Uranus -88586-11-11 14:37 J -30634299.08 -30634298.89 -30634298.67 0.0131 0.0079

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 Jupiter -88585-10-04 06:42 J -30633971.45 -30633971.22 -30633971.00 0.0528 0.0139
 Uranus -88585-11-14 09:35 J -30633930.24 -30633930.10 -30633929.94 0.0132 0.0106
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 Uranus -88584-11-18 18:27 J -30633560.87 -30633560.73 -30633560.58 0.0132 0.0106
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 Neptune -88581-03-18 22:18 J -30632709.84 -30632709.57 -30632709.31 0.0089 0.0002
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 Neptune -88579-03-23 17:15 J -30631974.97 -30631974.78 -30631974.57 0.0089 0.0057
 Jupiter -88579-03-26 01:11 J -30631972.69 -30631972.45 -30631972.20 0.0502 0.0012
 Saturn -88574-07-23 04:18 J -30630027.36 -30630027.32 -30630027.26 0.0286 0.0281
 Mars -88573-06-22 13:39 J -30629691.98 -30629691.93 -30629691.88 0.1723 0.1662
 Saturn -88573-08-05 22:32 J -30629647.79 -30629647.56 -30629647.31 0.0287 0.0093
 Jupiter -88573-10-09 00:56 J -30629583.52 -30629583.46 -30629583.38 0.0529 0.0503
 Saturn -88572-08-20 17:01 J -30629268.01 -30629267.79 -30629267.56 0.0287 0.0102
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 Uranus -88555-03-13 07:39 J -30623219.29 -30623219.18 -30623219.05 0.0146 0.0126
 Uranus -88554-03-18 02:23 J -30622849.54 -30622849.40 -30622849.23 0.0146 0.0116
 Uranus -88553-03-22 05:01 J -30622479.46 -30622479.29 -30622479.10 0.0146 0.0095
 Uranus -88552-03-27 04:32 J -30622109.53 -30622109.31 -30622109.07 0.0147 0.0068
 Uranus -88551-04-01 05:59 J -30621739.45 -30621739.25 -30621739.01 0.0147 0.0061
 Uranus -88550-04-06 10:32 J -30621369.31 -30621369.06 -30621368.80 0.0147 0.0025
 Uranus -88549-04-10 11:30 J -30620999.26 -30620999.02 -30620998.77 0.0147 0.0012
 Uranus -88548-04-15 20:23 J -30620628.91 -30620628.65 -30620628.39 0.0147 0.0012

Uranus	-88547-04-20 20:23 J	-30620258.88	-30620258.65	-30620258.40	0.0147	0.0043
Uranus	-88546-04-26 09:06 J	-30619888.35	-30619888.12	-30619887.86	0.0147	0.0052
Uranus	-88545-04-30 09:35 J	-30619518.30	-30619518.10	-30619517.89	0.0147	0.0087
Uranus	-88544-05-06 00:42 J	-30619147.65	-30619147.47	-30619147.28	0.0147	0.0101
Saturn	-88544-07-30 21:20 J	-30619061.81	-30619061.61	-30619061.40	0.0287	0.0175
Uranus	-88543-05-11 01:39 J	-30618777.57	-30618777.43	-30618777.27	0.0147	0.0120
Saturn	-88543-08-14 12:42 J	-30618682.24	-30618681.97	-30618681.71	0.0286	0.0017
Saturn	-88542-08-28 23:44 J	-30618302.68	-30618302.51	-30618302.33	0.0286	0.0206
Saturn	-88529-01-26 02:51 J	-30613769.55	-30613769.38	-30613769.20	0.0272	0.0178
Saturn	-88528-02-05 18:27 J	-30613392.97	-30613392.73	-30613392.49	0.0272	0.0017
Saturn	-88527-02-17 05:44 J	-30613016.47	-30613016.26	-30613016.05	0.0273	0.0142
Jupiter	-88526-09-23 22:32 J	-30612432.58	-30612432.56	-30612432.53	0.0522	0.0518
Mars	-88519-01-03 08:23 J	-30610139.27	-30610139.15	-30610139.02	0.1785	0.1266
Uranus	-88516-09-16 20:51 J	-30608786.73	-30608786.63	-30608786.53	0.0133	0.0123
Saturn	-88515-07-24 05:01 J	-30608476.39	-30608476.29	-30608476.19	0.0286	0.0262
Uranus	-88515-09-21 01:25 J	-30608417.54	-30608417.44	-30608417.33	0.0133	0.0121
Saturn	-88514-08-08 02:51 J	-30608096.62	-30608096.38	-30608096.15	0.0287	0.0071
Uranus	-88514-09-25 17:01 J	-30608047.96	-30608047.79	-30608047.59	0.0133	0.0095
Jupiter	-88514-09-29 07:39 J	-30608044.39	-30608044.18	-30608043.96	0.0524	0.0209
Saturn	-88513-08-21 22:32 J	-30607716.78	-30607716.56	-30607716.33	0.0287	0.0122
Uranus	-88513-09-28 18:56 J	-30607678.88	-30607678.71	-30607678.50	0.0132	0.0088
Uranus	-88512-10-03 09:20 J	-30607309.31	-30607309.11	-30607308.87	0.0132	0.0070
Uranus	-88511-10-07 09:35 J	-30606940.32	-30606940.10	-30606939.85	0.0132	0.0050
Uranus	-88510-10-11 22:18 J	-30606570.82	-30606570.57	-30606570.33	0.0132	0.0042
Uranus	-88509-10-14 20:37 J	-30606201.89	-30606201.64	-30606201.39	0.0131	0.0013
Jupiter	-88508-03-20 22:18 J	-30606044.76	-30606044.57	-30606044.37	0.0505	0.0294
Uranus	-88508-10-19 07:39 J	-30605832.43	-30605832.18	-30605831.92	0.0131	0.0012
Uranus	-88507-10-23 04:47 J	-30605463.54	-30605463.30	-30605463.04	0.0131	0.0017
Uranus	-88506-10-27 15:06 J	-30605094.12	-30605093.87	-30605093.61	0.0131	0.0023
Uranus	-88505-10-30 11:15 J	-30604725.26	-30604725.03	-30604724.79	0.0131	0.0042

Uranus -88504-11-03 20:37 J -30604355.86 -30604355.64 -30604355.40 0.0131 0.0059
 Uranus -88503-11-07 16:03 J -30603987.02 -30603986.83 -30603986.60 0.0131 0.0069
 Neptune -88502-09-20 01:54 J -30603670.58 -30603670.42 -30603670.23 0.0088 0.0062
 Jupiter -88502-10-04 02:08 J -30603656.64 -30603656.41 -30603656.17 0.0526 0.0096
 Uranus -88502-11-12 00:56 J -30603617.64 -30603617.46 -30603617.28 0.0131 0.0093
 Neptune -88501-09-21 10:03 J -30603303.30 -30603303.08 -30603302.84 0.0088 0.0044
 Uranus -88501-11-14 19:39 J -30603248.83 -30603248.68 -30603248.48 0.0132 0.0094
 Saturn -88500-01-20 11:01 J -30603182.15 -30603182.04 -30603181.93 0.0272 0.0243
 Neptune -88500-09-24 05:30 J -30602935.52 -30602935.27 -30602935.00 0.0088 0.0007
 Uranus -88500-11-19 04:03 J -30602879.42 -30602879.33 -30602879.21 0.0132 0.0120
 Saturn -88499-01-31 23:30 J -30602805.73 -30602805.52 -30602805.29 0.0272 0.0087
 Neptune -88499-09-26 11:15 J -30602568.28 -30602568.03 -30602567.76 0.0088 0.0012
 Uranus -88499-11-22 23:01 J -30602510.62 -30602510.54 -30602510.43 0.0132 0.0122
 Saturn -88498-02-12 18:56 J -30602428.93 -30602428.71 -30602428.48 0.0272 0.0074
 Neptune -88498-09-29 06:42 J -30602200.43 -30602200.22 -30602199.99 0.0088 0.0049
 Saturn -88497-02-24 14:23 J -30602052.03 -30602051.90 -30602051.75 0.0272 0.0225
 Neptune -88497-09-30 12:42 J -30601833.11 -30601832.97 -30601832.78 0.0088 0.0068
 Jupiter -88496-03-25 08:23 J -30601657.38 -30601657.15 -30601656.93 0.0503 0.0037
 Mars -88494-06-26 04:03 J -30600834.50 -30600834.33 -30600834.15 0.1729 0.0651
 Jupiter -88490-10-09 06:56 J -30599268.31 -30599268.21 -30599268.11 0.0529 0.0472
 Pluto -88488-06-13 14:37 J -30598655.15 -30598654.89 -30598654.62 0.0067 0.0009
 Saturn -88485-07-31 19:25 J -30597510.90 -30597510.69 -30597510.45 0.0287 0.0152
 Jupiter -88484-03-30 00:13 J -30597269.69 -30597269.49 -30597269.29 0.0500 0.0272
 Saturn -88484-08-15 10:18 J -30597131.33 -30597131.07 -30597130.82 0.0287 0.0041
 Saturn -88483-08-30 00:13 J -30596751.63 -30596751.49 -30596751.33 0.0286 0.0228
 Mars -88473-12-26 04:03 J -30592980.45 -30592980.33 -30592980.21 0.1812 0.1335
 Uranus -88472-03-08 14:08 J -30592907.99 -30592907.91 -30592907.82 0.0145 0.0136
 Uranus -88471-03-13 16:32 J -30592537.89 -30592537.81 -30592537.70 0.0146 0.0134
 Saturn -88470-01-27 04:47 J -30592218.49 -30592218.30 -30592218.10 0.0272 0.0159
 Uranus -88470-03-18 10:18 J -30592168.24 -30592168.07 -30592167.88 0.0146 0.0104

Saturn	-88469-02-07 14:23 J	-30591842.14	-30591841.90	-30591841.65	0.0272	0.0006
Uranus	-88469-03-22 13:54 J	-30591798.10	-30591797.92	-30591797.72	0.0146	0.0088
Saturn	-88468-02-18 04:18 J	-30591465.50	-30591465.32	-30591465.12	0.0273	0.0160
Uranus	-88468-03-27 11:59 J	-30591428.22	-30591428.00	-30591427.78	0.0147	0.0074
Uranus	-88467-04-01 15:20 J	-30591058.08	-30591057.86	-30591057.62	0.0147	0.0042
Uranus	-88466-04-06 18:27 J	-30590687.98	-30590687.73	-30590687.47	0.0147	0.0034
Uranus	-88465-04-10 21:06 J	-30590317.86	-30590317.62	-30590317.37	0.0147	0.0003
Uranus	-88464-04-16 05:01 J	-30589947.55	-30589947.29	-30589947.03	0.0147	0.0019
Uranus	-88463-04-21 06:13 J	-30589577.48	-30589577.24	-30589577.00	0.0148	0.0034
Uranus	-88462-04-26 18:13 J	-30589206.97	-30589206.74	-30589206.51	0.0147	0.0069
Uranus	-88461-04-30 18:27 J	-30588836.93	-30588836.73	-30588836.50	0.0147	0.0077
Uranus	-88460-05-06 09:20 J	-30588466.28	-30588466.11	-30588465.92	0.0147	0.0105
Uranus	-88459-05-11 10:32 J	-30588096.19	-30588096.06	-30588095.93	0.0147	0.0127
Uranus	-88458-05-17 01:39 J	-30587725.50	-30587725.43	-30587725.33	0.0147	0.0138
Saturn	-88456-07-25 09:35 J	-30586925.22	-30586925.10	-30586924.95	0.0286	0.0241
Saturn	-88455-08-09 07:11 J	-30586545.44	-30586545.20	-30586544.95	0.0287	0.0049
Saturn	-88454-08-23 23:59 J	-30586165.71	-30586165.50	-30586165.27	0.0287	0.0143
Saturn	-88441-01-22 09:35 J	-30581631.22	-30581631.10	-30581630.96	0.0273	0.0226
Saturn	-88440-02-02 04:32 J	-30581254.53	-30581254.31	-30581254.09	0.0272	0.0066
Saturn	-88439-02-13 22:18 J	-30580877.79	-30580877.57	-30580877.34	0.0272	0.0093
Saturn	-88438-02-25 11:59 J	-30580501.11	-30580501.00	-30580500.87	0.0272	0.0237
Uranus	-88432-09-17 07:11 J	-30578105.22	-30578105.20	-30578105.13	0.0133	0.0131
Uranus	-88431-09-21 12:27 J	-30577736.12	-30577735.98	-30577735.80	0.0133	0.0103
Jupiter	-88431-09-28 02:51 J	-30577729.59	-30577729.38	-30577729.17	0.0523	0.0255
Uranus	-88430-09-26 03:06 J	-30577366.52	-30577366.37	-30577366.17	0.0133	0.0100
Uranus	-88429-09-29 06:27 J	-30576997.43	-30576997.23	-30576997.02	0.0132	0.0077
Uranus	-88428-10-03 19:54 J	-30576627.89	-30576627.67	-30576627.43	0.0132	0.0063
Uranus	-88427-10-07 20:51 J	-30576258.86	-30576258.63	-30576258.40	0.0132	0.0051
Saturn	-88426-08-02 18:56 J	-30575959.93	-30575959.71	-30575959.47	0.0287	0.0130
Uranus	-88426-10-12 08:51 J	-30575889.37	-30575889.13	-30575888.86	0.0132	0.0027

Jupiter -88425-03-20 07:54 J -30575729.34 -30575729.17 -30575729.00 0.0505 0.0326
 Saturn -88425-08-16 13:25 J -30575580.17 -30575579.94 -30575579.69 0.0287 0.0063
 Uranus -88425-10-15 08:08 J -30575520.41 -30575520.16 -30575519.91 0.0131 0.0023
 Saturn -88424-08-31 06:42 J -30575200.33 -30575200.22 -30575200.10 0.0286 0.0249
 Uranus -88424-10-19 18:56 J -30575150.97 -30575150.71 -30575150.45 0.0131 0.0006
 Uranus -88423-10-23 16:32 J -30574782.05 -30574781.81 -30574781.55 0.0131 0.0009
 Uranus -88422-10-28 01:54 J -30574412.66 -30574412.42 -30574412.16 0.0131 0.0032
 Uranus -88421-10-30 22:32 J -30574043.78 -30574043.56 -30574043.31 0.0131 0.0044
 Neptune -88420-03-12 03:35 J -30573911.39 -30573911.35 -30573911.27 0.0089 0.0086
 Uranus -88420-11-04 07:39 J -30573674.41 -30573674.18 -30573673.95 0.0131 0.0058
 Neptune -88419-03-14 10:18 J -30573544.23 -30573544.07 -30573543.91 0.0089 0.0068
 Jupiter -88419-10-03 11:01 J -30573341.26 -30573341.04 -30573340.81 0.0526 0.0061
 Uranus -88419-11-08 03:35 J -30573305.54 -30573305.35 -30573305.14 0.0131 0.0079
 Neptune -88418-03-16 21:06 J -30573176.85 -30573176.62 -30573176.36 0.0089 0.0032
 Uranus -88418-11-12 11:44 J -30572936.19 -30572936.01 -30572935.80 0.0131 0.0082
 Neptune -88417-03-18 08:37 J -30572809.38 -30572809.14 -30572808.89 0.0089 0.0012
 Uranus -88417-11-15 07:39 J -30572567.30 -30572567.18 -30572567.03 0.0131 0.0109
 Neptune -88416-03-20 15:20 J -30572442.11 -30572441.86 -30572441.60 0.0089 0.0023
 Uranus -88416-11-19 15:35 J -30572197.98 -30572197.85 -30572197.69 0.0132 0.0108
 Neptune -88415-03-23 07:11 J -30572074.40 -30572074.20 -30572073.96 0.0089 0.0043
 Mars -88415-06-28 14:37 J -30571977.08 -30571976.89 -30571976.70 0.1735 0.0094
 Neptune -88414-03-25 11:15 J -30571707.13 -30571707.03 -30571706.88 0.0089 0.0078
 Jupiter -88413-03-24 23:15 J -30571341.76 -30571341.53 -30571341.29 0.0503 0.0060
 Saturn -88411-01-28 02:37 J -30570667.59 -30570667.39 -30570667.17 0.0272 0.0138
 Saturn -88410-02-08 14:08 J -30570291.15 -30570290.91 -30570290.68 0.0272 0.0025
 Saturn -88409-02-20 09:35 J -30569914.27 -30569914.10 -30569913.92 0.0272 0.0175
 Jupiter -88407-10-08 16:32 J -30568952.93 -30568952.81 -30568952.68 0.0528 0.0451
 Pluto -88403-12-16 22:47 J -30567422.56 -30567422.55 -30567422.49 0.0078 0.0077
 Pluto -88402-12-19 04:18 J -30567055.38 -30567055.32 -30567055.23 0.0077 0.0074
 Jupiter -88401-03-29 02:51 J -30566954.58 -30566954.38 -30566954.18 0.0501 0.0248

Saturn -88397-07-26 14:08 J -30565374.06 -30565373.91 -30565373.74 0.0286 0.0220
 Saturn -88396-08-10 07:11 J -30564994.46 -30564994.20 -30564993.94 0.0287 0.0028
 Saturn -88395-08-24 20:37 J -30564614.84 -30564614.64 -30564614.41 0.0287 0.0165
 Mars -88394-12-29 10:18 J -30564123.24 -30564123.07 -30564122.89 0.1806 0.0234
 Uranus -88387-03-14 03:49 J -30561856.47 -30561856.34 -30561856.17 0.0146 0.0115
 Uranus -88386-03-18 20:23 J -30561486.80 -30561486.65 -30561486.46 0.0146 0.0107
 Uranus -88385-03-23 01:25 J -30561116.64 -30561116.44 -30561116.24 0.0146 0.0085
 Uranus -88384-03-27 22:03 J -30560746.82 -30560746.58 -30560746.35 0.0147 0.0060
 Uranus -88383-04-02 02:08 J -30560376.63 -30560376.41 -30560376.17 0.0147 0.0052
 Saturn -88382-01-23 14:23 J -30560080.05 -30560079.90 -30560079.75 0.0273 0.0206
 Uranus -88382-04-07 03:35 J -30560006.61 -30560006.35 -30560006.08 0.0147 0.0017
 Saturn -88381-02-04 08:37 J -30559703.37 -30559703.14 -30559702.90 0.0272 0.0045
 Uranus -88381-04-11 07:25 J -30559636.44 -30559636.19 -30559635.95 0.0147 0.0005
 Saturn -88380-02-14 20:23 J -30559326.86 -30559326.65 -30559326.41 0.0272 0.0111
 Uranus -88380-04-16 13:39 J -30559266.19 -30559265.93 -30559265.67 0.0147 0.0020
 Saturn -88379-02-26 10:47 J -30558950.13 -30558950.05 -30558949.96 0.0272 0.0253
 Uranus -88379-04-21 16:03 J -30558896.05 -30558895.83 -30558895.59 0.0148 0.0048
 Uranus -88378-04-27 03:20 J -30558525.59 -30558525.36 -30558525.10 0.0147 0.0057
 Uranus -88377-05-01 05:01 J -30558155.48 -30558155.29 -30558155.08 0.0147 0.0091
 Uranus -88376-05-06 19:39 J -30557784.85 -30557784.68 -30557784.48 0.0147 0.0104
 Uranus -88375-05-11 20:23 J -30557414.76 -30557414.65 -30557414.49 0.0147 0.0124
 Saturn -88367-08-04 01:39 J -30554408.66 -30554408.43 -30554408.20 0.0287 0.0108
 Saturn -88366-08-18 22:18 J -30554028.80 -30554028.57 -30554028.34 0.0287 0.0086
 Saturn -88365-09-01 14:23 J -30553648.98 -30553648.90 -30553648.81 0.0286 0.0270
 Saturn -88353-01-18 16:03 J -30549492.85 -30549492.83 -30549492.79 0.0273 0.0270
 Saturn -88352-01-29 02:23 J -30549116.61 -30549116.40 -30549116.18 0.0272 0.0117
 Saturn -88351-02-09 20:08 J -30548739.89 -30548739.66 -30548739.43 0.0272 0.0043
 Saturn -88350-02-21 15:49 J -30548363.00 -30548362.84 -30548362.66 0.0272 0.0192
 Uranus -88348-09-17 17:44 J -30547423.88 -30547423.76 -30547423.60 0.0133 0.0113
 Jupiter -88348-09-27 15:20 J -30547414.05 -30547413.86 -30547413.67 0.0523 0.0294

Uranus -88347-09-22 00:13 J -30547054.61 -30547054.49 -30547054.33 0.0133 0.0111
 Uranus -88346-09-26 14:51 J -30546685.09 -30546684.88 -30546684.68 0.0133 0.0084
 Uranus -88345-09-29 17:59 J -30546315.93 -30546315.75 -30546315.53 0.0132 0.0079
 Uranus -88344-10-04 06:42 J -30545946.44 -30545946.22 -30545945.97 0.0132 0.0060
 Uranus -88343-10-08 08:23 J -30545577.39 -30545577.15 -30545576.91 0.0132 0.0041
 Jupiter -88342-03-20 21:06 J -30545413.78 -30545413.62 -30545413.45 0.0506 0.0358
 Uranus -88342-10-12 18:56 J -30545207.95 -30545207.71 -30545207.44 0.0132 0.0034
 Uranus -88341-10-15 18:56 J -30544838.96 -30544838.71 -30544838.46 0.0132 0.0006
 Uranus -88340-10-20 05:01 J -30544469.55 -30544469.29 -30544469.03 0.0131 0.0005
 Uranus -88339-10-24 03:35 J -30544100.59 -30544100.35 -30544100.10 0.0131 0.0022
 Saturn -88338-07-28 15:35 J -30543823.04 -30543822.85 -30543822.65 0.0286 0.0194
 Neptune -88338-09-19 02:37 J -30543770.47 -30543770.39 -30543770.24 0.0088 0.0080
 Uranus -88338-10-28 12:42 J -30543731.22 -30543730.97 -30543730.71 0.0131 0.0028
 Saturn -88337-08-11 06:42 J -30543443.48 -30543443.22 -30543442.96 0.0287 0.0005
 Neptune -88337-09-20 23:01 J -30543402.73 -30543402.54 -30543402.31 0.0088 0.0053
 Uranus -88337-10-31 10:18 J -30543362.29 -30543362.07 -30543361.83 0.0131 0.0049
 Mars -88336-07-01 10:32 J -30543119.17 -30543119.06 -30543118.94 0.1741 0.1448
 Saturn -88336-08-25 22:03 J -30543063.77 -30543063.58 -30543063.39 0.0287 0.0187
 Neptune -88336-09-23 05:30 J -30543035.51 -30543035.27 -30543035.02 0.0088 0.0024
 Jupiter -88336-10-02 17:30 J -30543026.02 -30543025.77 -30543025.53 0.0525 0.0035
 Uranus -88336-11-04 18:42 J -30542992.94 -30542992.72 -30542992.49 0.0131 0.0064
 Neptune -88335-09-26 00:56 J -30542667.72 -30542667.46 -30542667.19 0.0088 0.0004
 Uranus -88335-11-08 15:35 J -30542624.04 -30542623.85 -30542623.64 0.0131 0.0073
 Neptune -88334-09-28 07:54 J -30542300.39 -30542300.17 -30542299.91 0.0088 0.0032
 Uranus -88334-11-12 22:47 J -30542254.71 -30542254.55 -30542254.36 0.0131 0.0096
 Neptune -88333-09-29 23:30 J -30541932.71 -30541932.52 -30541932.30 0.0088 0.0058
 Uranus -88333-11-15 19:25 J -30541885.85 -30541885.69 -30541885.52 0.0131 0.0096
 Neptune -88332-10-02 10:47 J -30541565.08 -30541565.05 -30541564.95 0.0088 0.0086
 Uranus -88332-11-20 01:54 J -30541516.50 -30541516.42 -30541516.31 0.0132 0.0122
 Uranus -88331-11-23 21:49 J -30541147.65 -30541147.59 -30541147.48 0.0132 0.0123

Jupiter	-88330-03-24 21:20 J	-30541026.84	-30541026.61	-30541026.39	0.0504	0.0098
Jupiter	-88324-10-07 15:06 J	-30538638.01	-30538637.87	-30538637.73	0.0527	0.0414
Saturn	-88323-01-24 20:23 J	-30538528.81	-30538528.65	-30538528.47	0.0273	0.0185
Saturn	-88322-02-05 08:51 J	-30538152.37	-30538152.13	-30538151.88	0.0272	0.0025
Saturn	-88321-02-16 19:39 J	-30537775.88	-30537775.68	-30537775.46	0.0272	0.0131
Saturn	-88320-02-27 16:03 J	-30537398.86	-30537398.83	-30537398.78	0.0272	0.0268
Jupiter	-88318-03-29 14:37 J	-30536639.09	-30536638.89	-30536638.68	0.0502	0.0223
Mars	-88315-12-31 20:51 J	-30535265.80	-30535265.63	-30535265.46	0.1800	0.0685
Saturn	-88309-07-21 14:51 J	-30533236.95	-30533236.88	-30533236.79	0.0286	0.0268
Saturn	-88308-08-05 11:59 J	-30532857.23	-30532857.00	-30532856.76	0.0287	0.0083
Saturn	-88307-08-20 06:13 J	-30532477.47	-30532477.24	-30532477.00	0.0287	0.0107
Uranus	-88304-03-09 11:30 J	-30531545.13	-30531545.02	-30531544.89	0.0145	0.0125
Uranus	-88303-03-14 15:06 J	-30531174.99	-30531174.87	-30531174.73	0.0146	0.0123
Uranus	-88302-03-19 06:56 J	-30530805.39	-30530805.21	-30530805.00	0.0146	0.0093
Uranus	-88301-03-23 12:27 J	-30530435.18	-30530434.98	-30530434.77	0.0146	0.0080
Uranus	-88300-03-28 07:54 J	-30530065.39	-30530065.17	-30530064.93	0.0147	0.0065
Uranus	-88299-04-02 13:54 J	-30529695.15	-30529694.92	-30529694.67	0.0147	0.0034
Uranus	-88298-04-07 14:23 J	-30529325.15	-30529324.90	-30529324.64	0.0147	0.0027
Uranus	-88297-04-11 19:39 J	-30528954.93	-30528954.68	-30528954.44	0.0147	0.0007
Uranus	-88296-04-17 00:56 J	-30528584.72	-30528584.46	-30528584.20	0.0148	0.0025
Uranus	-88295-04-22 04:32 J	-30528214.54	-30528214.31	-30528214.06	0.0148	0.0041
Saturn	-88294-01-19 16:18 J	-30527941.91	-30527941.82	-30527941.72	0.0273	0.0249
Uranus	-88294-04-27 14:51 J	-30527844.10	-30527843.88	-30527843.64	0.0148	0.0074
Saturn	-88293-01-31 08:37 J	-30527565.35	-30527565.14	-30527564.92	0.0272	0.0096
Uranus	-88293-05-01 17:01 J	-30527473.99	-30527473.79	-30527473.57	0.0147	0.0080
Saturn	-88292-02-11 03:49 J	-30527188.56	-30527188.34	-30527188.11	0.0272	0.0064
Uranus	-88292-05-07 06:56 J	-30527103.38	-30527103.21	-30527103.03	0.0147	0.0110
Saturn	-88291-02-22 17:59 J	-30526811.90	-30526811.75	-30526811.58	0.0272	0.0206
Uranus	-88291-05-12 07:54 J	-30526733.27	-30526733.17	-30526733.03	0.0147	0.0130
Uranus	-88290-05-17 23:59 J	-30526362.57	-30526362.50	-30526362.41	0.0147	0.0139

Mars -88289-06-22 09:49 J -30525961.20 -30525961.09 -30525960.97 0.1715 0.1419
 Saturn -88279-07-29 17:59 J -30522271.95 -30522271.75 -30522271.53 0.0286 0.0169
 Saturn -88278-08-13 12:27 J -30521892.23 -30521891.98 -30521891.73 0.0287 0.0019
 Saturn -88277-08-27 07:11 J -30521512.36 -30521512.20 -30521512.03 0.0287 0.0207
 Uranus -88265-09-13 15:35 J -30517111.93 -30517111.85 -30517111.74 0.0134 0.0124
 Jupiter -88265-09-26 17:01 J -30517098.98 -30517098.79 -30517098.60 0.0522 0.0336
 Saturn -88264-01-25 22:47 J -30516977.74 -30516977.55 -30516977.35 0.0273 0.0160
 Uranus -88264-09-18 05:30 J -30516742.37 -30516742.27 -30516742.14 0.0133 0.0120
 Saturn -88263-02-06 08:51 J -30516601.37 -30516601.13 -30516600.88 0.0272 0.0004
 Uranus -88263-09-22 12:56 J -30516373.13 -30516372.96 -30516372.77 0.0133 0.0092
 Saturn -88262-02-18 02:23 J -30516224.59 -30516224.40 -30516224.20 0.0272 0.0147
 Uranus -88262-09-27 01:25 J -30516003.62 -30516003.44 -30516003.23 0.0133 0.0090
 Uranus -88261-09-30 06:27 J -30515634.44 -30515634.23 -30515634.01 0.0132 0.0067
 Uranus -88260-10-04 17:44 J -30515264.98 -30515264.76 -30515264.50 0.0132 0.0056
 Jupiter -88259-03-19 16:32 J -30515098.93 -30515098.81 -30515098.66 0.0507 0.0406
 Uranus -88259-10-08 20:23 J -30514895.87 -30514895.65 -30514895.40 0.0132 0.0042
 Uranus -88258-10-13 06:56 J -30514526.46 -30514526.21 -30514525.94 0.0132 0.0019
 Uranus -88257-10-16 07:54 J -30514157.41 -30514157.17 -30514156.92 0.0132 0.0015
 Uranus -88256-10-20 17:01 J -30513788.05 -30513787.79 -30513787.53 0.0131 0.0013
 Neptune -88255-03-13 20:23 J -30513643.77 -30513643.65 -30513643.49 0.0089 0.0074
 Uranus -88255-10-24 16:18 J -30513419.06 -30513418.82 -30513418.57 0.0131 0.0015
 Neptune -88254-03-16 08:51 J -30513276.31 -30513276.13 -30513275.90 0.0089 0.0051
 Uranus -88254-10-28 23:59 J -30513049.73 -30513049.50 -30513049.24 0.0131 0.0039
 Neptune -88253-03-17 14:51 J -30512909.13 -30512908.88 -30512908.62 0.0089 0.0020
 Jupiter -88253-10-01 12:42 J -30512711.20 -30512710.97 -30512710.74 0.0524 0.0023
 Uranus -88253-10-31 22:32 J -30512680.78 -30512680.56 -30512680.33 0.0131 0.0049
 Neptune -88252-03-20 07:11 J -30512541.45 -30512541.20 -30512540.95 0.0089 0.0003
 Uranus -88252-11-05 05:44 J -30512311.47 -30512311.26 -30512311.02 0.0131 0.0063
 Neptune -88251-03-22 10:18 J -30512174.29 -30512174.07 -30512173.82 0.0089 0.0034
 Uranus -88251-11-09 03:20 J -30511942.53 -30511942.36 -30511942.15 0.0131 0.0083

Neptune -88250-03-25 03:35 J -30511806.53 -30511806.35 -30511806.14 0.0089 0.0057
 Saturn -88250-07-24 04:03 J -30511685.45 -30511685.33 -30511685.18 0.0286 0.0241
 Uranus -88250-11-13 10:18 J -30511573.25 -30511573.07 -30511572.86 0.0131 0.0085
 Saturn -88249-08-06 21:49 J -30511305.84 -30511305.59 -30511305.33 0.0287 0.0058
 Uranus -88249-11-16 07:54 J -30511204.29 -30511204.17 -30511204.03 0.0132 0.0111
 Saturn -88248-08-21 11:59 J -30510926.23 -30510926.00 -30510925.76 0.0287 0.0131
 Uranus -88248-11-20 13:39 J -30510835.05 -30510834.93 -30510834.77 0.0132 0.0110
 Jupiter -88247-03-24 12:27 J -30510711.20 -30510710.98 -30510710.76 0.0504 0.0124
 Pluto -88242-06-14 04:03 J -30508803.34 -30508803.33 -30508803.25 0.0066 0.0066
 Pluto -88241-06-15 02:37 J -30508436.63 -30508436.39 -30508436.15 0.0067 0.0027
 Jupiter -88241-10-06 20:51 J -30508322.79 -30508322.63 -30508322.45 0.0527 0.0364
 Mars -88235-01-03 19:54 J -30506407.76 -30506407.67 -30506407.58 0.1793 0.1586
 Saturn -88235-01-20 23:30 J -30506390.64 -30506390.52 -30506390.39 0.0273 0.0226
 Jupiter -88235-03-28 16:32 J -30506324.02 -30506323.81 -30506323.58 0.0502 0.0199
 Saturn -88234-02-01 18:27 J -30506013.96 -30506013.73 -30506013.51 0.0272 0.0071
 Saturn -88233-02-13 08:23 J -30505637.37 -30505637.15 -30505636.90 0.0272 0.0084
 Saturn -88232-02-23 19:54 J -30505260.80 -30505260.67 -30505260.52 0.0272 0.0221
 Jupiter -88223-04-02 06:56 J -30501936.22 -30501936.21 -30501936.20 0.0500 0.0498
 Uranus -88221-03-05 11:01 J -30501233.10 -30501233.04 -30501232.94 0.0145 0.0137
 Uranus -88220-03-09 23:59 J -30500863.58 -30500863.50 -30500863.39 0.0145 0.0134
 Saturn -88220-07-31 04:18 J -30500720.53 -30500720.32 -30500720.10 0.0286 0.0142
 Uranus -88219-03-15 04:03 J -30500493.49 -30500493.33 -30500493.14 0.0146 0.0103
 Saturn -88219-08-15 01:11 J -30500340.69 -30500340.45 -30500340.21 0.0287 0.0045
 Uranus -88218-03-19 19:39 J -30500123.85 -30500123.68 -30500123.47 0.0146 0.0097
 Saturn -88218-08-29 19:39 J -30499960.82 -30499960.68 -30499960.53 0.0287 0.0230
 Uranus -88217-03-24 01:25 J -30499753.63 -30499753.44 -30499753.21 0.0146 0.0075
 Uranus -88216-03-28 20:23 J -30499383.88 -30499383.65 -30499383.40 0.0147 0.0052
 Uranus -88215-04-03 02:51 J -30499013.61 -30499013.38 -30499013.14 0.0147 0.0043
 Uranus -88214-04-08 02:08 J -30498643.67 -30498643.41 -30498643.15 0.0147 0.0007
 Uranus -88213-04-12 08:23 J -30498273.39 -30498273.15 -30498272.90 0.0147 0.0003

Uranus -88212-04-17 12:27 J -30497903.24 -30497902.98 -30497902.72 0.0148 0.0028
 Uranus -88211-04-22 17:44 J -30497532.99 -30497532.76 -30497532.53 0.0148 0.0054
 Uranus -88210-04-28 02:51 J -30497162.61 -30497162.38 -30497162.13 0.0148 0.0062
 Mars -88210-06-26 14:08 J -30497103.12 -30497102.91 -30497102.69 0.1721 0.0135
 Uranus -88209-05-02 05:59 J -30496792.42 -30496792.25 -30496792.05 0.0147 0.0097
 Uranus -88208-05-07 19:11 J -30496421.86 -30496421.70 -30496421.50 0.0147 0.0108
 Uranus -88207-05-12 21:06 J -30496051.73 -30496051.62 -30496051.48 0.0147 0.0127
 Saturn -88205-01-27 23:15 J -30495426.73 -30495426.53 -30495426.31 0.0273 0.0134
 Saturn -88204-02-07 14:37 J -30495050.12 -30495049.89 -30495049.65 0.0273 0.0020
 Saturn -88203-02-19 11:59 J -30494673.17 -30494673.00 -30494672.80 0.0272 0.0167
 Saturn -88191-07-25 13:54 J -30490134.08 -30490133.92 -30490133.73 0.0286 0.0213
 Saturn -88190-08-09 05:15 J -30489754.54 -30489754.28 -30489754.02 0.0287 0.0029
 Saturn -88189-08-22 19:25 J -30489374.90 -30489374.69 -30489374.47 0.0287 0.0157
 Mars -88189-12-26 14:37 J -30489249.06 -30489248.89 -30489248.72 0.1820 0.0897
 Jupiter -88182-09-26 13:11 J -30486784.10 -30486783.95 -30486783.81 0.0521 0.0402
 Uranus -88181-09-14 04:18 J -30486430.38 -30486430.32 -30486430.22 0.0134 0.0127
 Uranus -88180-09-18 17:15 J -30486060.93 -30486060.78 -30486060.58 0.0133 0.0102
 Uranus -88179-09-23 02:08 J -30485691.56 -30485691.41 -30485691.24 0.0133 0.0100
 Uranus -88178-09-27 13:39 J -30485322.14 -30485321.93 -30485321.69 0.0133 0.0074
 Uranus -88177-09-30 19:25 J -30484952.89 -30484952.69 -30484952.47 0.0132 0.0069
 Saturn -88176-01-22 10:32 J -30484839.22 -30484839.06 -30484838.91 0.0273 0.0201
 Jupiter -88176-03-19 07:54 J -30484783.28 -30484783.17 -30484783.06 0.0507 0.0439
 Uranus -88176-10-05 05:44 J -30484583.50 -30484583.26 -30484583.01 0.0132 0.0049
 Saturn -88175-02-03 01:25 J -30484462.67 -30484462.44 -30484462.20 0.0272 0.0048
 Uranus -88175-10-09 08:51 J -30484214.36 -30484214.13 -30484213.88 0.0132 0.0033
 Saturn -88174-02-14 11:30 J -30484086.24 -30484086.02 -30484085.79 0.0272 0.0104
 Uranus -88174-10-13 17:59 J -30483845.01 -30483844.75 -30483844.49 0.0132 0.0024
 Saturn -88173-02-26 04:03 J -30483709.44 -30483709.33 -30483709.22 0.0272 0.0240
 Neptune -88173-09-19 21:49 J -30483502.77 -30483502.59 -30483502.40 0.0088 0.0062
 Uranus -88173-10-16 19:54 J -30483475.92 -30483475.67 -30483475.42 0.0131 0.0001

Neptune -88172-09-22 16:18 J -30483135.04 -30483134.82 -30483134.57 0.0088 0.0043
 Uranus -88172-10-21 04:03 J -30483106.59 -30483106.33 -30483106.06 0.0131 0.0003
 Neptune -88171-09-25 01:54 J -30482767.67 -30482767.42 -30482767.16 0.0088 0.0007
 Uranus -88171-10-25 04:32 J -30482737.55 -30482737.31 -30482737.07 0.0131 0.0030
 Neptune -88170-09-27 16:32 J -30482400.07 -30482399.81 -30482399.54 0.0088 0.0012
 Jupiter -88170-10-01 20:51 J -30482395.87 -30482395.63 -30482395.39 0.0524 0.0063
 Uranus -88170-10-29 11:44 J -30482368.25 -30482368.01 -30482367.75 0.0131 0.0034
 Neptune -88169-09-29 05:44 J -30482032.45 -30482032.26 -30482032.03 0.0088 0.0049
 Uranus -88169-11-01 11:15 J -30481999.23 -30481999.03 -30481998.79 0.0131 0.0056
 Neptune -88168-10-01 15:20 J -30481665.03 -30481664.86 -30481664.68 0.0088 0.0067
 Uranus -88168-11-05 17:44 J -30481629.97 -30481629.76 -30481629.53 0.0131 0.0068
 Uranus -88167-11-09 16:18 J -30481261.00 -30481260.82 -30481260.60 0.0131 0.0077
 Uranus -88166-11-13 21:49 J -30480891.76 -30480891.59 -30480891.42 0.0131 0.0098
 Uranus -88165-11-16 19:39 J -30480522.83 -30480522.68 -30480522.51 0.0131 0.0099
 Jupiter -88164-03-23 11:44 J -30480396.23 -30480396.01 -30480395.78 0.0505 0.0156
 Uranus -88164-11-20 23:59 J -30480153.56 -30480153.50 -30480153.39 0.0132 0.0124
 Uranus -88163-11-24 22:03 J -30479784.64 -30479784.58 -30479784.48 0.0132 0.0124
 Saturn -88161-08-01 21:20 J -30479168.82 -30479168.61 -30479168.37 0.0286 0.0114
 Saturn -88160-08-16 17:01 J -30478789.03 -30478788.79 -30478788.54 0.0287 0.0072
 Saturn -88159-08-31 07:25 J -30478409.30 -30478409.19 -30478409.06 0.0286 0.0251
 Jupiter -88158-10-06 17:44 J -30478007.94 -30478007.76 -30478007.58 0.0526 0.0326
 Pluto -88156-12-18 13:39 J -30477204.12 -30477203.93 -30477203.71 0.0078 0.0048
 Jupiter -88152-03-27 22:32 J -30476008.77 -30476008.56 -30476008.35 0.0503 0.0160
 Saturn -88147-01-17 14:37 J -30474251.95 -30474251.89 -30474251.81 0.0274 0.0261
 Saturn -88146-01-29 05:15 J -30473875.49 -30473875.28 -30473875.06 0.0273 0.0110
 Saturn -88145-02-10 01:11 J -30473498.68 -30473498.45 -30473498.22 0.0273 0.0044
 Saturn -88144-02-20 19:25 J -30473121.86 -30473121.69 -30473121.51 0.0273 0.0186
 Jupiter -88140-04-01 05:30 J -30471621.37 -30471621.27 -30471621.16 0.0501 0.0446
 Uranus -88137-03-05 22:03 J -30470551.62 -30470551.58 -30470551.53 0.0145 0.0142
 Uranus -88136-03-10 11:01 J -30470182.18 -30470182.04 -30470181.88 0.0145 0.0114

Uranus	-88135-03-15 14:37 J	-30469812.03	-30469811.89	-30469811.71	0.0146	0.0112
Uranus	-88134-03-20 05:59 J	-30469442.44	-30469442.25	-30469442.02	0.0146	0.0083
Uranus	-88133-03-24 12:42 J	-30469072.18	-30469071.97	-30469071.74	0.0147	0.0070
Uranus	-88132-03-29 06:56 J	-30468702.43	-30468702.21	-30468701.96	0.0147	0.0055
Saturn	-88132-07-26 23:01 J	-30468582.73	-30468582.54	-30468582.33	0.0286	0.0184
Uranus	-88131-04-03 14:51 J	-30468332.11	-30468331.88	-30468331.63	0.0147	0.0025
Mars	-88131-06-29 12:27 J	-30468245.17	-30468244.98	-30468244.80	0.1728	0.0544
Saturn	-88131-08-10 15:49 J	-30468203.09	-30468202.84	-30468202.58	0.0287	0.0005
Uranus	-88130-04-08 13:25 J	-30467962.19	-30467961.94	-30467961.68	0.0147	0.0018
Saturn	-88130-08-25 09:06 J	-30467823.29	-30467823.12	-30467822.92	0.0287	0.0183
Uranus	-88129-04-12 21:06 J	-30467591.86	-30467591.62	-30467591.37	0.0148	0.0016
Uranus	-88128-04-18 00:13 J	-30467221.74	-30467221.49	-30467221.23	0.0148	0.0032
Uranus	-88127-04-23 06:27 J	-30466851.46	-30466851.23	-30466850.99	0.0148	0.0048
Uranus	-88126-04-28 14:08 J	-30466481.12	-30466480.91	-30466480.67	0.0148	0.0080
Uranus	-88125-05-02 18:27 J	-30466110.92	-30466110.73	-30466110.52	0.0148	0.0086
Uranus	-88124-05-08 06:42 J	-30465740.37	-30465740.22	-30465740.04	0.0147	0.0115
Uranus	-88123-05-13 09:20 J	-30465370.21	-30465370.11	-30465370.00	0.0147	0.0133
Uranus	-88122-05-19 00:13 J	-30464999.54	-30464999.49	-30464999.39	0.0147	0.0142
Saturn	-88117-01-24 19:11 J	-30463287.88	-30463287.70	-30463287.52	0.0273	0.0178
Saturn	-88116-02-04 05:01 J	-30462911.53	-30462911.29	-30462911.04	0.0272	0.0022
Saturn	-88115-02-15 18:27 J	-30462534.93	-30462534.73	-30462534.52	0.0272	0.0126
Saturn	-88114-02-27 16:47 J	-30462157.88	-30462157.80	-30462157.73	0.0272	0.0257
Mars	-88110-12-30 10:32 J	-30460391.24	-30460391.06	-30460390.87	0.1814	0.0167
Saturn	-88103-07-20 18:27 J	-30457996.80	-30457996.73	-30457996.62	0.0286	0.0265
Saturn	-88102-08-04 13:39 J	-30457617.17	-30457616.93	-30457616.69	0.0286	0.0084
Saturn	-88101-08-18 05:30 J	-30457237.51	-30457237.27	-30457237.02	0.0287	0.0100
Saturn	-88100-09-01 17:01 J	-30456857.84	-30456857.79	-30456857.71	0.0286	0.0276
Jupiter	-88099-09-25 21:06 J	-30456468.74	-30456468.62	-30456468.49	0.0521	0.0442
Uranus	-88098-09-11 05:30 J	-30456118.32	-30456118.27	-30456118.21	0.0134	0.0131
Uranus	-88097-09-14 18:13 J	-30455748.87	-30455748.74	-30455748.60	0.0134	0.0112

Uranus -88096-09-19 05:15 J -30455379.42 -30455379.28 -30455379.11 0.0133 0.0107
 Uranus -88095-09-23 15:06 J -30455010.06 -30455009.87 -30455009.67 0.0133 0.0081
 Uranus -88094-09-28 00:56 J -30454640.66 -30454640.46 -30454640.23 0.0133 0.0080
 Jupiter -88093-03-18 01:25 J -30454468.50 -30454468.44 -30454468.39 0.0508 0.0492
 Uranus -88093-10-01 08:08 J -30454271.37 -30454271.16 -30454270.92 0.0132 0.0056
 Uranus -88092-10-05 17:44 J -30453902.00 -30453901.76 -30453901.51 0.0132 0.0045
 Neptune -88091-03-13 07:25 J -30453743.22 -30453743.19 -30453743.09 0.0089 0.0086
 Uranus -88091-10-09 22:18 J -30453532.80 -30453532.57 -30453532.32 0.0132 0.0032
 Neptune -88090-03-15 12:42 J -30453376.12 -30453375.97 -30453375.79 0.0089 0.0067
 Uranus -88090-10-14 06:42 J -30453163.48 -30453163.22 -30453162.95 0.0132 0.0011
 Neptune -88089-03-17 05:30 J -30453008.50 -30453008.27 -30453008.03 0.0089 0.0031
 Uranus -88089-10-17 09:49 J -30452794.34 -30452794.09 -30452793.84 0.0131 0.0007
 Saturn -88088-01-18 19:54 J -30452700.77 -30452700.67 -30452700.55 0.0274 0.0241
 Neptune -88088-03-19 08:37 J -30452641.38 -30452641.14 -30452640.88 0.0089 0.0013
 Uranus -88088-10-21 16:32 J -30452425.06 -30452424.81 -30452424.54 0.0131 0.0020
 Saturn -88087-01-30 16:03 J -30452324.04 -30452323.83 -30452323.61 0.0273 0.0086
 Neptune -88087-03-22 01:25 J -30452273.68 -30452273.44 -30452273.18 0.0089 0.0023
 Jupiter -88087-09-30 15:35 J -30452081.08 -30452080.85 -30452080.62 0.0523 0.0109
 Uranus -88087-10-25 17:59 J -30452055.99 -30452055.75 -30452055.50 0.0131 0.0022
 Saturn -88086-02-11 10:18 J -30451947.30 -30451947.07 -30451946.84 0.0273 0.0067
 Neptune -88086-03-24 06:42 J -30451906.42 -30451906.22 -30451905.98 0.0089 0.0042
 Uranus -88086-10-29 23:44 J -30451686.74 -30451686.51 -30451686.25 0.0131 0.0046
 Saturn -88085-02-22 23:15 J -30451570.69 -30451570.53 -30451570.37 0.0273 0.0204
 Neptune -88085-03-25 20:37 J -30451538.77 -30451538.64 -30451538.50 0.0089 0.0076
 Uranus -88085-11-02 00:27 J -30451317.70 -30451317.48 -30451317.25 0.0131 0.0054
 Mars -88084-06-20 18:42 J -30451086.80 -30451086.72 -30451086.64 0.1703 0.1546
 Uranus -88084-11-06 05:44 J -30450948.48 -30450948.26 -30450948.04 0.0131 0.0069
 Uranus -88083-11-10 05:15 J -30450579.45 -30450579.28 -30450579.09 0.0131 0.0086
 Uranus -88082-11-14 09:49 J -30450210.28 -30450210.09 -30450209.90 0.0131 0.0089
 Jupiter -88081-03-22 16:03 J -30450081.03 -30450080.83 -30450080.63 0.0506 0.0203

Uranus	-88081-11-17 09:06 J	-30449841.23	-30449841.12	-30449840.99	0.0131	0.0113
Uranus	-88080-11-21 12:13 J	-30449472.10	-30449471.99	-30449471.83	0.0132	0.0112
Jupiter	-88075-10-05 19:39 J	-30447692.88	-30447692.68	-30447692.47	0.0525	0.0261
Saturn	-88073-07-28 13:54 J	-30447031.12	-30447030.92	-30447030.70	0.0286	0.0157
Saturn	-88072-08-12 10:18 J	-30446651.32	-30446651.07	-30446650.83	0.0287	0.0028
Saturn	-88071-08-27 05:01 J	-30446271.45	-30446271.29	-30446271.12	0.0287	0.0210
Jupiter	-88069-03-27 01:39 J	-30445693.66	-30445693.43	-30445693.20	0.0504	0.0124
Saturn	-88058-01-25 23:30 J	-30441736.71	-30441736.52	-30441736.31	0.0273	0.0153
Saturn	-88057-02-06 11:15 J	-30441360.26	-30441360.03	-30441359.79	0.0272	0.0003
Jupiter	-88057-03-31 11:30 J	-30441306.14	-30441306.02	-30441305.89	0.0501	0.0412
Saturn	-88056-02-17 06:13 J	-30440983.42	-30440983.24	-30440983.03	0.0272	0.0148
Uranus	-88053-03-06 09:06 J	-30439870.23	-30439870.12	-30439869.98	0.0145	0.0125
Uranus	-88052-03-10 22:32 J	-30439500.68	-30439500.56	-30439500.42	0.0145	0.0122
Uranus	-88051-03-16 02:37 J	-30439130.57	-30439130.39	-30439130.18	0.0146	0.0091
Uranus	-88050-03-20 17:59 J	-30438760.94	-30438760.75	-30438760.54	0.0146	0.0087
Uranus	-88049-03-25 00:27 J	-30438390.69	-30438390.48	-30438390.25	0.0147	0.0064
Uranus	-88048-03-29 18:27 J	-30438020.97	-30438020.73	-30438020.48	0.0147	0.0042
Uranus	-88047-04-04 02:37 J	-30437650.62	-30437650.39	-30437650.14	0.0147	0.0033
Uranus	-88046-04-09 00:13 J	-30437280.74	-30437280.49	-30437280.23	0.0147	0.0003
Uranus	-88045-04-13 09:06 J	-30436910.36	-30436910.12	-30436909.87	0.0148	0.0011
Uranus	-88044-04-18 11:01 J	-30436540.28	-30436540.04	-30436539.78	0.0148	0.0037
Saturn	-88044-07-22 10:47 J	-30436445.18	-30436445.05	-30436444.90	0.0286	0.0239
Uranus	-88043-04-23 18:56 J	-30436169.93	-30436169.71	-30436169.48	0.0148	0.0060
Saturn	-88043-08-06 01:54 J	-30436065.67	-30436065.42	-30436065.16	0.0286	0.0056
Uranus	-88042-04-29 01:54 J	-30435799.64	-30435799.42	-30435799.18	0.0148	0.0068
Saturn	-88042-08-20 16:03 J	-30435686.06	-30435685.83	-30435685.59	0.0286	0.0128
Uranus	-88041-05-03 07:25 J	-30435429.36	-30435429.19	-30435429.00	0.0148	0.0102
Uranus	-88040-05-08 18:56 J	-30435058.87	-30435058.71	-30435058.53	0.0148	0.0111
Uranus	-88039-05-13 22:03 J	-30434688.68	-30434688.58	-30434688.45	0.0147	0.0131
Mars	-88030-01-01 18:13 J	-30431533.88	-30431533.74	-30431533.61	0.1808	0.1111

Saturn -88029-01-21 06:13 J -30431149.37 -30431149.24 -30431149.10 0.0274 0.0217
 Saturn -88028-02-01 01:25 J -30430772.66 -30430772.44 -30430772.20 0.0273 0.0062
 Saturn -88027-02-12 13:54 J -30430396.15 -30430395.92 -30430395.68 0.0273 0.0089
 Saturn -88026-02-24 03:35 J -30430019.47 -30430019.35 -30430019.20 0.0273 0.0225
 Jupiter -88016-09-24 09:06 J -30426154.15 -30426154.12 -30426154.06 0.0520 0.0508
 Saturn -88014-07-31 08:23 J -30425479.36 -30425479.15 -30425478.93 0.0287 0.0131
 Uranus -88014-09-11 17:01 J -30425436.87 -30425436.79 -30425436.66 0.0134 0.0123
 Saturn -88013-08-14 05:59 J -30425099.50 -30425099.25 -30425099.01 0.0287 0.0056
 Uranus -88013-09-15 07:39 J -30425067.29 -30425067.18 -30425067.04 0.0134 0.0114
 Saturn -88012-08-28 23:01 J -30424719.68 -30424719.54 -30424719.40 0.0287 0.0235
 Uranus -88012-09-19 18:13 J -30424697.93 -30424697.74 -30424697.54 0.0133 0.0090
 Uranus -88011-09-24 04:47 J -30424328.47 -30424328.30 -30424328.10 0.0133 0.0089
 Uranus -88010-09-28 13:54 J -30423959.15 -30423958.92 -30423958.68 0.0133 0.0063
 Neptune -88009-09-19 06:56 J -30423602.30 -30423602.21 -30423602.07 0.0088 0.0079
 Uranus -88009-10-01 21:49 J -30423589.80 -30423589.59 -30423589.36 0.0132 0.0059
 Neptune -88008-09-21 17:59 J -30423234.94 -30423234.75 -30423234.55 0.0088 0.0055
 Uranus -88008-10-06 05:44 J -30423220.51 -30423220.26 -30423220.00 0.0132 0.0038
 Neptune -88007-09-24 06:42 J -30422867.48 -30422867.22 -30422866.95 0.0088 0.0024
 Uranus -88007-10-10 11:30 J -30422851.26 -30422851.02 -30422850.77 0.0132 0.0023
 Neptune -88006-09-26 22:18 J -30422499.82 -30422499.57 -30422499.32 0.0088 0.0001
 Uranus -88006-10-14 18:13 J -30422482.00 -30422481.74 -30422481.47 0.0131 0.0015
 Mars -88005-06-23 01:25 J -30422229.58 -30422229.44 -30422229.29 0.1707 0.1007
 Neptune -88005-09-28 06:42 J -30422132.46 -30422132.22 -30422131.96 0.0088 0.0030
 Uranus -88005-10-17 22:32 J -30422112.80 -30422112.56 -30422112.31 0.0131 0.0010
 Jupiter -88004-09-29 17:15 J -30421766.00 -30421765.78 -30421765.55 0.0522 0.0172
 Neptune -88004-10-01 01:25 J -30421764.62 -30421764.44 -30421764.22 0.0088 0.0055
 Uranus -88004-10-22 04:32 J -30421743.57 -30421743.31 -30421743.04 0.0131 0.0011
 Neptune -88003-10-03 06:42 J -30421397.26 -30421397.22 -30421397.11 0.0088 0.0085
 Uranus -88003-10-26 07:25 J -30421374.42 -30421374.19 -30421373.95 0.0131 0.0037
 Uranus -88002-10-30 12:42 J -30421005.22 -30421004.97 -30421004.72 0.0131 0.0041

Uranus -88001-11-02 14:08 J -30420636.12 -30420635.91 -30420635.68 0.0131 0.0061

88TH MILLENNIUM BCE

This is a list of transits of Moon in the 88th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-88000-11-06 17:44 J		-30420266.97	-30420266.76	-30420266.53	0.0131	0.0072	
Saturn	-87999-01-27 04:32 J		-30420185.51	-30420185.31	-30420185.09	0.0272	0.0131	
Uranus	-87999-11-10 18:27 J		-30419897.91	-30419897.73	-30419897.53	0.0131	0.0081	
Saturn	-87998-02-07 22:32 J		-30419808.79	-30419808.56	-30419808.33	0.0272	0.0024	
Jupiter	-87998-03-22 20:23 J		-30419765.86	-30419765.65	-30419765.43	0.0506	0.0231	
Uranus	-87998-11-14 20:51 J		-30419528.78	-30419528.63	-30419528.44	0.0131	0.0101	
Saturn	-87997-02-19 18:13 J		-30419431.92	-30419431.74	-30419431.55	0.0272	0.0168	
Uranus	-87997-11-17 21:20 J		-30419159.75	-30419159.61	-30419159.45	0.0131	0.0102	
Uranus	-87996-11-21 23:15 J		-30418790.59	-30418790.53	-30418790.43	0.0132	0.0126	
Pluto	-87995-06-15 23:30 J		-30418584.74	-30418584.52	-30418584.28	0.0067	0.0037	
Uranus	-87995-11-25 23:44 J		-30418421.57	-30418421.51	-30418421.42	0.0132	0.0125	
Pluto	-87994-06-17 17:59 J		-30418217.76	-30418217.75	-30418217.67	0.0067	0.0066	
Jupiter	-87992-10-04 12:27 J		-30417378.20	-30417377.98	-30417377.75	0.0525	0.0208	
Jupiter	-87986-03-27 06:42 J		-30415378.44	-30415378.22	-30415378.00	0.0504	0.0091	
Saturn	-87985-07-23 23:15 J		-30414893.70	-30414893.53	-30414893.35	0.0286	0.0210	
Saturn	-87984-08-07 14:23 J		-30414514.15	-30414513.90	-30414513.64	0.0286	0.0028	
Mars	-87984-12-24 02:08 J		-30414375.48	-30414375.41	-30414375.34	0.1836	0.1668	
Saturn	-87983-08-22 07:25 J		-30414134.39	-30414134.19	-30414133.98	0.0287	0.0156	

Jupiter -87974-03-31 16:32 J -30410990.98 -30410990.81 -30410990.65 0.0502 0.0358
 Saturn -87970-01-22 16:32 J -30409597.97 -30409597.81 -30409597.64 0.0273 0.0196
 Uranus -87970-03-02 19:25 J -30409558.75 -30409558.69 -30409558.63 0.0144 0.0139
 Saturn -87969-02-03 05:44 J -30409221.50 -30409221.26 -30409221.02 0.0273 0.0041
 Uranus -87969-03-06 18:42 J -30409188.82 -30409188.72 -30409188.60 0.0145 0.0130
 Saturn -87968-02-13 16:47 J -30408845.02 -30408844.80 -30408844.58 0.0273 0.0109
 Uranus -87968-03-11 08:37 J -30408819.30 -30408819.14 -30408818.96 0.0145 0.0103
 Saturn -87967-02-25 12:13 J -30408468.09 -30408467.99 -30408467.88 0.0273 0.0242
 Uranus -87967-03-16 11:44 J -30408449.17 -30408449.01 -30408448.81 0.0146 0.0101
 Uranus -87966-03-21 03:20 J -30408079.56 -30408079.36 -30408079.13 0.0146 0.0071
 Uranus -87965-03-25 10:03 J -30407709.30 -30407709.08 -30407708.84 0.0147 0.0061
 Uranus -87964-03-30 04:03 J -30407339.56 -30407339.33 -30407339.08 0.0147 0.0044
 Uranus -87963-04-04 13:25 J -30406969.19 -30406968.94 -30406968.69 0.0147 0.0014
 Uranus -87962-04-09 10:32 J -30406599.32 -30406599.06 -30406598.81 0.0147 0.0009
 Uranus -87961-04-13 20:08 J -30406228.90 -30406228.66 -30406228.41 0.0148 0.0025
 Uranus -87960-04-18 20:51 J -30405858.88 -30405858.63 -30405858.37 0.0148 0.0038
 Uranus -87959-04-24 05:44 J -30405488.48 -30405488.26 -30405488.02 0.0148 0.0055
 Uranus -87958-04-29 10:47 J -30405118.25 -30405118.05 -30405117.82 0.0148 0.0085
 Uranus -87957-05-03 17:30 J -30404747.94 -30404747.77 -30404747.55 0.0148 0.0091
 Uranus -87956-05-09 04:03 J -30404377.48 -30404377.33 -30404377.17 0.0148 0.0119
 Saturn -87956-07-18 05:59 J -30404307.27 -30404307.25 -30404307.20 0.0286 0.0283
 Uranus -87955-05-14 08:23 J -30404007.24 -30404007.15 -30404007.04 0.0147 0.0135
 Saturn -87955-08-02 02:37 J -30403927.61 -30403927.39 -30403927.15 0.0287 0.0105
 Uranus -87954-05-19 22:32 J -30403636.61 -30403636.56 -30403636.49 0.0147 0.0143
 Saturn -87954-08-16 21:06 J -30403547.87 -30403547.62 -30403547.37 0.0287 0.0080
 Saturn -87953-08-30 10:18 J -30403168.18 -30403168.07 -30403167.95 0.0287 0.0258
 Saturn -87941-01-17 21:06 J -30399010.70 -30399010.62 -30399010.54 0.0273 0.0256
 Saturn -87940-01-28 13:25 J -30398634.14 -30398633.94 -30398633.72 0.0272 0.0109
 Saturn -87939-02-09 09:20 J -30398257.34 -30398257.11 -30398256.88 0.0272 0.0046
 Saturn -87938-02-20 23:30 J -30397880.69 -30397880.52 -30397880.33 0.0272 0.0184

Uranus	-87931-09-07 20:23 J	-30395124.65	-30395124.65	-30395124.62	0.0135	0.0134
Uranus	-87930-09-12 06:42 J	-30394755.35	-30394755.22	-30394755.10	0.0134	0.0118
Uranus	-87929-09-15 21:06 J	-30394385.76	-30394385.62	-30394385.43	0.0134	0.0101
Uranus	-87928-09-20 06:13 J	-30394016.42	-30394016.24	-30394016.05	0.0133	0.0096
Uranus	-87927-09-24 17:59 J	-30393646.95	-30393646.75	-30393646.52	0.0133	0.0071
Neptune	-87926-03-15 03:49 J	-30393475.45	-30393475.34	-30393475.18	0.0089	0.0075
Mars	-87926-06-26 11:30 J	-30393372.22	-30393372.02	-30393371.82	0.1713	0.0226
Saturn	-87926-07-26 10:18 J	-30393342.26	-30393342.07	-30393341.87	0.0286	0.0184
Uranus	-87926-09-29 01:54 J	-30393277.63	-30393277.42	-30393277.17	0.0133	0.0070
Neptune	-87925-03-16 06:56 J	-30393108.39	-30393108.21	-30393107.98	0.0089	0.0051
Saturn	-87925-08-09 05:30 J	-30392962.52	-30392962.27	-30392962.02	0.0287	0.0003
Uranus	-87925-10-02 11:30 J	-30392908.24	-30392908.02	-30392907.77	0.0132	0.0046
Neptune	-87924-03-18 23:01 J	-30392740.78	-30392740.54	-30392740.28	0.0089	0.0021
Saturn	-87924-08-24 01:25 J	-30392582.62	-30392582.44	-30392582.24	0.0287	0.0180
Uranus	-87924-10-06 18:42 J	-30392538.97	-30392538.72	-30392538.45	0.0132	0.0036
Neptune	-87923-03-21 05:01 J	-30392373.53	-30392373.29	-30392373.04	0.0089	0.0003
Uranus	-87923-10-11 01:54 J	-30392169.66	-30392169.42	-30392169.17	0.0132	0.0021
Neptune	-87922-03-23 16:47 J	-30392006.04	-30392005.80	-30392005.55	0.0089	0.0032
Uranus	-87922-10-15 07:54 J	-30391800.44	-30391800.17	-30391799.90	0.0131	0.0002
Neptune	-87921-03-25 03:35 J	-30391638.52	-30391638.35	-30391638.14	0.0089	0.0057
Jupiter	-87921-09-28 12:27 J	-30391451.20	-30391450.98	-30391450.76	0.0522	0.0210
Uranus	-87921-10-18 13:11 J	-30391431.20	-30391430.95	-30391430.70	0.0131	0.0002
Neptune	-87920-03-27 11:01 J	-30391271.07	-30391271.04	-30391270.96	0.0089	0.0087
Uranus	-87920-10-22 17:44 J	-30391062.02	-30391061.76	-30391061.50	0.0131	0.0028
Uranus	-87919-10-26 21:20 J	-30390692.85	-30390692.61	-30390692.37	0.0131	0.0029
Uranus	-87918-10-31 00:56 J	-30390323.69	-30390323.46	-30390323.21	0.0131	0.0053
Uranus	-87917-11-03 03:20 J	-30389954.56	-30389954.36	-30389954.13	0.0131	0.0060
Uranus	-87916-11-07 05:59 J	-30389585.45	-30389585.25	-30389585.02	0.0131	0.0074
Jupiter	-87915-03-21 22:18 J	-30389450.75	-30389450.57	-30389450.38	0.0506	0.0275
Uranus	-87915-11-11 07:54 J	-30389216.33	-30389216.17	-30389215.97	0.0131	0.0090

Uranus	-87914-11-15 10:03 J	-30388847.25	-30388847.08	-30388846.88	0.0131	0.0093
Uranus	-87913-11-18 11:44 J	-30388478.11	-30388478.01	-30388477.88	0.0131	0.0115
Uranus	-87912-11-22 12:27 J	-30388109.09	-30388108.98	-30388108.83	0.0132	0.0114
Saturn	-87911-01-23 21:06 J	-30388046.81	-30388046.62	-30388046.43	0.0273	0.0172
Saturn	-87910-02-04 07:25 J	-30387670.44	-30387670.19	-30387669.95	0.0273	0.0018
Saturn	-87909-02-15 23:59 J	-30387293.70	-30387293.50	-30387293.29	0.0273	0.0128
Jupiter	-87909-10-03 19:54 J	-30387062.88	-30387062.67	-30387062.45	0.0524	0.0170
Pluto	-87909-12-20 14:23 J	-30386985.16	-30386984.90	-30386984.64	0.0078	0.0002
Saturn	-87908-02-26 22:03 J	-30386916.65	-30386916.58	-30386916.50	0.0273	0.0257
Mars	-87905-12-26 14:23 J	-30385518.07	-30385517.90	-30385517.72	0.1830	0.0622
Jupiter	-87903-03-26 11:15 J	-30385063.26	-30385063.03	-30385062.79	0.0504	0.0045
Saturn	-87897-07-19 21:49 J	-30382755.69	-30382755.59	-30382755.48	0.0286	0.0257
Jupiter	-87897-10-08 16:03 J	-30382674.92	-30382674.83	-30382674.71	0.0526	0.0471
Saturn	-87896-08-03 15:35 J	-30382376.10	-30382375.85	-30382375.60	0.0287	0.0080
Saturn	-87895-08-18 06:42 J	-30381996.46	-30381996.22	-30381995.97	0.0287	0.0104
Saturn	-87894-09-01 19:11 J	-30381616.73	-30381616.70	-30381616.64	0.0287	0.0282
Jupiter	-87891-03-30 16:18 J	-30380676.00	-30380675.82	-30380675.64	0.0503	0.0316
Uranus	-87886-03-03 06:56 J	-30378877.28	-30378877.21	-30378877.11	0.0144	0.0134
Uranus	-87885-03-07 06:13 J	-30378507.39	-30378507.24	-30378507.08	0.0145	0.0114
Uranus	-87884-03-11 20:37 J	-30378137.77	-30378137.64	-30378137.46	0.0145	0.0111
Uranus	-87883-03-16 23:59 J	-30377767.71	-30377767.50	-30377767.29	0.0146	0.0080
Saturn	-87882-01-19 04:32 J	-30377459.42	-30377459.31	-30377459.19	0.0273	0.0235
Uranus	-87882-03-21 15:49 J	-30377398.03	-30377397.84	-30377397.62	0.0146	0.0077
Saturn	-87881-01-30 23:44 J	-30377082.73	-30377082.51	-30377082.29	0.0272	0.0086
Uranus	-87881-03-25 22:32 J	-30377027.80	-30377027.56	-30377027.33	0.0147	0.0053
Saturn	-87880-02-10 14:23 J	-30376706.14	-30376705.90	-30376705.66	0.0272	0.0064
Uranus	-87880-03-30 16:03 J	-30376658.06	-30376657.83	-30376657.58	0.0147	0.0033
Saturn	-87879-02-22 00:56 J	-30376329.63	-30376329.46	-30376329.30	0.0272	0.0198
Uranus	-87879-04-05 01:11 J	-30376287.69	-30376287.45	-30376287.20	0.0147	0.0024
Uranus	-87878-04-09 21:35 J	-30375917.85	-30375917.60	-30375917.34	0.0147	0.0012

Uranus	-87877-04-14 08:08 J	-30375547.41	-30375547.16	-30375546.91	0.0148	0.0018
Uranus	-87876-04-19 07:54 J	-30375177.41	-30375177.17	-30375176.91	0.0148	0.0044
Uranus	-87875-04-24 18:13 J	-30374806.96	-30374806.74	-30374806.52	0.0148	0.0065
Uranus	-87874-04-29 22:32 J	-30374436.79	-30374436.56	-30374436.33	0.0148	0.0073
Uranus	-87873-05-04 06:27 J	-30374066.39	-30374066.23	-30374066.05	0.0148	0.0107
Uranus	-87872-05-09 15:06 J	-30373696.01	-30373695.87	-30373695.67	0.0148	0.0114
Uranus	-87871-05-14 20:51 J	-30373325.72	-30373325.63	-30373325.51	0.0147	0.0134
Saturn	-87867-07-28 00:42 J	-30371790.66	-30371790.47	-30371790.25	0.0286	0.0158
Saturn	-87866-08-11 22:18 J	-30371410.81	-30371410.57	-30371410.32	0.0287	0.0023
Saturn	-87865-08-25 17:44 J	-30371030.93	-30371030.76	-30371030.58	0.0287	0.0203
Saturn	-87852-01-24 20:37 J	-30366495.84	-30366495.64	-30366495.43	0.0273	0.0148
Saturn	-87851-02-05 11:30 J	-30366119.25	-30366119.02	-30366118.79	0.0273	0.0002
Saturn	-87850-02-17 07:54 J	-30365742.36	-30365742.17	-30365741.96	0.0273	0.0144
Saturn	-87849-02-29 01:39 J	-30365365.45	-30365365.43	-30365365.38	0.0273	0.0269
Mars	-87847-06-29 13:11 J	-30364514.14	-30364513.95	-30364513.76	0.1719	0.0804
Uranus	-87847-09-08 09:35 J	-30364443.18	-30364443.10	-30364442.98	0.0135	0.0123
Uranus	-87846-09-12 18:56 J	-30364073.84	-30364073.71	-30364073.55	0.0134	0.0111
Uranus	-87845-09-16 11:15 J	-30363704.18	-30363704.03	-30363703.85	0.0134	0.0102
Uranus	-87844-09-20 19:11 J	-30363334.90	-30363334.70	-30363334.47	0.0133	0.0079
Neptune	-87844-09-20 20:23 J	-30363334.83	-30363334.65	-30363334.46	0.0088	0.0064 *
Neptune	-87843-09-23 13:25 J	-30362967.16	-30362966.94	-30362966.72	0.0088	0.0045
Uranus	-87843-09-25 08:08 J	-30362965.34	-30362965.16	-30362964.94	0.0133	0.0079
Neptune	-87842-09-25 20:37 J	-30362599.90	-30362599.64	-30362599.37	0.0088	0.0010
Uranus	-87842-09-29 15:20 J	-30362596.10	-30362595.86	-30362595.61	0.0133	0.0052
Neptune	-87841-09-27 16:18 J	-30362232.08	-30362231.82	-30362231.56	0.0088	0.0009
Uranus	-87841-10-03 01:39 J	-30362226.66	-30362226.43	-30362226.19	0.0132	0.0048
Neptune	-87840-09-29 21:49 J	-30361864.81	-30361864.59	-30361864.36	0.0088	0.0046
Uranus	-87840-10-07 06:56 J	-30361857.46	-30361857.21	-30361856.94	0.0132	0.0028
Neptune	-87839-10-02 16:32 J	-30361496.96	-30361496.81	-30361496.60	0.0088	0.0065
Uranus	-87839-10-11 15:35 J	-30361488.10	-30361487.85	-30361487.60	0.0132	0.0014

Saturn -87838-07-22 04:47 J -30361204.44 -30361204.30 -30361204.14 0.0286 0.0232
 Jupiter -87838-09-28 16:18 J -30361136.02 -30361135.82 -30361135.62 0.0521 0.0253
 Uranus -87838-10-15 20:23 J -30361118.91 -30361118.65 -30361118.38 0.0131 0.0005
 Saturn -87837-08-04 21:06 J -30360824.87 -30360824.62 -30360824.36 0.0287 0.0054
 Uranus -87837-10-19 03:06 J -30360749.62 -30360749.37 -30360749.13 0.0131 0.0017
 Saturn -87836-08-19 13:54 J -30360445.15 -30360444.92 -30360444.69 0.0287 0.0127
 Uranus -87836-10-23 06:56 J -30360380.47 -30360380.21 -30360379.95 0.0131 0.0018
 Uranus -87835-10-27 11:44 J -30360011.23 -30360011.01 -30360010.76 0.0131 0.0045
 Uranus -87834-10-31 14:23 J -30359642.13 -30359641.90 -30359641.64 0.0131 0.0047
 Uranus -87833-11-03 18:27 J -30359272.94 -30359272.73 -30359272.52 0.0131 0.0067
 Jupiter -87832-03-21 06:42 J -30359135.40 -30359135.22 -30359135.02 0.0508 0.0305
 Uranus -87832-11-07 19:11 J -30358903.90 -30358903.70 -30358903.47 0.0131 0.0076
 Uranus -87831-11-11 22:18 J -30358534.75 -30358534.57 -30358534.38 0.0131 0.0086
 Uranus -87830-11-15 22:18 J -30358165.71 -30358165.57 -30358165.39 0.0131 0.0104
 Uranus -87829-11-19 01:11 J -30357796.59 -30357796.45 -30357796.30 0.0131 0.0105
 Uranus -87828-11-23 01:11 J -30357427.50 -30357427.45 -30357427.39 0.0131 0.0128
 Uranus -87827-11-27 04:18 J -30357058.39 -30357058.32 -30357058.25 0.0132 0.0126
 Jupiter -87826-10-03 14:23 J -30356748.14 -30356747.90 -30356747.66 0.0523 0.0111
 Mars -87826-12-30 11:59 J -30356660.20 -30356660.00 -30356659.80 0.1823 0.0335
 Saturn -87823-01-20 13:39 J -30355908.08 -30355907.93 -30355907.79 0.0273 0.0213
 Saturn -87822-02-01 05:01 J -30355531.52 -30355531.29 -30355531.05 0.0272 0.0064
 Saturn -87821-02-12 14:23 J -30355155.13 -30355154.90 -30355154.67 0.0272 0.0082
 Saturn -87820-02-23 05:01 J -30354778.43 -30354778.29 -30354778.15 0.0272 0.0213
 Jupiter -87820-03-25 13:25 J -30354748.17 -30354747.94 -30354747.71 0.0505 0.0016
 Jupiter -87814-10-08 14:37 J -30352360.02 -30352359.89 -30352359.75 0.0526 0.0421
 Jupiter -87808-03-30 07:39 J -30350360.37 -30350360.18 -30350359.98 0.0503 0.0278
 Saturn -87808-07-29 15:35 J -30350239.06 -30350238.85 -30350238.63 0.0287 0.0133
 Saturn -87807-08-13 11:30 J -30349859.27 -30349859.02 -30349858.77 0.0287 0.0046
 Saturn -87806-08-28 03:06 J -30349479.53 -30349479.37 -30349479.20 0.0287 0.0222
 Uranus -87803-02-27 05:01 J -30348565.35 -30348565.29 -30348565.19 0.0144 0.0137

Uranus	-87802-03-03 20:08 J	-30348195.77	-30348195.66	-30348195.55	0.0144	0.0128
Uranus	-87801-03-07 17:01 J	-30347825.91	-30347825.79	-30347825.62	0.0145	0.0118
Uranus	-87800-03-12 09:06 J	-30347456.31	-30347456.12	-30347455.93	0.0145	0.0092
Mars	-87800-06-21 02:37 J	-30347355.55	-30347355.39	-30347355.23	0.1695	0.1119
Uranus	-87799-03-17 10:47 J	-30347086.24	-30347086.05	-30347085.84	0.0146	0.0090
Uranus	-87798-03-22 03:35 J	-30346716.57	-30346716.35	-30346716.13	0.0146	0.0060
Uranus	-87797-03-26 09:35 J	-30346346.33	-30346346.10	-30346345.86	0.0147	0.0051
Uranus	-87796-03-31 03:49 J	-30345976.57	-30345976.34	-30345976.09	0.0147	0.0034
Uranus	-87795-04-05 13:11 J	-30345606.20	-30345605.95	-30345605.70	0.0147	0.0005
Uranus	-87794-04-10 09:20 J	-30345236.36	-30345236.11	-30345235.85	0.0147	0.0002
Saturn	-87793-01-26 23:30 J	-30344944.72	-30344944.52	-30344944.30	0.0273	0.0128
Uranus	-87793-04-14 20:08 J	-30344865.90	-30344865.66	-30344865.41	0.0148	0.0033
Saturn	-87792-02-06 18:27 J	-30344567.96	-30344567.73	-30344567.50	0.0272	0.0021
Uranus	-87792-04-19 18:56 J	-30344495.95	-30344495.71	-30344495.45	0.0148	0.0044
Saturn	-87791-02-18 11:15 J	-30344191.23	-30344191.03	-30344190.83	0.0272	0.0159
Uranus	-87791-04-25 05:59 J	-30344125.47	-30344125.25	-30344125.02	0.0148	0.0061
Uranus	-87790-04-30 08:51 J	-30343755.34	-30343755.13	-30343754.92	0.0148	0.0089
Uranus	-87789-05-04 17:59 J	-30343384.93	-30343384.75	-30343384.55	0.0148	0.0095
Uranus	-87788-05-10 01:39 J	-30343014.56	-30343014.43	-30343014.27	0.0148	0.0123
Uranus	-87787-05-15 08:51 J	-30342644.23	-30342644.13	-30342644.04	0.0148	0.0136
Uranus	-87786-05-20 20:37 J	-30342273.67	-30342273.64	-30342273.57	0.0147	0.0145
Saturn	-87779-07-23 06:56 J	-30339653.38	-30339653.21	-30339653.02	0.0286	0.0208
Saturn	-87778-08-07 02:23 J	-30339273.65	-30339273.40	-30339273.15	0.0287	0.0031
Saturn	-87777-08-20 23:15 J	-30338893.74	-30338893.53	-30338893.32	0.0287	0.0148
Saturn	-87764-01-21 17:15 J	-30334356.93	-30334356.78	-30334356.60	0.0272	0.0194
Uranus	-87764-09-04 04:03 J	-30334131.42	-30334131.33	-30334131.23	0.0135	0.0126
Saturn	-87763-02-02 03:20 J	-30333980.60	-30333980.36	-30333980.12	0.0272	0.0043
Uranus	-87763-09-08 23:59 J	-30333761.58	-30333761.50	-30333761.38	0.0135	0.0123
Saturn	-87762-02-13 15:20 J	-30333604.08	-30333603.86	-30333603.64	0.0272	0.0100
Neptune	-87762-03-14 04:32 J	-30333575.35	-30333575.31	-30333575.23	0.0089	0.0086

Uranus -87762-09-13 08:08 J -30333392.31 -30333392.16 -30333391.98 0.0134 0.0105
 Saturn -87761-02-25 11:15 J -30333227.15 -30333227.03 -30333226.89 0.0272 0.0225
 Neptune -87761-03-15 19:54 J -30333207.83 -30333207.67 -30333207.50 0.0089 0.0068
 Uranus -87761-09-17 01:25 J -30333022.62 -30333022.44 -30333022.25 0.0134 0.0089
 Neptune -87760-03-18 03:06 J -30332840.59 -30332840.37 -30332840.13 0.0089 0.0033
 Uranus -87760-09-21 07:39 J -30332653.36 -30332653.18 -30332652.95 0.0133 0.0086
 Neptune -87759-03-20 13:54 J -30332473.17 -30332472.92 -30332472.65 0.0089 0.0015
 Uranus -87759-09-25 22:18 J -30332283.78 -30332283.57 -30332283.33 0.0133 0.0060
 Neptune -87758-03-23 01:54 J -30332105.66 -30332105.42 -30332105.18 0.0089 0.0021
 Uranus -87758-09-30 04:47 J -30331914.54 -30331914.30 -30331914.06 0.0133 0.0059
 Neptune -87757-03-24 07:25 J -30331738.41 -30331738.19 -30331737.94 0.0089 0.0039
 Uranus -87757-10-03 16:18 J -30331545.05 -30331544.82 -30331544.57 0.0132 0.0035
 Neptune -87756-03-26 23:30 J -30331370.63 -30331370.52 -30331370.36 0.0089 0.0075
 Uranus -87756-10-07 21:20 J -30331175.87 -30331175.61 -30331175.34 0.0132 0.0026
 Jupiter -87755-09-27 14:23 J -30330821.10 -30330820.90 -30330820.69 0.0520 0.0288
 Uranus -87755-10-12 06:56 J -30330806.45 -30330806.21 -30330805.96 0.0132 0.0012
 Uranus -87754-10-16 10:47 J -30330437.32 -30330437.05 -30330436.79 0.0132 0.0006
 Uranus -87753-10-19 18:13 J -30330067.99 -30330067.74 -30330067.49 0.0131 0.0010
 Uranus -87752-10-23 20:08 J -30329698.90 -30329698.66 -30329698.39 0.0131 0.0036
 Uranus -87751-10-28 02:08 J -30329329.64 -30329329.41 -30329329.16 0.0131 0.0036
 Saturn -87750-07-17 05:44 J -30329067.29 -30329067.26 -30329067.20 0.0286 0.0281
 Uranus -87750-11-01 03:20 J -30328960.58 -30328960.36 -30328960.11 0.0131 0.0060
 Jupiter -87749-03-20 11:01 J -30328820.21 -30328820.04 -30328819.87 0.0508 0.0326
 Saturn -87749-07-30 23:44 J -30328687.74 -30328687.51 -30328687.26 0.0287 0.0109
 Uranus -87749-11-04 08:23 J -30328591.36 -30328591.15 -30328590.93 0.0131 0.0065
 Pluto -87748-06-18 00:42 J -30328365.72 -30328365.47 -30328365.19 0.0067 0.0018
 Saturn -87748-08-14 16:18 J -30328308.07 -30328307.82 -30328307.56 0.0287 0.0069
 Uranus -87748-11-08 08:23 J -30328222.34 -30328222.15 -30328221.92 0.0131 0.0080
 Saturn -87747-08-29 05:59 J -30327928.37 -30327928.25 -30327928.10 0.0287 0.0243
 Uranus -87747-11-12 12:56 J -30327853.12 -30327852.96 -30327852.77 0.0131 0.0092

Mars -87746-01-02 12:13 J -30327802.08 -30327801.99 -30327801.90 0.1816 0.1597
 Uranus -87746-11-16 12:27 J -30327484.14 -30327483.98 -30327483.78 0.0131 0.0097
 Uranus -87745-11-19 16:18 J -30327114.90 -30327114.82 -30327114.70 0.0131 0.0119
 Uranus -87744-11-23 15:20 J -30326745.97 -30326745.86 -30326745.73 0.0131 0.0116
 Jupiter -87743-10-02 17:59 J -30326432.97 -30326432.75 -30326432.52 0.0523 0.0077
 Jupiter -87737-03-25 03:49 J -30324432.57 -30324432.34 -30324432.11 0.0506 0.0014
 Saturn -87735-01-16 10:32 J -30323770.13 -30323770.06 -30323769.98 0.0273 0.0258
 Saturn -87734-01-28 05:44 J -30323393.47 -30323393.26 -30323393.05 0.0272 0.0108
 Saturn -87733-02-08 22:03 J -30323016.81 -30323016.58 -30323016.34 0.0272 0.0040
 Saturn -87732-02-19 08:08 J -30322640.34 -30322640.16 -30322639.96 0.0272 0.0170
 Jupiter -87731-10-08 01:54 J -30322044.58 -30322044.42 -30322044.25 0.0525 0.0380
 Jupiter -87725-03-29 07:11 J -30320045.41 -30320045.20 -30320044.99 0.0504 0.0236
 Mars -87721-06-23 23:30 J -30318497.70 -30318497.52 -30318497.33 0.1701 0.0562
 Uranus -87720-02-23 02:23 J -30318253.43 -30318253.40 -30318253.33 0.0143 0.0139
 Saturn -87720-07-24 11:44 J -30318102.19 -30318102.01 -30318101.82 0.0287 0.0188
 Uranus -87719-02-27 18:56 J -30317883.76 -30317883.71 -30317883.62 0.0144 0.0138
 Saturn -87719-08-08 10:18 J -30317722.32 -30317722.07 -30317721.83 0.0287 0.0011
 Uranus -87718-03-04 11:01 J -30317514.16 -30317514.04 -30317513.91 0.0144 0.0121
 Saturn -87718-08-23 08:08 J -30317342.35 -30317342.16 -30317341.96 0.0287 0.0168
 Uranus -87717-03-08 07:39 J -30317144.34 -30317144.18 -30317143.98 0.0145 0.0103
 Uranus -87716-03-13 00:42 J -30316774.64 -30316774.47 -30316774.29 0.0145 0.0099
 Uranus -87715-03-18 01:54 J -30316404.64 -30316404.42 -30316404.19 0.0146 0.0069
 Uranus -87714-03-22 19:25 J -30316034.90 -30316034.69 -30316034.47 0.0146 0.0066
 Uranus -87713-03-27 00:56 J -30315664.70 -30315664.46 -30315664.22 0.0147 0.0042
 Jupiter -87713-04-02 21:49 J -30315657.64 -30315657.59 -30315657.53 0.0502 0.0484
 Uranus -87712-03-31 19:11 J -30315294.94 -30315294.70 -30315294.45 0.0147 0.0022
 Uranus -87711-04-06 04:03 J -30314924.58 -30314924.33 -30314924.08 0.0147 0.0013
 Uranus -87710-04-10 23:44 J -30314554.76 -30314554.51 -30314554.26 0.0147 0.0021
 Uranus -87709-04-15 10:47 J -30314184.29 -30314184.05 -30314183.79 0.0148 0.0026
 Uranus -87708-04-20 09:35 J -30313814.34 -30313814.10 -30313813.86 0.0148 0.0051

Uranus -87707-04-25 20:51 J -30313443.83 -30313443.63 -30313443.40 0.0148 0.0071
 Uranus -87706-04-30 23:01 J -30313073.75 -30313073.54 -30313073.30 0.0148 0.0079
 Saturn -87705-01-23 15:49 J -30312806.03 -30312805.84 -30312805.65 0.0272 0.0173
 Uranus -87705-05-05 09:20 J -30312703.25 -30312703.11 -30312702.93 0.0148 0.0112
 Saturn -87704-02-03 02:37 J -30312429.62 -30312429.39 -30312429.15 0.0272 0.0023
 Uranus -87704-05-10 16:03 J -30312332.99 -30312332.83 -30312332.66 0.0148 0.0116
 Saturn -87703-02-14 20:08 J -30312052.87 -30312052.66 -30312052.45 0.0271 0.0114
 Uranus -87703-05-15 23:30 J -30311962.59 -30311962.52 -30311962.41 0.0148 0.0137
 Saturn -87702-02-26 14:37 J -30311676.00 -30311675.89 -30311675.77 0.0272 0.0237
 Mars -87700-12-24 17:44 J -30310643.89 -30310643.76 -30310643.64 0.1844 0.1364
 Saturn -87691-07-18 08:51 J -30307516.23 -30307516.13 -30307516.02 0.0286 0.0260
 Saturn -87690-08-02 00:13 J -30307136.74 -30307136.49 -30307136.24 0.0287 0.0087
 Saturn -87689-08-15 17:01 J -30306757.04 -30306756.79 -30306756.55 0.0287 0.0091
 Saturn -87688-08-30 09:49 J -30306377.18 -30306377.09 -30306376.98 0.0287 0.0262
 Uranus -87681-08-31 08:08 J -30303819.20 -30303819.16 -30303819.07 0.0136 0.0131
 Uranus -87680-09-04 17:30 J -30303449.82 -30303449.77 -30303449.71 0.0135 0.0132
 Neptune -87680-09-20 02:37 J -30303434.48 -30303434.39 -30303434.27 0.0088 0.0081
 Uranus -87679-09-09 14:23 J -30303080.03 -30303079.90 -30303079.73 0.0135 0.0110
 Neptune -87679-09-22 09:20 J -30303067.29 -30303067.11 -30303066.89 0.0088 0.0059
 Uranus -87678-09-13 22:18 J -30302710.74 -30302710.57 -30302710.39 0.0134 0.0100
 Neptune -87678-09-25 06:13 J -30302699.49 -30302699.24 -30302698.99 0.0088 0.0026
 Uranus -87677-09-17 16:18 J -30302341.00 -30302340.82 -30302340.63 0.0134 0.0090
 Neptune -87677-09-26 12:27 J -30302332.24 -30302331.98 -30302331.73 0.0088 0.0004
 Saturn -87676-01-17 15:06 J -30302218.98 -30302218.87 -30302218.76 0.0273 0.0239
 Uranus -87676-09-21 22:18 J -30301971.78 -30301971.57 -30301971.33 0.0133 0.0068
 Neptune -87676-09-29 06:56 J -30301964.45 -30301964.21 -30301963.94 0.0088 0.0028
 Saturn -87675-01-29 08:51 J -30301842.36 -30301842.13 -30301841.91 0.0272 0.0088
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 Neptune -87675-10-01 15:49 J -30301597.04 -30301596.84 -30301596.62 0.0088 0.0051
 Saturn -87674-02-09 18:42 J -30301465.96 -30301465.72 -30301465.48 0.0272 0.0054

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 Neptune -87674-10-04 06:13 J -30301229.34 -30301229.24 -30301229.12 0.0088 0.0081
 Saturn -87673-02-21 05:44 J -30301089.43 -30301089.26 -30301089.08 0.0272 0.0183
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 Jupiter -87672-09-26 22:18 J -30300505.75 -30300505.57 -30300505.38 0.0520 0.0309
 Uranus -87672-10-08 10:47 J -30300494.31 -30300494.05 -30300493.79 0.0132 0.0017
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 Uranus -87669-10-20 08:51 J -30299386.37 -30299386.13 -30299385.89 0.0131 0.0025
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 Jupiter -87666-03-21 01:25 J -30298504.61 -30298504.44 -30298504.27 0.0508 0.0345
 Uranus -87666-11-01 17:15 J -30298279.00 -30298278.78 -30298278.52 0.0131 0.0054
 Uranus -87665-11-04 23:01 J -30297909.73 -30297909.54 -30297909.32 0.0131 0.0073
 Uranus -87664-11-08 22:03 J -30297540.77 -30297540.58 -30297540.36 0.0131 0.0080
 Uranus -87663-11-13 03:06 J -30297171.53 -30297171.37 -30297171.17 0.0131 0.0090
 Pluto -87663-12-21 12:56 J -30297133.05 -30297132.96 -30297132.83 0.0078 0.0070
 Uranus -87662-11-17 01:39 J -30296802.57 -30296802.43 -30296802.27 0.0131 0.0107
 Pluto -87662-12-23 18:42 J -30296765.78 -30296765.72 -30296765.61 0.0078 0.0073
 Saturn -87661-07-25 18:13 J -30296550.93 -30296550.74 -30296550.54 0.0287 0.0169
 Uranus -87661-11-20 06:42 J -30296433.36 -30296433.22 -30296433.08 0.0131 0.0108
 Saturn -87660-08-09 16:32 J -30296171.06 -30296170.81 -30296170.56 0.0287 0.0010
 Jupiter -87660-10-02 01:39 J -30296117.67 -30296117.43 -30296117.18 0.0522 0.0044
 Uranus -87660-11-24 04:18 J -30296064.33 -30296064.32 -30296064.26 0.0131 0.0130
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 Jupiter -87654-03-25 03:35 J -30294117.58 -30294117.35 -30294117.11 0.0507 0.0045
 Jupiter -87648-10-06 20:37 J -30291729.81 -30291729.64 -30291729.46 0.0524 0.0333
 Saturn -87646-01-24 13:39 J -30291255.12 -30291254.93 -30291254.73 0.0272 0.0154
 Saturn -87645-02-05 06:42 J -30290878.45 -30290878.22 -30290877.99 0.0272 0.0009

Saturn -87644-02-15 23:59 J -30290501.71 -30290501.50 -30290501.29 0.0271 0.0129
 Saturn -87643-02-27 11:44 J -30290125.10 -30290125.01 -30290124.89 0.0271 0.0247
 Jupiter -87642-03-29 20:51 J -30289729.84 -30289729.63 -30289729.43 0.0505 0.0207
 Mars -87642-06-27 09:06 J -30289640.28 -30289640.12 -30289639.95 0.1706 0.0740
 Uranus -87637-02-20 00:42 J -30287941.48 -30287941.47 -30287941.43 0.0142 0.0142
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 Uranus -87634-03-05 00:56 J -30286832.60 -30286832.46 -30286832.32 0.0144 0.0116
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 Uranus -87632-03-13 13:54 J -30286093.11 -30286092.92 -30286092.71 0.0145 0.0080
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 Uranus -87631-03-18 14:08 J -30285723.12 -30285722.91 -30285722.68 0.0146 0.0078
 Saturn -87631-08-02 23:59 J -30285585.74 -30285585.50 -30285585.25 0.0287 0.0067
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 Jupiter -87630-04-03 05:44 J -30285342.34 -30285342.26 -30285342.16 0.0502 0.0460
 Saturn -87630-08-17 20:51 J -30285205.86 -30285205.63 -30285205.40 0.0287 0.0109
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 Saturn -87629-08-31 16:47 J -30284825.85 -30284825.80 -30284825.73 0.0287 0.0278
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 Uranus -87627-04-06 17:15 J -30284243.04 -30284242.78 -30284242.53 0.0147 0.0006
 Uranus -87626-04-11 13:25 J -30283873.19 -30283872.94 -30283872.69 0.0147 0.0010
 Uranus -87625-04-16 00:13 J -30283502.72 -30283502.49 -30283502.24 0.0148 0.0041
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 Uranus -87623-04-26 09:49 J -30282762.29 -30282762.09 -30282761.85 0.0148 0.0068
 Uranus -87622-05-01 11:01 J -30282392.23 -30282392.04 -30282391.83 0.0148 0.0095
 Uranus -87621-05-05 22:32 J -30282021.73 -30282021.56 -30282021.36 0.0148 0.0099
 Mars -87621-12-27 08:51 J -30281786.30 -30281786.13 -30281785.95 0.1838 0.0141
 Uranus -87620-05-11 04:03 J -30281651.45 -30281651.33 -30281651.18 0.0148 0.0127
 Uranus -87619-05-16 13:25 J -30281281.01 -30281280.94 -30281280.85 0.0148 0.0138
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 Saturn -87617-01-19 19:25 J -30280667.82 -30280667.69 -30280667.54 0.0273 0.0221

Saturn -87616-01-30 06:27 J -30280291.46 -30280291.23 -30280290.99 0.0272 0.0072
 Saturn -87615-02-10 15:35 J -30279915.08 -30279914.85 -30279914.62 0.0272 0.0069
 Saturn -87614-02-22 08:23 J -30279538.31 -30279538.15 -30279537.99 0.0272 0.0194
 Saturn -87602-07-27 20:23 J -30274999.86 -30274999.65 -30274999.43 0.0287 0.0149
 Saturn -87601-08-10 14:51 J -30274620.14 -30274619.88 -30274619.62 0.0287 0.0026
 Saturn -87600-08-25 07:25 J -30274240.37 -30274240.19 -30274240.00 0.0288 0.0200
 Neptune -87597-03-14 23:44 J -30273307.60 -30273307.51 -30273307.37 0.0089 0.0078
 Neptune -87596-03-17 08:51 J -30272940.32 -30272940.13 -30272939.90 0.0089 0.0052
 Uranus -87596-09-05 07:39 J -30272768.30 -30272768.18 -30272768.01 0.0135 0.0114
 Neptune -87595-03-19 22:18 J -30272572.79 -30272572.57 -30272572.32 0.0089 0.0025
 Uranus -87595-09-10 05:30 J -30272398.41 -30272398.27 -30272398.12 0.0135 0.0110
 Neptune -87594-03-22 03:49 J -30272205.60 -30272205.34 -30272205.08 0.0089 0.0001
 Uranus -87594-09-14 11:59 J -30272029.17 -30272029.00 -30272028.79 0.0134 0.0093
 Neptune -87593-03-23 20:08 J -30271837.88 -30271837.66 -30271837.41 0.0089 0.0029
 Uranus -87593-09-18 06:42 J -30271659.41 -30271659.22 -30271659.00 0.0134 0.0078
 Neptune -87592-03-25 23:59 J -30271470.70 -30271470.50 -30271470.30 0.0089 0.0054
 Uranus -87592-09-22 12:13 J -30271290.20 -30271289.99 -30271289.76 0.0133 0.0074
 Neptune -87591-03-28 16:32 J -30271102.88 -30271102.81 -30271102.71 0.0089 0.0083
 Uranus -87591-09-27 04:47 J -30270920.54 -30270920.30 -30270920.07 0.0133 0.0048
 Uranus -87590-10-01 09:06 J -30270551.36 -30270551.12 -30270550.87 0.0133 0.0048
 Jupiter -87589-09-26 05:15 J -30270190.46 -30270190.28 -30270190.09 0.0519 0.0332
 Uranus -87589-10-04 22:32 J -30270181.80 -30270181.56 -30270181.30 0.0132 0.0024
 Uranus -87588-10-09 01:54 J -30269812.68 -30269812.42 -30269812.16 0.0132 0.0016
 Saturn -87587-01-25 16:03 J -30269704.02 -30269703.83 -30269703.63 0.0272 0.0136
 Uranus -87587-10-13 13:25 J -30269443.19 -30269442.94 -30269442.69 0.0132 0.0002
 Saturn -87586-02-06 10:18 J -30269327.31 -30269327.07 -30269326.83 0.0271 0.0010
 Uranus -87586-10-17 14:51 J -30269074.14 -30269073.88 -30269073.62 0.0132 0.0015
 Saturn -87585-02-17 21:35 J -30268950.81 -30268950.60 -30268950.39 0.0271 0.0139
 Uranus -87585-10-20 23:59 J -30268704.74 -30268704.50 -30268704.25 0.0131 0.0018
 Saturn -87584-02-28 08:08 J -30268574.23 -30268574.16 -30268574.08 0.0271 0.0255

Uranus -87584-10-24 23:59 J -30268335.74 -30268335.50 -30268335.24 0.0131 0.0043
 Jupiter -87583-03-20 01:39 J -30268189.59 -30268189.43 -30268189.27 0.0510 0.0367
 Uranus -87583-10-29 07:54 J -30267966.40 -30267966.17 -30267965.93 0.0131 0.0043
 Uranus -87582-11-02 07:11 J -30267597.42 -30267597.20 -30267596.97 0.0131 0.0066
 Uranus -87581-11-05 14:08 J -30267228.12 -30267227.91 -30267227.70 0.0131 0.0069
 Uranus -87580-11-09 12:13 J -30266859.17 -30266858.99 -30266858.77 0.0131 0.0084
 Uranus -87579-11-13 18:27 J -30266489.87 -30266489.73 -30266489.54 0.0131 0.0097
 Uranus -87578-11-17 16:03 J -30266120.98 -30266120.83 -30266120.64 0.0131 0.0101
 Jupiter -87577-09-30 23:15 J -30265802.77 -30265802.53 -30265802.30 0.0521 0.0009
 Uranus -87577-11-20 21:49 J -30265751.66 -30265751.59 -30265751.48 0.0131 0.0121
 Uranus -87576-11-24 19:11 J -30265382.81 -30265382.70 -30265382.59 0.0131 0.0118
 Saturn -87573-07-20 07:25 J -30264414.34 -30264414.19 -30264414.03 0.0287 0.0221
 Saturn -87572-08-04 05:01 J -30264034.52 -30264034.29 -30264034.04 0.0287 0.0051
 Jupiter -87571-03-24 20:08 J -30263801.88 -30263801.66 -30263801.44 0.0507 0.0068
 Saturn -87571-08-19 03:49 J -30263654.56 -30263654.34 -30263654.12 0.0288 0.0126
 Jupiter -87565-10-06 09:35 J -30261414.30 -30261414.10 -30261413.91 0.0524 0.0289
 Mars -87563-06-29 17:01 J -30260782.93 -30260782.79 -30260782.65 0.1711 0.1140
 Jupiter -87559-03-29 04:47 J -30259414.52 -30259414.30 -30259414.07 0.0505 0.0178
 Saturn -87558-01-20 18:27 J -30259116.88 -30259116.73 -30259116.55 0.0272 0.0200
 Saturn -87557-02-01 03:35 J -30258740.59 -30258740.35 -30258740.11 0.0272 0.0053
 Saturn -87556-02-11 18:42 J -30258363.94 -30258363.72 -30258363.50 0.0271 0.0082
 Saturn -87555-02-23 12:27 J -30257987.12 -30257986.98 -30257986.81 0.0271 0.0205
 Uranus -87552-02-24 06:27 J -30256890.32 -30256890.23 -30256890.10 0.0143 0.0127
 Uranus -87551-02-28 21:06 J -30256520.72 -30256520.62 -30256520.48 0.0144 0.0126
 Uranus -87550-03-05 15:20 J -30256151.00 -30256150.86 -30256150.69 0.0144 0.0108
 Uranus -87549-03-09 10:18 J -30255781.26 -30255781.07 -30255780.86 0.0145 0.0091
 Uranus -87548-03-14 05:15 J -30255411.45 -30255411.28 -30255411.07 0.0145 0.0087
 Uranus -87547-03-19 04:47 J -30255041.53 -30255041.30 -30255041.05 0.0146 0.0057
 Jupiter -87547-04-02 15:06 J -30255026.97 -30255026.87 -30255026.76 0.0503 0.0438
 Uranus -87546-03-24 00:13 J -30254671.71 -30254671.49 -30254671.26 0.0146 0.0055

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 Uranus -87544-04-01 23:30 J -30253931.76 -30253931.52 -30253931.27 0.0147 0.0011
 Uranus -87543-04-07 07:25 J -30253561.45 -30253561.19 -30253560.93 0.0147 0.0002
 Saturn -87543-07-28 17:01 J -30253449.02 -30253448.79 -30253448.55 0.0287 0.0132
 Uranus -87542-04-12 03:35 J -30253191.59 -30253191.35 -30253191.10 0.0148 0.0030
 Saturn -87542-08-12 10:18 J -30253069.32 -30253069.07 -30253068.81 0.0288 0.0042
 Mars -87542-12-30 18:13 J -30252928.91 -30252928.74 -30252928.58 0.1832 0.0576
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 Saturn -87541-08-26 05:01 J -30252689.44 -30252689.29 -30252689.11 0.0288 0.0215
 Uranus -87540-04-21 12:42 J -30252451.19 -30252450.97 -30252450.73 0.0148 0.0059
 Uranus -87539-04-27 01:25 J -30252080.65 -30252080.44 -30252080.22 0.0148 0.0077
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 Uranus -87535-05-17 04:47 J -30250599.36 -30250599.30 -30250599.20 0.0148 0.0140
 Saturn -87529-01-16 01:39 J -30248529.49 -30248529.43 -30248529.35 0.0273 0.0258
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 Mars -87516-06-21 07:25 J -30243624.36 -30243624.19 -30243624.01 0.1688 0.0664
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 Saturn -87514-07-22 12:56 J -30242863.12 -30242862.96 -30242862.78 0.0287 0.0201
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 Uranus -87512-09-05 22:03 J -30242086.69 -30242086.58 -30242086.45 0.0135 0.0119
 Neptune -87512-09-28 05:15 J -30242064.53 -30242064.28 -30242064.03 0.0088 0.0006

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 Neptune -87511-09-30 18:13 J -30241696.98 -30241696.74 -30241696.50 0.0088 0.0041
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 Uranus -87507-09-27 19:54 J -30240238.90 -30240238.67 -30240238.44 0.0133 0.0056
 Jupiter -87506-09-26 04:47 J -30239875.46 -30239875.30 -30239875.14 0.0519 0.0367
 Uranus -87506-10-01 23:01 J -30239869.78 -30239869.54 -30239869.27 0.0133 0.0030
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 Pluto -87502-06-19 04:18 J -30238513.55 -30238513.32 -30238513.05 0.0067 0.0023
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 Uranus -87499-10-29 23:15 J -30237284.74 -30237284.53 -30237284.30 0.0131 0.0059
 Saturn -87498-02-02 05:44 J -30237189.48 -30237189.26 -30237189.03 0.0272 0.0037
 Uranus -87498-11-02 21:20 J -30236915.83 -30236915.61 -30236915.36 0.0131 0.0059
 Saturn -87497-02-13 23:44 J -30236812.73 -30236812.51 -30236812.29 0.0271 0.0095
 Uranus -87497-11-06 05:15 J -30236546.48 -30236546.28 -30236546.09 0.0131 0.0078
 Saturn -87496-02-24 12:27 J -30236436.12 -30236435.98 -30236435.82 0.0271 0.0214
 Uranus -87496-11-10 02:23 J -30236177.59 -30236177.40 -30236177.20 0.0131 0.0084
 Uranus -87495-11-14 09:06 J -30235808.28 -30235808.12 -30235807.94 0.0131 0.0094
 Jupiter -87494-10-01 14:51 J -30235487.12 -30235486.88 -30235486.65 0.0521 0.0027
 Uranus -87494-11-18 05:44 J -30235439.38 -30235439.26 -30235439.11 0.0131 0.0110
 Uranus -87493-11-21 12:13 J -30235070.10 -30235069.99 -30235069.84 0.0131 0.0111
 Uranus -87491-11-29 15:35 J -30234331.89 -30234331.85 -30234331.78 0.0132 0.0128

Jupiter -87488-03-24 02:51 J -30233486.61 -30233486.38 -30233486.14 0.0508 0.0097
 Saturn -87485-07-14 22:03 J -30232277.64 -30232277.58 -30232277.49 0.0286 0.0274
 Saturn -87484-07-29 14:51 J -30231898.11 -30231897.88 -30231897.64 0.0287 0.0111
 Saturn -87483-08-13 11:59 J -30231518.24 -30231518.00 -30231517.76 0.0288 0.0060
 Saturn -87482-08-28 10:18 J -30231138.21 -30231138.07 -30231137.91 0.0288 0.0228
 Jupiter -87482-10-06 10:03 J -30231099.29 -30231099.08 -30231098.87 0.0523 0.0256
 Jupiter -87476-03-28 10:18 J -30229099.28 -30229099.07 -30229098.86 0.0506 0.0142
 Saturn -87470-01-17 06:56 J -30226978.31 -30226978.21 -30226978.08 0.0273 0.0237
 Saturn -87469-01-28 22:03 J -30226601.80 -30226601.58 -30226601.35 0.0272 0.0095
 Uranus -87469-02-21 01:25 J -30226578.52 -30226578.44 -30226578.32 0.0142 0.0131
 Saturn -87468-02-08 06:13 J -30226225.48 -30226225.24 -30226224.99 0.0272 0.0041
 Uranus -87468-02-24 19:25 J -30226208.75 -30226208.69 -30226208.59 0.0143 0.0135
 Saturn -87467-02-19 19:39 J -30225848.85 -30225848.68 -30225848.48 0.0271 0.0163
 Uranus -87467-03-01 08:37 J -30225839.29 -30225839.14 -30225838.97 0.0143 0.0111
 Uranus -87466-03-06 04:03 J -30225469.50 -30225469.33 -30225469.17 0.0144 0.0103
 Uranus -87465-03-09 21:20 J -30225099.81 -30225099.61 -30225099.41 0.0145 0.0091
 Uranus -87464-03-14 17:01 J -30224729.99 -30224729.79 -30224729.57 0.0145 0.0068
 Jupiter -87464-04-02 00:42 J -30224711.60 -30224711.47 -30224711.33 0.0504 0.0411
 Uranus -87463-03-19 15:20 J -30224360.09 -30224359.86 -30224359.63 0.0146 0.0066
 Uranus -87462-03-24 11:44 J -30223990.24 -30223990.01 -30223989.78 0.0146 0.0037
 Uranus -87461-03-28 14:37 J -30223620.14 -30223619.89 -30223619.64 0.0147 0.0029
 Uranus -87460-04-02 11:15 J -30223250.27 -30223250.03 -30223249.79 0.0147 0.0011
 Uranus -87459-04-07 18:27 J -30222879.98 -30222879.73 -30222879.47 0.0147 0.0015
 Uranus -87458-04-12 15:20 J -30222510.10 -30222509.86 -30222509.61 0.0148 0.0018
 Uranus -87457-04-17 02:08 J -30222139.65 -30222139.41 -30222139.17 0.0148 0.0049
 Uranus -87456-04-21 23:44 J -30221769.74 -30221769.51 -30221769.28 0.0148 0.0057
 Uranus -87455-04-27 12:42 J -30221399.19 -30221398.97 -30221398.76 0.0148 0.0074
 Saturn -87455-07-23 19:25 J -30221311.87 -30221311.69 -30221311.48 0.0287 0.0179
 Uranus -87454-05-02 12:27 J -30221029.16 -30221028.98 -30221028.78 0.0148 0.0101
 Saturn -87454-08-07 13:54 J -30220932.18 -30220931.92 -30220931.66 0.0287 0.0012

Uranus -87453-05-07 01:54 J -30220658.59 -30220658.42 -30220658.23 0.0148 0.0104
 Saturn -87453-08-21 05:59 J -30220552.46 -30220552.25 -30220552.02 0.0288 0.0157
 Uranus -87452-05-12 05:59 J -30220288.37 -30220288.25 -30220288.13 0.0148 0.0131
 Uranus -87451-05-17 17:30 J -30219917.83 -30219917.77 -30219917.68 0.0148 0.0140
 Saturn -87440-01-22 18:13 J -30216014.92 -30216014.74 -30216014.54 0.0272 0.0156
 Saturn -87439-02-03 12:27 J -30215638.21 -30215637.98 -30215637.75 0.0272 0.0017
 Saturn -87438-02-15 01:39 J -30215261.65 -30215261.43 -30215261.20 0.0271 0.0110
 Saturn -87437-02-26 10:18 J -30214885.20 -30214885.07 -30214884.92 0.0271 0.0223
 Mars -87437-06-23 22:32 J -30214766.77 -30214766.56 -30214766.35 0.1693 0.0264
 Neptune -87433-03-14 05:30 J -30213407.28 -30213407.27 -30213407.20 0.0089 0.0088
 Neptune -87432-03-16 19:25 J -30213039.82 -30213039.69 -30213039.52 0.0089 0.0071
 Neptune -87431-03-18 23:30 J -30212672.74 -30212672.52 -30212672.28 0.0089 0.0035
 Neptune -87430-03-21 16:18 J -30212305.06 -30212304.82 -30212304.57 0.0089 0.0018
 Uranus -87430-08-29 04:03 J -30212144.43 -30212144.33 -30212144.23 0.0136 0.0125
 Neptune -87429-03-22 19:54 J -30211937.91 -30211937.67 -30211937.42 0.0089 0.0018
 Uranus -87429-09-02 03:49 J -30211774.41 -30211774.34 -30211774.23 0.0136 0.0127
 Neptune -87428-03-25 11:30 J -30211570.24 -30211570.02 -30211569.76 0.0089 0.0036
 Uranus -87428-09-06 12:13 J -30211405.14 -30211404.99 -30211404.79 0.0135 0.0102
 Neptune -87427-03-27 17:44 J -30211202.89 -30211202.76 -30211202.60 0.0089 0.0071
 Uranus -87427-09-11 10:32 J -30211035.22 -30211035.06 -30211034.87 0.0135 0.0098
 Neptune -87426-03-30 06:27 J -30210835.25 -30210835.23 -30210835.19 0.0089 0.0088
 Saturn -87426-07-16 22:47 J -30210726.65 -30210726.55 -30210726.43 0.0286 0.0254
 Uranus -87426-09-15 16:32 J -30210666.00 -30210665.81 -30210665.58 0.0134 0.0082
 Saturn -87425-07-30 19:25 J -30210346.93 -30210346.69 -30210346.46 0.0287 0.0092
 Uranus -87425-09-19 12:27 J -30210296.19 -30210295.98 -30210295.75 0.0134 0.0066
 Saturn -87424-08-14 18:42 J -30209966.96 -30209966.72 -30209966.49 0.0288 0.0077
 Uranus -87424-09-23 17:01 J -30209927.01 -30209926.79 -30209926.54 0.0133 0.0063
 Saturn -87423-08-29 16:18 J -30209586.94 -30209586.82 -30209586.67 0.0288 0.0242
 Jupiter -87423-09-25 19:39 J -30209559.84 -30209559.68 -30209559.52 0.0518 0.0377
 Uranus -87423-09-28 10:47 J -30209557.29 -30209557.05 -30209556.80 0.0133 0.0037

Uranus	-87422-10-02 14:08 J	-30209188.16	-30209187.91	-30209187.66	0.0133	0.0037
Uranus	-87421-10-06 05:01 J	-30208818.54	-30208818.29	-30208818.04	0.0132	0.0012
Uranus	-87420-10-10 06:42 J	-30208449.48	-30208449.22	-30208448.96	0.0132	0.0007
Uranus	-87419-10-14 19:11 J	-30208079.94	-30208079.70	-30208079.44	0.0132	0.0008
Uranus	-87418-10-18 18:56 J	-30207710.97	-30207710.71	-30207710.45	0.0131	0.0023
Jupiter	-87417-03-18 18:56 J	-30207558.84	-30207558.71	-30207558.57	0.0511	0.0414
Uranus	-87417-10-22 05:30 J	-30207341.51	-30207341.27	-30207341.02	0.0131	0.0027
Uranus	-87416-10-26 04:18 J	-30206972.56	-30206972.32	-30206972.08	0.0131	0.0051
Pluto	-87416-12-23 22:18 J	-30206913.81	-30206913.57	-30206913.31	0.0078	0.0017
Mars	-87416-12-24 07:39 J	-30206913.31	-30206913.18	-30206913.05	0.1854	0.1403 *
Uranus	-87415-10-30 13:25 J	-30206603.16	-30206602.94	-30206602.70	0.0131	0.0050
Uranus	-87414-11-03 11:15 J	-30206234.23	-30206234.03	-30206233.80	0.0131	0.0073
Uranus	-87413-11-06 20:08 J	-30205864.87	-30205864.66	-30205864.46	0.0131	0.0074
Uranus	-87412-11-10 16:32 J	-30205495.98	-30205495.81	-30205495.60	0.0131	0.0089
Saturn	-87411-01-18 09:35 J	-30205427.25	-30205427.10	-30205426.95	0.0273	0.0214
Jupiter	-87411-09-30 12:42 J	-30205172.20	-30205171.97	-30205171.73	0.0520	0.0064
Uranus	-87411-11-15 00:27 J	-30205126.62	-30205126.48	-30205126.31	0.0131	0.0100
Saturn	-87410-01-29 19:39 J	-30205050.91	-30205050.68	-30205050.44	0.0272	0.0073
Uranus	-87410-11-18 20:23 J	-30204757.79	-30204757.65	-30204757.48	0.0131	0.0104
Saturn	-87409-02-10 07:54 J	-30204674.39	-30204674.17	-30204673.94	0.0272	0.0060
Uranus	-87409-11-22 03:35 J	-30204388.40	-30204388.35	-30204388.25	0.0131	0.0125
Saturn	-87408-02-21 02:37 J	-30204297.56	-30204297.39	-30204297.21	0.0271	0.0176
Uranus	-87408-11-25 23:30 J	-30204019.62	-30204019.52	-30204019.41	0.0131	0.0120
Jupiter	-87405-03-23 06:27 J	-30203171.45	-30203171.23	-30203171.02	0.0509	0.0138
Jupiter	-87399-10-05 15:49 J	-30200784.05	-30200783.84	-30200783.63	0.0522	0.0206
Saturn	-87396-07-24 22:32 J	-30199760.77	-30199760.56	-30199760.33	0.0287	0.0158
Saturn	-87395-08-08 15:06 J	-30199381.13	-30199380.87	-30199380.61	0.0288	0.0009
Saturn	-87394-08-23 08:23 J	-30199001.34	-30199001.15	-30199000.94	0.0288	0.0176
Jupiter	-87393-03-27 23:01 J	-30198783.77	-30198783.54	-30198783.31	0.0506	0.0108
Uranus	-87386-02-17 05:15 J	-30196266.33	-30196266.28	-30196266.20	0.0142	0.0136

Uranus	-87385-02-21 13:54 J	-30195896.96	-30195896.92	-30195896.86	0.0142	0.0139
Uranus	-87384-02-25 08:51 J	-30195527.26	-30195527.13	-30195526.98	0.0143	0.0115
Uranus	-87383-03-01 21:20 J	-30195157.75	-30195157.61	-30195157.45	0.0143	0.0114
Uranus	-87382-03-06 17:44 J	-30194787.93	-30194787.76	-30194787.57	0.0144	0.0095
Saturn	-87381-01-25 02:08 J	-30194463.60	-30194463.41	-30194463.20	0.0272	0.0135
Uranus	-87381-03-10 10:18 J	-30194418.28	-30194418.07	-30194417.85	0.0145	0.0079
Jupiter	-87381-04-01 04:32 J	-30194396.45	-30194396.31	-30194396.17	0.0504	0.0391
Saturn	-87380-02-04 17:30 J	-30194087.01	-30194086.77	-30194086.53	0.0272	0.0004
Uranus	-87380-03-15 07:25 J	-30194048.38	-30194048.19	-30194047.97	0.0145	0.0074
Saturn	-87379-02-16 01:11 J	-30193710.66	-30193710.45	-30193710.22	0.0271	0.0123
Uranus	-87379-03-20 04:18 J	-30193678.56	-30193678.32	-30193678.07	0.0146	0.0046
Saturn	-87378-02-27 13:54 J	-30193334.03	-30193333.92	-30193333.80	0.0271	0.0236
Uranus	-87378-03-25 01:25 J	-30193308.66	-30193308.44	-30193308.20	0.0146	0.0044
Uranus	-87377-03-29 03:06 J	-30192938.63	-30192938.37	-30192938.11	0.0147	0.0019
Uranus	-87376-04-03 00:13 J	-30192568.73	-30192568.49	-30192568.24	0.0147	0.0002
Uranus	-87375-04-08 06:27 J	-30192198.49	-30192198.23	-30192197.97	0.0147	0.0008
Uranus	-87374-04-13 03:35 J	-30191828.58	-30191828.35	-30191828.10	0.0148	0.0039
Uranus	-87373-04-17 13:54 J	-30191458.15	-30191457.92	-30191457.66	0.0148	0.0041
Uranus	-87372-04-22 12:27 J	-30191088.21	-30191087.98	-30191087.75	0.0148	0.0066
Uranus	-87371-04-28 01:11 J	-30190717.64	-30190717.45	-30190717.22	0.0148	0.0084
Uranus	-87370-05-03 01:25 J	-30190347.63	-30190347.44	-30190347.23	0.0148	0.0091
Uranus	-87369-05-07 15:35 J	-30189976.99	-30189976.85	-30189976.71	0.0148	0.0121
Uranus	-87368-05-12 17:44 J	-30189606.89	-30189606.76	-30189606.59	0.0148	0.0122
Uranus	-87367-05-18 06:42 J	-30189236.27	-30189236.22	-30189236.14	0.0148	0.0142
Saturn	-87367-07-18 08:37 J	-30189175.27	-30189175.14	-30189175.00	0.0286	0.0234
Saturn	-87366-08-02 05:44 J	-30188795.50	-30188795.26	-30188795.02	0.0287	0.0071
Saturn	-87365-08-16 02:37 J	-30188415.62	-30188415.39	-30188415.15	0.0287	0.0098
Saturn	-87364-08-30 20:08 J	-30188035.76	-30188035.66	-30188035.54	0.0288	0.0258
Mars	-87358-06-27 22:47 J	-30185908.70	-30185908.55	-30185908.39	0.1698	0.1120
Saturn	-87352-01-19 08:23 J	-30183876.32	-30183876.15	-30183875.97	0.0273	0.0192

Saturn -87351-01-30 21:20 J -30183499.84 -30183499.61 -30183499.37 0.0272 0.0052
 Neptune -87351-09-20 13:25 J -30183267.00 -30183266.94 -30183266.83 0.0088 0.0084
 Saturn -87350-02-11 15:06 J -30183123.08 -30183122.87 -30183122.64 0.0272 0.0077
 Neptune -87350-09-23 06:13 J -30182899.41 -30182899.24 -30182899.03 0.0088 0.0063
 Saturn -87349-02-23 07:54 J -30182746.34 -30182746.17 -30182746.00 0.0271 0.0191
 Neptune -87349-09-24 18:56 J -30182531.94 -30182531.71 -30182531.46 0.0088 0.0029
 Neptune -87348-09-27 06:27 J -30182164.50 -30182164.23 -30182163.96 0.0088 0.0008
 Uranus -87347-08-25 05:59 J -30181832.30 -30181832.25 -30181832.16 0.0137 0.0132
 Neptune -87347-09-29 23:01 J -30181796.78 -30181796.54 -30181796.29 0.0088 0.0024
 Uranus -87346-08-29 17:30 J -30181462.82 -30181462.77 -30181462.68 0.0136 0.0132
 Neptune -87346-10-02 05:44 J -30181429.48 -30181429.26 -30181429.02 0.0088 0.0045
 Uranus -87345-09-02 17:44 J -30181092.91 -30181092.76 -30181092.59 0.0136 0.0106
 Neptune -87345-10-04 01:11 J -30181061.55 -30181061.45 -30181061.31 0.0088 0.0078
 Uranus -87344-09-07 02:37 J -30180723.53 -30180723.39 -30180723.22 0.0135 0.0108
 Uranus -87343-09-12 00:42 J -30180353.65 -30180353.47 -30180353.25 0.0135 0.0085
 Uranus -87342-09-16 07:25 J -30179984.39 -30179984.19 -30179983.96 0.0134 0.0076
 Uranus -87341-09-20 03:20 J -30179614.57 -30179614.36 -30179614.12 0.0134 0.0067
 Uranus -87340-09-24 08:08 J -30179245.40 -30179245.16 -30179244.91 0.0133 0.0045
 Jupiter -87340-09-24 11:59 J -30179245.13 -30179245.00 -30179244.86 0.0517 0.0424 *
 Uranus -87339-09-29 01:39 J -30178875.66 -30178875.43 -30178875.18 0.0133 0.0045
 Uranus -87338-10-03 04:03 J -30178506.58 -30178506.33 -30178506.06 0.0133 0.0019
 Saturn -87337-07-26 01:54 J -30178209.65 -30178209.42 -30178209.19 0.0287 0.0136
 Uranus -87337-10-06 19:25 J -30178136.94 -30178136.69 -30178136.43 0.0132 0.0017
 Mars -87337-12-27 13:39 J -30178055.14 -30178054.93 -30178054.73 0.1847 0.0139
 Saturn -87336-08-09 20:37 J -30177829.89 -30177829.64 -30177829.39 0.0288 0.0031
 Uranus -87336-10-10 20:37 J -30177767.90 -30177767.64 -30177767.38 0.0132 0.0004
 Saturn -87335-08-24 17:44 J -30177449.92 -30177449.76 -30177449.57 0.0288 0.0196
 Uranus -87335-10-15 09:49 J -30177398.34 -30177398.09 -30177397.84 0.0132 0.0013
 Jupiter -87334-03-19 02:23 J -30177243.50 -30177243.40 -30177243.29 0.0512 0.0445
 Uranus -87334-10-19 09:20 J -30177029.37 -30177029.11 -30177028.85 0.0131 0.0021

Uranus	-87333-10-22 20:51 J	-30176659.86	-30176659.63	-30176659.39	0.0131	0.0042
Uranus	-87332-10-26 18:56 J	-30176290.94	-30176290.71	-30176290.45	0.0131	0.0042
Uranus	-87331-10-31 05:15 J	-30175921.49	-30175921.28	-30175921.06	0.0131	0.0066
Uranus	-87330-11-04 02:23 J	-30175552.63	-30175552.40	-30175552.18	0.0131	0.0064
Uranus	-87329-11-07 11:01 J	-30175183.22	-30175183.04	-30175182.84	0.0131	0.0084
Jupiter	-87328-09-29 18:42 J	-30174856.95	-30174856.72	-30174856.50	0.0519	0.0118
Uranus	-87328-11-11 07:11 J	-30174814.38	-30174814.20	-30174814.00	0.0131	0.0089
Uranus	-87327-11-15 15:06 J	-30174445.01	-30174444.87	-30174444.68	0.0131	0.0099
Uranus	-87326-11-19 11:01 J	-30174076.15	-30174076.04	-30174075.90	0.0131	0.0114
Uranus	-87325-11-22 19:25 J	-30173706.81	-30173706.69	-30173706.57	0.0131	0.0114
Saturn	-87323-01-14 14:23 J	-30173288.97	-30173288.90	-30173288.82	0.0273	0.0256
Uranus	-87323-11-30 21:35 J	-30172968.63	-30172968.60	-30172968.53	0.0131	0.0129
Saturn	-87322-01-26 08:51 J	-30172912.34	-30172912.13	-30172911.91	0.0272	0.0113
Jupiter	-87322-03-23 18:42 J	-30172855.93	-30172855.72	-30172855.49	0.0509	0.0171
Saturn	-87321-02-06 18:42 J	-30172535.97	-30172535.72	-30172535.48	0.0272	0.0021
Saturn	-87320-02-17 04:47 J	-30172159.49	-30172159.30	-30172159.09	0.0271	0.0142
Saturn	-87319-02-28 23:30 J	-30171782.60	-30171782.52	-30171782.43	0.0271	0.0251
Jupiter	-87316-10-04 18:13 J	-30170468.97	-30170468.74	-30170468.51	0.0522	0.0166
Mars	-87311-06-19 22:32 J	-30168749.67	-30168749.56	-30168749.45	0.1677	0.1405
Jupiter	-87310-03-28 00:27 J	-30168468.71	-30168468.48	-30168468.26	0.0507	0.0072
Saturn	-87308-07-19 21:06 J	-30167623.78	-30167623.62	-30167623.45	0.0286	0.0212
Saturn	-87307-08-03 15:35 J	-30167244.10	-30167243.85	-30167243.59	0.0287	0.0048
Saturn	-87306-08-18 08:51 J	-30166864.36	-30166864.13	-30166863.89	0.0287	0.0117
Saturn	-87305-09-01 00:13 J	-30166484.56	-30166484.49	-30166484.41	0.0288	0.0274
Jupiter	-87304-10-09 20:51 J	-30166080.68	-30166080.63	-30166080.58	0.0524	0.0510
Uranus	-87302-02-17 19:11 J	-30165584.70	-30165584.70	-30165584.69	0.0141	0.0141
Uranus	-87301-02-22 02:37 J	-30165215.51	-30165215.39	-30165215.24	0.0142	0.0119
Uranus	-87300-02-25 22:32 J	-30164845.68	-30164845.56	-30164845.44	0.0143	0.0123
Uranus	-87299-03-02 09:06 J	-30164476.28	-30164476.12	-30164475.92	0.0143	0.0099
Uranus	-87298-03-07 06:27 J	-30164106.40	-30164106.23	-30164106.04	0.0144	0.0092

Jupiter -87298-04-01 13:54 J -30164081.07 -30164080.92 -30164080.75 0.0505 0.0355
 Uranus -87297-03-10 21:20 J -30163736.81 -30163736.61 -30163736.39 0.0144 0.0079
 Uranus -87296-03-15 19:25 J -30163366.90 -30163366.69 -30163366.46 0.0145 0.0057
 Uranus -87295-03-20 14:37 J -30162997.11 -30162996.89 -30162996.64 0.0146 0.0056
 Uranus -87294-03-25 13:39 J -30162627.17 -30162626.93 -30162626.70 0.0146 0.0027
 Saturn -87293-01-21 11:01 J -30162325.23 -30162325.04 -30162324.86 0.0274 0.0171
 Uranus -87293-03-29 13:39 J -30162257.18 -30162256.93 -30162256.67 0.0146 0.0019
 Saturn -87292-02-01 05:59 J -30161948.48 -30161948.25 -30161948.02 0.0273 0.0033
 Uranus -87292-04-03 12:27 J -30161887.22 -30161886.98 -30161886.74 0.0147 0.0002
 Saturn -87291-02-12 23:01 J -30161571.76 -30161571.54 -30161571.31 0.0272 0.0095
 Uranus -87291-04-08 17:30 J -30161517.03 -30161516.77 -30161516.52 0.0147 0.0023
 Saturn -87290-02-24 09:35 J -30161195.25 -30161195.10 -30161194.93 0.0272 0.0206
 Uranus -87290-04-13 15:49 J -30161147.08 -30161146.84 -30161146.60 0.0147 0.0026
 Uranus -87289-04-18 00:56 J -30160776.69 -30160776.46 -30160776.21 0.0148 0.0057
 Uranus -87288-04-22 23:15 J -30160406.75 -30160406.53 -30160406.29 0.0148 0.0064
 Uranus -87287-04-28 12:13 J -30160036.19 -30160035.99 -30160035.77 0.0148 0.0081
 Uranus -87286-05-03 11:59 J -30159666.17 -30159666.00 -30159665.82 0.0148 0.0106
 Uranus -87285-05-08 02:08 J -30159295.56 -30159295.41 -30159295.22 0.0148 0.0108
 Uranus -87284-05-13 04:18 J -30158925.40 -30158925.32 -30158925.19 0.0148 0.0135
 Uranus -87283-05-18 18:27 J -30158554.79 -30158554.73 -30158554.65 0.0148 0.0141
 Mars -87279-06-30 15:49 J -30157050.91 -30157050.84 -30157050.76 0.1704 0.1572
 Saturn -87279-07-13 19:54 J -30157037.74 -30157037.67 -30157037.58 0.0285 0.0271
 Saturn -87278-07-28 13:39 J -30156658.16 -30156657.93 -30156657.70 0.0287 0.0114
 Saturn -87277-08-11 11:15 J -30156278.27 -30156278.03 -30156277.79 0.0288 0.0053
 Saturn -87276-08-26 09:06 J -30155898.28 -30155898.12 -30155897.96 0.0288 0.0216
 Neptune -87268-03-15 19:25 J -30153139.77 -30153139.69 -30153139.56 0.0089 0.0081
 Neptune -87267-03-18 11:59 J -30152772.18 -30152772.00 -30152771.77 0.0089 0.0054
 Neptune -87266-03-20 16:03 J -30152405.06 -30152404.83 -30152404.59 0.0089 0.0028
 Neptune -87265-03-22 07:25 J -30152037.45 -30152037.19 -30152036.93 0.0089 0.0002
 Saturn -87264-01-15 23:15 J -30151737.64 -30151737.53 -30151737.40 0.0273 0.0235

Neptune -87264-03-24 14:23 J -30151670.14 -30151669.90 -30151669.67 0.0089 0.0024
 Saturn -87263-01-27 11:44 J -30151361.24 -30151361.01 -30151360.77 0.0272 0.0093
 Neptune -87263-03-27 01:11 J -30151302.67 -30151302.45 -30151302.24 0.0089 0.0051
 Uranus -87263-08-25 18:56 J -30151150.76 -30151150.71 -30151150.64 0.0137 0.0133
 Saturn -87262-02-07 21:49 J -30150984.83 -30150984.59 -30150984.35 0.0272 0.0039
 Neptune -87262-03-29 12:56 J -30150935.07 -30150934.96 -30150934.84 0.0089 0.0078
 Uranus -87262-08-30 07:11 J -30150781.31 -30150781.20 -30150781.03 0.0137 0.0115
 Saturn -87261-02-19 14:37 J -30150608.08 -30150607.89 -30150607.71 0.0271 0.0158
 Uranus -87261-09-03 07:11 J -30150411.32 -30150411.20 -30150411.05 0.0136 0.0115
 Saturn -87260-03-02 09:06 J -30150231.16 -30150231.12 -30150231.07 0.0271 0.0265
 Uranus -87260-09-07 16:32 J -30150041.99 -30150041.81 -30150041.60 0.0135 0.0089
 Uranus -87259-09-12 14:51 J -30149672.08 -30149671.88 -30149671.67 0.0135 0.0086
 Uranus -87258-09-16 21:20 J -30149302.83 -30149302.61 -30149302.39 0.0134 0.0070
 Mars -87258-12-31 12:27 J -30149197.14 -30149196.98 -30149196.82 0.1840 0.0889
 Uranus -87257-09-20 17:30 J -30148933.00 -30148932.77 -30148932.53 0.0134 0.0055
 Jupiter -87257-09-23 21:06 J -30148929.72 -30148929.62 -30148929.50 0.0517 0.0457
 Pluto -87256-06-19 23:01 J -30148660.69 -30148660.54 -30148660.35 0.0067 0.0051
 Uranus -87256-09-24 22:03 J -30148563.82 -30148563.58 -30148563.34 0.0133 0.0052
 Pluto -87255-06-21 11:59 J -30148294.20 -30148294.00 -30148293.78 0.0067 0.0043
 Uranus -87255-09-29 16:03 J -30148194.08 -30148193.83 -30148193.57 0.0133 0.0026
 Uranus -87254-10-03 18:42 J -30147824.97 -30147824.72 -30147824.46 0.0133 0.0027
 Uranus -87253-10-07 10:32 J -30147455.32 -30147455.06 -30147454.80 0.0132 0.0002
 Uranus -87252-10-11 11:01 J -30147086.29 -30147086.04 -30147085.77 0.0132 0.0003
 Jupiter -87251-03-18 12:13 J -30146928.07 -30146927.99 -30146927.90 0.0512 0.0473
 Uranus -87251-10-16 00:42 J -30146716.72 -30146716.47 -30146716.21 0.0132 0.0016
 Uranus -87250-10-19 23:30 J -30146347.77 -30146347.52 -30146347.26 0.0132 0.0031
 Saturn -87249-07-21 07:11 J -30146072.38 -30146072.20 -30146071.99 0.0286 0.0189
 Uranus -87249-10-23 11:30 J -30145978.26 -30145978.02 -30145977.77 0.0131 0.0034
 Saturn -87248-08-04 22:47 J -30145692.81 -30145692.55 -30145692.28 0.0287 0.0028
 Uranus -87248-10-27 09:06 J -30145609.34 -30145609.12 -30145608.88 0.0131 0.0058

Saturn -87247-08-19 16:03 J -30145313.05 -30145312.83 -30145312.60 0.0287 0.0138
 Uranus -87247-10-31 19:39 J -30145239.89 -30145239.68 -30145239.44 0.0131 0.0056
 Uranus -87246-11-04 16:32 J -30144871.00 -30144870.81 -30144870.59 0.0131 0.0079
 Jupiter -87245-09-28 20:08 J -30144541.89 -30144541.66 -30144541.42 0.0519 0.0153
 Uranus -87245-11-08 02:37 J -30144501.59 -30144501.39 -30144501.19 0.0131 0.0079
 Uranus -87244-11-11 22:18 J -30144132.73 -30144132.57 -30144132.38 0.0131 0.0094
 Uranus -87243-11-16 07:25 J -30143763.33 -30143763.19 -30143763.03 0.0131 0.0104
 Uranus -87242-11-20 02:08 J -30143394.53 -30143394.41 -30143394.24 0.0131 0.0108
 Uranus -87241-11-23 10:18 J -30143025.11 -30143025.07 -30143024.99 0.0131 0.0127
 Uranus -87240-11-27 05:01 J -30142656.37 -30142656.29 -30142656.18 0.0131 0.0121
 Jupiter -87239-03-22 13:54 J -30142541.12 -30142540.92 -30142540.71 0.0510 0.0227
 Saturn -87234-01-22 18:42 J -30140773.90 -30140773.72 -30140773.52 0.0274 0.0151
 Saturn -87233-02-03 14:37 J -30140397.13 -30140396.89 -30140396.66 0.0273 0.0012
 Jupiter -87233-10-03 21:06 J -30140153.84 -30140153.62 -30140153.40 0.0521 0.0125
 Saturn -87232-02-14 02:08 J -30140020.63 -30140020.41 -30140020.18 0.0272 0.0111
 Mars -87232-06-22 09:20 J -30139892.30 -30139892.11 -30139891.93 0.1681 0.0194
 Saturn -87231-02-25 12:42 J -30139644.11 -30139643.97 -30139643.83 0.0272 0.0221
 Jupiter -87227-03-27 07:25 J -30138153.42 -30138153.19 -30138152.96 0.0508 0.0019
 Jupiter -87221-10-08 20:51 J -30135765.74 -30135765.63 -30135765.50 0.0523 0.0453
 Saturn -87220-07-15 10:32 J -30135486.17 -30135486.06 -30135485.93 0.0286 0.0250
 Uranus -87219-02-13 16:03 J -30135272.84 -30135272.83 -30135272.80 0.0141 0.0140
 Saturn -87219-07-30 07:11 J -30135106.43 -30135106.20 -30135105.96 0.0287 0.0092
 Uranus -87218-02-18 10:03 J -30134903.17 -30134903.08 -30134902.94 0.0141 0.0125
 Saturn -87218-08-14 04:32 J -30134726.55 -30134726.31 -30134726.07 0.0288 0.0075
 Uranus -87217-02-22 17:44 J -30134533.86 -30134533.76 -30134533.64 0.0142 0.0127
 Saturn -87217-08-27 23:30 J -30134346.65 -30134346.52 -30134346.37 0.0288 0.0237
 Uranus -87216-02-26 13:54 J -30134164.07 -30134163.92 -30134163.74 0.0143 0.0103
 Uranus -87215-03-03 00:27 J -30133794.64 -30133794.48 -30133794.29 0.0143 0.0103
 Jupiter -87215-03-31 12:27 J -30133766.16 -30133765.98 -30133765.79 0.0506 0.0317
 Uranus -87214-03-07 22:32 J -30133424.74 -30133424.56 -30133424.35 0.0144 0.0083

Uranus	-87213-03-11 12:42 J	-30133055.19	-30133054.97	-30133054.74	0.0144	0.0068
Uranus	-87212-03-16 11:30 J	-30132685.23	-30132685.02	-30132684.79	0.0145	0.0063
Uranus	-87211-03-21 05:44 J	-30132315.51	-30132315.26	-30132315.01	0.0146	0.0035
Uranus	-87210-03-26 05:01 J	-30131945.53	-30131945.29	-30131945.06	0.0146	0.0033
Uranus	-87209-03-30 03:49 J	-30131575.60	-30131575.34	-30131575.08	0.0146	0.0008
Uranus	-87208-04-04 03:06 J	-30131205.61	-30131205.37	-30131205.13	0.0147	0.0007
Uranus	-87207-04-09 06:56 J	-30130835.47	-30130835.21	-30130834.95	0.0147	0.0017
Uranus	-87206-04-14 06:13 J	-30130465.47	-30130465.24	-30130465.01	0.0147	0.0046
Saturn	-87205-01-18 04:47 J	-30130186.45	-30130186.30	-30130186.14	0.0273	0.0211
Uranus	-87205-04-18 14:51 J	-30130095.12	-30130094.88	-30130094.63	0.0148	0.0048
Saturn	-87204-01-28 15:49 J	-30129810.07	-30129809.84	-30129809.61	0.0272	0.0071
Uranus	-87204-04-23 14:08 J	-30129725.12	-30129724.91	-30129724.69	0.0148	0.0074
Saturn	-87203-02-09 07:54 J	-30129433.39	-30129433.17	-30129432.94	0.0272	0.0057
Uranus	-87203-04-29 02:37 J	-30129354.57	-30129354.39	-30129354.16	0.0148	0.0090
Saturn	-87202-02-21 01:39 J	-30129056.60	-30129056.43	-30129056.24	0.0271	0.0175
Uranus	-87202-05-04 02:23 J	-30128984.57	-30128984.40	-30128984.19	0.0148	0.0097
Uranus	-87201-05-08 17:15 J	-30128613.90	-30128613.78	-30128613.64	0.0148	0.0125
Uranus	-87200-05-13 18:27 J	-30128243.86	-30128243.73	-30128243.58	0.0148	0.0124
Uranus	-87199-05-19 08:51 J	-30127873.17	-30127873.13	-30127873.07	0.0148	0.0144
Saturn	-87190-07-23 17:44 J	-30124520.97	-30124520.76	-30124520.55	0.0286	0.0165
Saturn	-87189-08-06 10:32 J	-30124141.32	-30124141.06	-30124140.81	0.0287	0.0006
Saturn	-87188-08-21 06:56 J	-30123761.41	-30123761.21	-30123761.01	0.0287	0.0161
Neptune	-87186-09-22 06:42 J	-30122999.34	-30122999.22	-30122999.05	0.0088	0.0073
Neptune	-87185-09-23 17:01 J	-30122632.00	-30122631.79	-30122631.55	0.0088	0.0050
Neptune	-87184-09-26 12:27 J	-30122264.23	-30122263.98	-30122263.72	0.0088	0.0019
Neptune	-87183-09-28 18:56 J	-30121896.97	-30121896.71	-30121896.44	0.0088	0.0003
Neptune	-87182-10-01 14:51 J	-30121529.11	-30121528.88	-30121528.63	0.0088	0.0036
Neptune	-87181-10-02 21:06 J	-30121161.81	-30121161.62	-30121161.41	0.0088	0.0057
Uranus	-87180-08-21 07:54 J	-30120839.20	-30120839.17	-30120839.09	0.0138	0.0134
Uranus	-87179-08-26 08:08 J	-30120469.27	-30120469.16	-30120469.02	0.0137	0.0121

Uranus -87178-08-30 21:20 J -30120099.72 -30120099.61 -30120099.47 0.0137 0.0120
 Uranus -87177-09-03 20:51 J -30119729.82 -30119729.63 -30119729.43 0.0136 0.0094
 Saturn -87176-01-12 06:42 J -30119599.26 -30119599.22 -30119599.16 0.0275 0.0267
 Uranus -87176-09-08 06:56 J -30119360.38 -30119360.21 -30119360.02 0.0135 0.0096
 Saturn -87175-01-24 04:47 J -30119222.50 -30119222.30 -30119222.09 0.0274 0.0128
 Uranus -87175-09-13 04:47 J -30118990.51 -30118990.30 -30118990.07 0.0135 0.0073
 Saturn -87174-02-04 18:42 J -30118845.96 -30118845.72 -30118845.47 0.0273 0.0008
 Uranus -87174-09-17 11:59 J -30118621.21 -30118621.00 -30118620.76 0.0134 0.0065
 Jupiter -87174-09-23 19:39 J -30118614.75 -30118614.68 -30118614.60 0.0516 0.0490
 Saturn -87173-02-16 04:18 J -30118469.53 -30118469.32 -30118469.10 0.0272 0.0126
 Uranus -87173-09-21 08:08 J -30118251.38 -30118251.16 -30118250.91 0.0134 0.0056
 Saturn -87172-02-26 20:37 J -30118092.74 -30118092.64 -30118092.52 0.0272 0.0239
 Uranus -87172-09-25 12:56 J -30117882.21 -30117881.96 -30117881.71 0.0133 0.0035
 Uranus -87171-09-30 06:42 J -30117512.46 -30117512.22 -30117511.97 0.0133 0.0035
 Uranus -87170-10-04 08:51 J -30117143.38 -30117143.13 -30117142.87 0.0133 0.0008
 Pluto -87170-12-25 13:25 J -30117061.16 -30117060.94 -30117060.70 0.0078 0.0027
 Uranus -87169-10-08 00:42 J -30116773.72 -30116773.47 -30116773.21 0.0132 0.0007
 Uranus -87168-10-12 01:11 J -30116404.71 -30116404.45 -30116404.19 0.0132 0.0012
 Uranus -87167-10-16 15:06 J -30116035.12 -30116034.87 -30116034.62 0.0132 0.0021
 Uranus -87166-10-20 13:54 J -30115666.16 -30115665.92 -30115665.66 0.0132 0.0029
 Uranus -87165-10-24 02:23 J -30115296.63 -30115296.40 -30115296.16 0.0131 0.0049
 Uranus -87164-10-27 23:59 J -30114927.73 -30114927.50 -30114927.25 0.0131 0.0048
 Uranus -87163-11-01 10:47 J -30114558.24 -30114558.05 -30114557.82 0.0131 0.0073
 Jupiter -87162-09-28 16:47 J -30114227.01 -30114226.80 -30114226.59 0.0518 0.0214
 Uranus -87162-11-05 07:25 J -30114189.39 -30114189.19 -30114188.96 0.0131 0.0070
 Saturn -87161-07-17 05:30 J -30113934.41 -30113934.27 -30113934.11 0.0286 0.0226
 Uranus -87161-11-08 17:15 J -30113819.94 -30113819.78 -30113819.58 0.0131 0.0089
 Saturn -87160-08-01 00:42 J -30113554.71 -30113554.47 -30113554.22 0.0287 0.0067
 Uranus -87160-11-12 13:25 J -30113451.12 -30113450.94 -30113450.77 0.0131 0.0093
 Saturn -87159-08-15 18:42 J -30113174.96 -30113174.72 -30113174.47 0.0288 0.0098

Uranus -87159-11-16 22:32 J -30113081.72 -30113081.56 -30113081.41 0.0131 0.0102
 Saturn -87158-08-30 10:47 J -30112795.17 -30112795.05 -30112794.93 0.0288 0.0255
 Uranus -87158-11-20 17:15 J -30112712.89 -30112712.78 -30112712.67 0.0131 0.0117
 Uranus -87157-11-24 01:54 J -30112343.53 -30112343.42 -30112343.30 0.0131 0.0116
 Jupiter -87156-03-22 00:56 J -30112225.64 -30112225.46 -30112225.26 0.0511 0.0275
 Uranus -87155-12-02 04:03 J -30111605.37 -30111605.33 -30111605.27 0.0132 0.0129
 Mars -87153-06-24 13:39 J -30111035.12 -30111034.93 -30111034.75 0.1686 0.0145
 Jupiter -87150-10-03 18:42 J -30109838.96 -30109838.72 -30109838.48 0.0520 0.0062
 Saturn -87146-01-19 07:54 J -30108635.33 -30108635.17 -30108634.98 0.0273 0.0187
 Saturn -87145-01-31 00:27 J -30108258.70 -30108258.48 -30108258.25 0.0272 0.0051
 Saturn -87144-02-10 19:39 J -30107881.90 -30107881.68 -30107881.46 0.0272 0.0074
 Jupiter -87144-03-26 06:42 J -30107838.45 -30107838.22 -30107837.98 0.0508 0.0017
 Saturn -87143-02-22 09:06 J -30107505.29 -30107505.12 -30107504.95 0.0271 0.0189
 Jupiter -87138-10-08 14:37 J -30105451.02 -30105450.89 -30105450.74 0.0523 0.0410
 Uranus -87136-02-10 03:20 J -30104960.37 -30104960.36 -30104960.34 0.0140 0.0139
 Uranus -87135-02-14 07:25 J -30104591.27 -30104591.19 -30104591.09 0.0141 0.0130
 Uranus -87134-02-19 02:23 J -30104221.49 -30104221.40 -30104221.30 0.0141 0.0130
 Uranus -87133-02-23 08:51 J -30103852.28 -30103852.13 -30103851.95 0.0142 0.0107
 Uranus -87132-02-27 05:30 J -30103482.41 -30103482.27 -30103482.10 0.0143 0.0111
 Jupiter -87132-03-30 23:44 J -30103450.69 -30103450.51 -30103450.32 0.0506 0.0289
 Mars -87132-12-24 14:51 J -30103182.02 -30103181.88 -30103181.75 0.1863 0.1196
 Uranus -87131-03-03 15:06 J -30103113.06 -30103112.87 -30103112.66 0.0143 0.0086
 Saturn -87131-07-25 07:54 J -30102969.39 -30102969.17 -30102968.95 0.0286 0.0139
 Uranus -87130-03-08 13:11 J -30102743.13 -30102742.95 -30102742.73 0.0144 0.0080
 Saturn -87130-08-09 04:32 J -30102589.56 -30102589.31 -30102589.07 0.0287 0.0021
 Uranus -87129-03-12 02:23 J -30102373.62 -30102373.40 -30102373.17 0.0144 0.0067
 Saturn -87129-08-23 02:37 J -30102209.57 -30102209.39 -30102209.19 0.0287 0.0183
 Uranus -87128-03-17 01:54 J -30102003.64 -30102003.42 -30102003.18 0.0145 0.0046
 Uranus -87127-03-21 19:11 J -30101633.94 -30101633.70 -30101633.45 0.0146 0.0045
 Uranus -87126-03-26 19:39 J -30101263.91 -30101263.68 -30101263.43 0.0146 0.0016

Uranus	-87125-03-30 17:30 J	-30100894.02	-30100893.77	-30100893.51	0.0146	0.0009
Uranus	-87124-04-04 17:59 J	-30100523.99	-30100523.75	-30100523.50	0.0147	0.0010
Uranus	-87123-04-09 20:37 J	-30100153.89	-30100153.64	-30100153.38	0.0147	0.0032
Uranus	-87122-04-14 20:37 J	-30099783.87	-30099783.64	-30099783.39	0.0147	0.0035
Uranus	-87121-04-19 04:18 J	-30099413.54	-30099413.32	-30099413.07	0.0148	0.0065
Uranus	-87120-04-24 04:03 J	-30099043.54	-30099043.33	-30099043.11	0.0148	0.0071
Uranus	-87119-04-29 15:49 J	-30098673.03	-30098672.84	-30098672.62	0.0148	0.0088
Uranus	-87118-05-04 16:03 J	-30098303.00	-30098302.83	-30098302.67	0.0148	0.0111
Saturn	-87117-01-14 18:13 J	-30098047.83	-30098047.74	-30098047.62	0.0275	0.0244
Uranus	-87117-05-09 06:13 J	-30097932.39	-30097932.24	-30097932.06	0.0148	0.0111
Saturn	-87116-01-25 11:44 J	-30097671.23	-30097671.01	-30097670.78	0.0273	0.0106
Uranus	-87116-05-14 07:11 J	-30097562.27	-30097562.20	-30097562.08	0.0148	0.0138
Saturn	-87115-02-05 21:35 J	-30097294.84	-30097294.60	-30097294.36	0.0273	0.0025
Uranus	-87115-05-19 22:32 J	-30097191.62	-30097191.56	-30097191.48	0.0148	0.0142
Saturn	-87114-02-17 11:59 J	-30096918.18	-30096918.00	-30096917.79	0.0272	0.0144
Saturn	-87113-02-29 08:08 J	-30096541.24	-30096541.16	-30096541.08	0.0272	0.0253
Mars	-87106-06-17 17:15 J	-30093875.87	-30093875.78	-30093875.68	0.1665	0.1430
Neptune	-87103-03-17 12:56 J	-30092872.09	-30092871.96	-30092871.82	0.0089	0.0073
Neptune	-87102-03-20 02:37 J	-30092504.62	-30092504.39	-30092504.15	0.0089	0.0038
Saturn	-87102-07-19 22:47 J	-30092382.73	-30092382.55	-30092382.36	0.0286	0.0200
Neptune	-87101-03-21 10:18 J	-30092137.29	-30092137.07	-30092136.82	0.0089	0.0021
Saturn	-87101-08-02 14:23 J	-30092003.15	-30092002.90	-30092002.63	0.0287	0.0043
Neptune	-87100-03-23 20:08 J	-30091769.92	-30091769.66	-30091769.40	0.0089	0.0014
Saturn	-87100-08-17 06:13 J	-30091623.47	-30091623.24	-30091622.99	0.0288	0.0119
Neptune	-87099-03-26 09:20 J	-30091402.33	-30091402.11	-30091401.87	0.0089	0.0032
Saturn	-87099-08-31 23:15 J	-30091243.60	-30091243.53	-30091243.45	0.0288	0.0275
Neptune	-87098-03-28 14:23 J	-30091035.06	-30091034.90	-30091034.72	0.0089	0.0067
Neptune	-87097-03-30 07:11 J	-30090667.26	-30090667.20	-30090667.11	0.0089	0.0084
Uranus	-87097-08-17 02:23 J	-30090527.43	-30090527.40	-30090527.30	0.0138	0.0135
Uranus	-87096-08-21 22:03 J	-30090157.64	-30090157.58	-30090157.49	0.0138	0.0131

Uranus	-87095-08-26 21:20 J	-30089787.72	-30089787.61	-30089787.48	0.0137	0.0122
Uranus	-87094-08-31 11:59 J	-30089418.15	-30089418.00	-30089417.82	0.0137	0.0103
Uranus	-87093-09-04 10:32 J	-30089048.22	-30089048.06	-30089047.87	0.0136	0.0103
Uranus	-87092-09-08 21:20 J	-30088678.81	-30088678.61	-30088678.39	0.0135	0.0077
Uranus	-87091-09-13 18:42 J	-30088308.93	-30088308.72	-30088308.49	0.0135	0.0075
Uranus	-87090-09-18 02:08 J	-30087939.63	-30087939.41	-30087939.17	0.0134	0.0059
Uranus	-87089-09-21 22:03 J	-30087569.82	-30087569.58	-30087569.32	0.0134	0.0044
Uranus	-87088-09-26 02:51 J	-30087200.62	-30087200.38	-30087200.13	0.0134	0.0041
Saturn	-87087-01-20 16:18 J	-30087083.99	-30087083.82	-30087083.62	0.0273	0.0166
Uranus	-87087-09-30 20:51 J	-30086830.89	-30086830.63	-30086830.37	0.0133	0.0015
Saturn	-87086-02-01 12:27 J	-30086707.21	-30086706.98	-30086706.75	0.0272	0.0030
Uranus	-87086-10-04 23:15 J	-30086461.78	-30086461.53	-30086461.27	0.0133	0.0017
Saturn	-87085-02-13 03:20 J	-30086330.59	-30086330.36	-30086330.14	0.0272	0.0093
Uranus	-87085-10-08 15:20 J	-30086092.12	-30086091.86	-30086091.60	0.0132	0.0007
Saturn	-87084-02-23 11:59 J	-30085954.15	-30085954.00	-30085953.82	0.0271	0.0202
Uranus	-87084-10-12 15:49 J	-30085723.10	-30085722.84	-30085722.59	0.0132	0.0011
Uranus	-87083-10-17 05:30 J	-30085353.51	-30085353.27	-30085353.01	0.0132	0.0024
Uranus	-87082-10-21 04:18 J	-30084984.55	-30084984.32	-30084984.06	0.0132	0.0039
Uranus	-87081-10-24 17:01 J	-30084615.03	-30084614.79	-30084614.55	0.0131	0.0041
Uranus	-87080-10-28 14:23 J	-30084246.11	-30084245.90	-30084245.67	0.0131	0.0065
Jupiter	-87079-09-27 17:15 J	-30083911.99	-30083911.78	-30083911.56	0.0518	0.0264
Uranus	-87079-11-02 01:25 J	-30083876.65	-30083876.44	-30083876.20	0.0131	0.0063
Uranus	-87078-11-05 22:18 J	-30083507.76	-30083507.57	-30083507.37	0.0131	0.0084
Uranus	-87077-11-09 08:37 J	-30083138.32	-30083138.14	-30083137.93	0.0131	0.0084
Uranus	-87076-11-13 04:03 J	-30082769.48	-30082769.33	-30082769.15	0.0131	0.0098
Uranus	-87075-11-17 13:11 J	-30082400.07	-30082399.95	-30082399.79	0.0131	0.0109
Mars	-87074-06-27 22:18 J	-30082177.67	-30082177.57	-30082177.47	0.1691	0.1452
Uranus	-87074-11-21 07:54 J	-30082031.28	-30082031.17	-30082031.02	0.0131	0.0111
Jupiter	-87073-03-20 23:44 J	-30081910.69	-30081910.51	-30081910.33	0.0511	0.0315
Saturn	-87073-07-12 08:37 J	-30081797.22	-30081797.14	-30081797.04	0.0285	0.0266

Uranus	-87073-11-24 16:32 J	-30081661.84	-30081661.81	-30081661.75	0.0131	0.0129
Saturn	-87072-07-27 03:06 J	-30081417.59	-30081417.37	-30081417.14	0.0286	0.0115
Uranus	-87072-11-28 10:32 J	-30081293.13	-30081293.06	-30081292.96	0.0131	0.0123
Saturn	-87071-08-11 00:56 J	-30081037.70	-30081037.46	-30081037.21	0.0287	0.0045
Saturn	-87070-08-25 21:35 J	-30080657.77	-30080657.60	-30080657.42	0.0287	0.0204
Jupiter	-87067-10-02 16:03 J	-30079524.07	-30079523.83	-30079523.60	0.0520	0.0022
Jupiter	-87061-03-25 13:39 J	-30077523.15	-30077522.93	-30077522.70	0.0508	0.0064
Saturn	-87058-01-16 01:39 J	-30076496.57	-30076496.43	-30076496.29	0.0274	0.0222
Saturn	-87057-01-27 13:54 J	-30076120.15	-30076119.92	-30076119.68	0.0273	0.0084
Saturn	-87056-02-07 03:35 J	-30075743.58	-30075743.35	-30075743.12	0.0273	0.0045
Saturn	-87055-02-18 23:01 J	-30075366.73	-30075366.54	-30075366.35	0.0272	0.0157
Jupiter	-87055-10-07 23:59 J	-30075135.65	-30075135.50	-30075135.33	0.0522	0.0376
Saturn	-87054-03-02 15:49 J	-30074989.88	-30074989.84	-30074989.79	0.0272	0.0266
Uranus	-87053-02-07 01:39 J	-30074648.45	-30074648.43	-30074648.38	0.0139	0.0138
Mars	-87053-12-27 05:44 J	-30074324.44	-30074324.26	-30074324.08	0.1857	0.0430
Uranus	-87052-02-10 18:27 J	-30074278.78	-30074278.73	-30074278.66	0.0140	0.0135
Uranus	-87051-02-14 22:18 J	-30073909.65	-30073909.57	-30073909.46	0.0141	0.0129
Uranus	-87050-02-19 17:15 J	-30073539.91	-30073539.78	-30073539.61	0.0141	0.0113
Uranus	-87049-02-23 23:59 J	-30073170.63	-30073170.50	-30073170.34	0.0142	0.0115
Jupiter	-87049-03-29 19:39 J	-30073135.88	-30073135.68	-30073135.46	0.0506	0.0238
Uranus	-87048-02-27 21:06 J	-30072800.80	-30072800.62	-30072800.42	0.0143	0.0090
Uranus	-87047-03-04 06:42 J	-30072431.41	-30072431.22	-30072431.02	0.0143	0.0090
Uranus	-87046-03-09 05:30 J	-30072061.47	-30072061.27	-30072061.05	0.0144	0.0070
Uranus	-87045-03-12 17:44 J	-30071691.98	-30071691.76	-30071691.51	0.0144	0.0057
Uranus	-87044-03-17 18:13 J	-30071321.96	-30071321.74	-30071321.51	0.0145	0.0051
Uranus	-87043-03-22 10:18 J	-30070952.32	-30070952.07	-30070951.81	0.0146	0.0024
Saturn	-87043-07-21 10:03 J	-30070831.27	-30070831.08	-30070830.86	0.0286	0.0178
Uranus	-87042-03-27 11:30 J	-30070582.26	-30070582.02	-30070581.78	0.0146	0.0022
Saturn	-87042-08-05 01:25 J	-30070451.70	-30070451.44	-30070451.18	0.0287	0.0020
Uranus	-87041-03-31 08:08 J	-30070212.42	-30070212.16	-30070211.90	0.0146	0.0004

Saturn -87041-08-18 20:08 J -30070071.87 -30070071.66 -30070071.43 0.0288 0.0142
 Uranus -87040-04-05 09:35 J -30069842.34 -30069842.10 -30069841.86 0.0147 0.0017
 Uranus -87039-04-10 11:15 J -30069472.28 -30069472.03 -30069471.77 0.0147 0.0026
 Uranus -87038-04-15 12:27 J -30069102.20 -30069101.98 -30069101.74 0.0147 0.0055
 Uranus -87037-04-19 19:39 J -30068731.91 -30068731.68 -30068731.43 0.0148 0.0056
 Uranus -87036-04-24 20:23 J -30068361.85 -30068361.65 -30068361.44 0.0148 0.0081
 Uranus -87035-04-30 07:39 J -30067991.36 -30067991.18 -30067990.96 0.0148 0.0096
 Uranus -87034-05-05 07:54 J -30067621.34 -30067621.17 -30067620.98 0.0148 0.0102
 Uranus -87033-05-09 22:03 J -30067250.69 -30067250.58 -30067250.44 0.0148 0.0129
 Uranus -87032-05-14 22:32 J -30066880.67 -30066880.56 -30066880.41 0.0148 0.0127
 Uranus -87031-05-20 13:39 J -30066509.95 -30066509.93 -30066509.88 0.0148 0.0146
 Saturn -87028-01-22 04:32 J -30065532.49 -30065532.31 -30065532.10 0.0273 0.0144
 Saturn -87027-02-02 21:49 J -30065155.83 -30065155.59 -30065155.35 0.0272 0.0009
 Mars -87027-06-20 03:49 J -30065018.50 -30065018.34 -30065018.18 0.1670 0.1059
 Saturn -87026-02-14 06:27 J -30064779.44 -30064779.23 -30064778.99 0.0271 0.0109
 Saturn -87025-02-25 18:27 J -30064402.85 -30064402.73 -30064402.57 0.0271 0.0218
 Neptune -87022-09-21 04:03 J -30063099.37 -30063099.33 -30063099.23 0.0088 0.0086
 Neptune -87021-09-23 00:42 J -30062731.64 -30062731.47 -30062731.30 0.0088 0.0067
 Neptune -87020-09-25 06:56 J -30062364.45 -30062364.21 -30062363.96 0.0088 0.0031
 Neptune -87019-09-28 03:06 J -30061996.62 -30061996.37 -30061996.10 0.0088 0.0013
 Neptune -87018-09-30 10:03 J -30061629.32 -30061629.08 -30061628.82 0.0088 0.0022
 Neptune -87017-10-02 03:35 J -30061261.57 -30061261.35 -30061261.09 0.0088 0.0041
 Neptune -87016-10-04 13:54 J -30060894.02 -30060893.92 -30060893.75 0.0088 0.0075
 Saturn -87014-07-15 03:35 J -30060245.46 -30060245.35 -30060245.22 0.0285 0.0245
 Uranus -87014-08-13 19:11 J -30060215.74 -30060215.70 -30060215.65 0.0139 0.0136
 Saturn -87013-07-28 22:32 J -30059865.80 -30059865.56 -30059865.33 0.0286 0.0090
 Uranus -87013-08-17 17:15 J -30059845.80 -30059845.78 -30059845.75 0.0138 0.0138
 Saturn -87012-08-12 17:59 J -30059486.00 -30059485.75 -30059485.50 0.0287 0.0070
 Uranus -87012-08-22 12:56 J -30059476.06 -30059475.96 -30059475.83 0.0138 0.0122
 Saturn -87011-08-27 10:47 J -30059106.21 -30059106.05 -30059105.88 0.0288 0.0225

Uranus	-87011-08-27 10:47 J	-30059106.19	-30059106.05	-30059105.86	0.0137	0.0111	*
Uranus	-87010-09-01 02:51 J	-30058736.54	-30058736.38	-30058736.23	0.0136	0.0107	
Pluto	-87009-06-22 04:18 J	-30058441.54	-30058441.32	-30058441.06	0.0067	0.0023	
Uranus	-87009-09-05 00:27 J	-30058366.68	-30058366.48	-30058366.26	0.0136	0.0082	
Uranus	-87008-09-09 12:13 J	-30057997.18	-30057996.99	-30057996.78	0.0135	0.0083	
Uranus	-87007-09-14 08:51 J	-30057627.35	-30057627.13	-30057626.88	0.0135	0.0061	
Uranus	-87006-09-18 17:15 J	-30057258.00	-30057257.78	-30057257.53	0.0134	0.0054	
Uranus	-87005-09-22 12:56 J	-30056888.21	-30056887.96	-30056887.71	0.0134	0.0044	
Uranus	-87004-09-26 17:59 J	-30056519.00	-30056518.75	-30056518.50	0.0134	0.0024	
Uranus	-87003-10-01 11:01 J	-30056149.29	-30056149.04	-30056148.77	0.0133	0.0024	
Uranus	-87002-10-05 13:39 J	-30055780.18	-30055779.93	-30055779.67	0.0133	0.0003	
Uranus	-87001-10-09 05:30 J	-30055410.53	-30055410.27	-30055410.01	0.0132	0.0002	

87TH MILLENNIUM BCE

This is a list of transits of Moon in the 87th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-87000-10-13 05:59 J	-30055041.50	-30055041.25	-30055040.99	0.0132	0.0021		
Saturn	-86999-01-17 04:18 J	-30054945.48	-30054945.32	-30054945.15	0.0274	0.0201		
Uranus	-86999-10-17 20:08 J	-30054671.91	-30054671.66	-30054671.41	0.0132	0.0029		
Saturn	-86998-01-28 18:27 J	-30054568.96	-30054568.73	-30054568.50	0.0273	0.0064		
Uranus	-86998-10-21 19:11 J	-30054302.94	-30054302.70	-30054302.45	0.0132	0.0037		
Saturn	-86997-02-09 12:56 J	-30054192.18	-30054191.96	-30054191.73	0.0272	0.0062		
Uranus	-86997-10-25 07:54 J	-30053933.39	-30053933.17	-30053932.93	0.0131	0.0057		

Saturn	-86996-02-20 05:59 J	-30053815.43	-30053815.25	-30053815.06	0.0272	0.0172
Jupiter	-86996-09-26 16:18 J	-30053597.00	-30053596.82	-30053596.64	0.0517	0.0310
Uranus	-86996-10-29 05:30 J	-30053564.49	-30053564.27	-30053564.03	0.0131	0.0055
Uranus	-86995-11-02 16:32 J	-30053194.99	-30053194.81	-30053194.59	0.0131	0.0079
Uranus	-86994-11-06 13:25 J	-30052826.14	-30052825.94	-30052825.73	0.0131	0.0075
Uranus	-86993-11-09 23:15 J	-30052456.69	-30052456.53	-30052456.34	0.0131	0.0094
Uranus	-86992-11-13 18:27 J	-30052087.87	-30052087.73	-30052087.54	0.0131	0.0098
Uranus	-86991-11-18 03:49 J	-30051718.48	-30051718.34	-30051718.18	0.0131	0.0106
Jupiter	-86990-03-21 05:59 J	-30051595.40	-30051595.25	-30051595.09	0.0511	0.0370
Uranus	-86990-11-21 22:18 J	-30051349.65	-30051349.57	-30051349.45	0.0131	0.0120
Uranus	-86989-11-25 06:42 J	-30050980.31	-30050980.22	-30050980.09	0.0131	0.0118
Uranus	-86987-12-03 09:06 J	-30050242.15	-30050242.12	-30050242.05	0.0132	0.0129
Saturn	-86984-07-22 19:25 J	-30049279.90	-30049279.69	-30049279.47	0.0286	0.0157
Jupiter	-86984-10-01 19:11 J	-30049208.94	-30049208.70	-30049208.46	0.0519	0.0034
Saturn	-86983-08-06 14:23 J	-30048900.15	-30048899.90	-30048899.65	0.0287	0.0004
Saturn	-86982-08-21 12:56 J	-30048520.15	-30048519.96	-30048519.75	0.0288	0.0163
Jupiter	-86978-03-25 13:39 J	-30047208.17	-30047207.93	-30047207.70	0.0510	0.0102
Mars	-86974-12-31 06:56 J	-30045466.38	-30045466.21	-30045466.04	0.1850	0.1038
Jupiter	-86972-10-06 11:30 J	-30044821.21	-30044821.02	-30044820.83	0.0521	0.0313
Saturn	-86970-01-12 17:01 J	-30044357.85	-30044357.79	-30044357.72	0.0274	0.0262
Uranus	-86970-02-03 13:54 J	-30044335.95	-30044335.92	-30044335.89	0.0139	0.0137
Saturn	-86969-01-24 13:39 J	-30043981.14	-30043980.93	-30043980.72	0.0273	0.0122
Saturn	-86968-02-04 00:27 J	-30043604.72	-30043604.48	-30043604.23	0.0272	0.0008
Uranus	-86968-02-11 08:23 J	-30043597.23	-30043597.15	-30043597.04	0.0140	0.0128
Saturn	-86967-02-15 10:32 J	-30043228.26	-30043228.06	-30043227.84	0.0271	0.0126
Uranus	-86967-02-15 12:42 J	-30043228.09	-30043227.97	-30043227.83	0.0141	0.0119 *
Uranus	-86966-02-20 07:39 J	-30042858.30	-30042858.18	-30042858.03	0.0141	0.0118
Saturn	-86966-02-27 04:32 J	-30042851.41	-30042851.31	-30042851.18	0.0271	0.0232
Jupiter	-86966-03-30 02:51 J	-30042820.58	-30042820.38	-30042820.18	0.0507	0.0217
Uranus	-86965-02-24 13:54 J	-30042489.09	-30042488.92	-30042488.73	0.0142	0.0095

Uranus	-86964-02-28 10:47 J	-30042119.21	-30042119.05	-30042118.86	0.0143	0.0099
Uranus	-86963-03-04 19:25 J	-30041749.89	-30041749.69	-30041749.46	0.0143	0.0073
Uranus	-86962-03-09 18:42 J	-30041379.93	-30041379.72	-30041379.50	0.0144	0.0068
Uranus	-86961-03-13 06:13 J	-30041010.46	-30041010.24	-30041010.00	0.0144	0.0055
Uranus	-86960-03-18 07:25 J	-30040640.42	-30040640.19	-30040639.95	0.0145	0.0035
Uranus	-86959-03-22 22:47 J	-30040270.79	-30040270.55	-30040270.30	0.0145	0.0034
Uranus	-86958-03-28 01:11 J	-30039900.69	-30039900.45	-30039900.21	0.0146	0.0004
Uranus	-86957-03-31 20:51 J	-30039530.89	-30039530.63	-30039530.37	0.0146	0.0001
Uranus	-86956-04-05 23:30 J	-30039160.76	-30039160.52	-30039160.28	0.0147	0.0020
Uranus	-86955-04-11 00:13 J	-30038790.74	-30038790.49	-30038790.24	0.0147	0.0040
Saturn	-86955-07-16 19:39 J	-30038693.82	-30038693.68	-30038693.51	0.0285	0.0224
Uranus	-86954-04-16 02:23 J	-30038420.63	-30038420.40	-30038420.17	0.0147	0.0043
Saturn	-86954-07-31 11:44 J	-30038314.26	-30038314.01	-30038313.75	0.0287	0.0069
Uranus	-86953-04-20 07:54 J	-30038050.39	-30038050.17	-30038049.93	0.0148	0.0072
Saturn	-86953-08-14 04:18 J	-30037934.56	-30037934.32	-30037934.06	0.0287	0.0091
Uranus	-86952-04-25 09:20 J	-30037680.31	-30037680.11	-30037679.90	0.0148	0.0078
Saturn	-86952-08-28 20:23 J	-30037554.77	-30037554.65	-30037554.50	0.0288	0.0243
Uranus	-86951-04-30 19:54 J	-30037309.87	-30037309.67	-30037309.47	0.0148	0.0094
Uranus	-86950-05-05 20:23 J	-30036939.80	-30036939.65	-30036939.49	0.0148	0.0116
Uranus	-86949-05-10 10:03 J	-30036569.22	-30036569.08	-30036568.90	0.0148	0.0115
Uranus	-86948-05-15 11:15 J	-30036199.10	-30036199.03	-30036198.95	0.0148	0.0140
Mars	-86948-06-22 23:30 J	-30036160.73	-30036160.52	-30036160.31	0.1675	0.0253
Uranus	-86947-05-21 02:37 J	-30035828.44	-30035828.39	-30035828.32	0.0148	0.0143
Saturn	-86940-01-18 08:08 J	-30033394.33	-30033394.16	-30033393.98	0.0274	0.0182
Saturn	-86939-01-30 03:35 J	-30033017.57	-30033017.35	-30033017.12	0.0273	0.0047
Neptune	-86939-03-16 23:01 J	-30032971.62	-30032971.54	-30032971.44	0.0089	0.0083
Saturn	-86938-02-10 21:06 J	-30032640.84	-30032640.62	-30032640.39	0.0272	0.0078
Neptune	-86938-03-19 07:54 J	-30032604.35	-30032604.17	-30032603.97	0.0089	0.0055
Saturn	-86937-02-22 07:25 J	-30032264.36	-30032264.19	-30032264.00	0.0272	0.0186
Neptune	-86937-03-20 15:35 J	-30032237.08	-30032236.85	-30032236.60	0.0089	0.0032

Neptune -86936-03-23 05:44 J -30031869.51 -30031869.26 -30031869.02 0.0089 0.0004
 Neptune -86935-03-25 09:35 J -30031502.34 -30031502.10 -30031501.84 0.0089 0.0020
 Neptune -86934-03-28 02:23 J -30031134.59 -30031134.40 -30031134.17 0.0089 0.0049
 Neptune -86933-03-29 06:13 J -30030767.38 -30030767.24 -30030767.10 0.0089 0.0073
 Uranus -86929-08-18 04:32 J -30029164.41 -30029164.31 -30029164.16 0.0138 0.0123
 Uranus -86928-08-23 02:23 J -30028794.51 -30028794.40 -30028794.26 0.0138 0.0120
 Uranus -86927-08-27 23:30 J -30028424.66 -30028424.52 -30028424.34 0.0137 0.0109
 Mars -86927-12-21 13:11 J -30028309.02 -30028308.95 -30028308.87 0.1878 0.1749
 Uranus -86926-09-01 16:32 J -30028054.98 -30028054.81 -30028054.61 0.0137 0.0091
 Saturn -86925-07-24 06:56 J -30027728.42 -30027728.21 -30027727.99 0.0286 0.0139
 Uranus -86925-09-05 13:39 J -30027685.13 -30027684.93 -30027684.72 0.0136 0.0090
 Saturn -86924-08-08 05:15 J -30027348.53 -30027348.28 -30027348.04 0.0287 0.0022
 Uranus -86924-09-10 01:39 J -30027315.63 -30027315.43 -30027315.19 0.0135 0.0066
 Pluto -86924-12-26 08:23 J -30027208.30 -30027208.15 -30027207.96 0.0078 0.0057
 Saturn -86923-08-23 04:03 J -30026968.51 -30026968.33 -30026968.13 0.0288 0.0182
 Uranus -86923-09-14 21:49 J -30026945.82 -30026945.59 -30026945.35 0.0135 0.0063
 Uranus -86922-09-19 06:27 J -30026576.46 -30026576.23 -30026575.98 0.0134 0.0047
 Uranus -86921-09-23 00:56 J -30026206.70 -30026206.46 -30026206.19 0.0134 0.0034
 Uranus -86920-09-27 06:56 J -30025837.45 -30025837.21 -30025836.96 0.0134 0.0030
 Uranus -86919-10-01 23:59 J -30025467.76 -30025467.50 -30025467.23 0.0133 0.0005
 Uranus -86918-10-06 03:20 J -30025098.61 -30025098.36 -30025098.10 0.0133 0.0007
 Uranus -86917-10-09 18:56 J -30024728.97 -30024728.71 -30024728.45 0.0132 0.0016
 Uranus -86916-10-13 19:54 J -30024359.92 -30024359.67 -30024359.42 0.0132 0.0019
 Uranus -86915-10-18 09:49 J -30023990.34 -30023990.09 -30023989.84 0.0132 0.0032
 Uranus -86914-10-22 08:51 J -30023621.35 -30023621.13 -30023620.88 0.0132 0.0047
 Jupiter -86913-09-25 19:25 J -30023281.85 -30023281.69 -30023281.51 0.0516 0.0364
 Uranus -86913-10-25 21:06 J -30023251.84 -30023251.62 -30023251.36 0.0131 0.0050
 Uranus -86912-10-29 18:56 J -30022882.90 -30022882.71 -30022882.48 0.0131 0.0072
 Saturn -86911-01-14 02:23 J -30022806.50 -30022806.40 -30022806.28 0.0274 0.0243
 Uranus -86911-11-03 06:13 J -30022513.44 -30022513.24 -30022513.00 0.0131 0.0068

Saturn	-86910-01-25 16:18 J	-30022430.04	-30022429.82	-30022429.59	0.0273	0.0104
Uranus	-86910-11-07 03:20 J	-30022144.54	-30022144.36	-30022144.17	0.0131	0.0089
Saturn	-86909-02-06 02:23 J	-30022053.64	-30022053.40	-30022053.16	0.0272	0.0024
Uranus	-86909-11-10 13:39 J	-30021775.12	-30021774.93	-30021774.74	0.0131	0.0088
Saturn	-86908-02-16 18:13 J	-30021676.93	-30021676.74	-30021676.54	0.0271	0.0139
Uranus	-86908-11-14 09:06 J	-30021406.27	-30021406.12	-30021405.96	0.0131	0.0102
Saturn	-86907-02-28 12:13 J	-30021300.08	-30021299.99	-30021299.88	0.0271	0.0243
Jupiter	-86907-03-20 08:08 J	-30021280.30	-30021280.16	-30021280.01	0.0513	0.0402
Uranus	-86907-11-18 17:44 J	-30021036.87	-30021036.76	-30021036.61	0.0131	0.0111
Uranus	-86906-11-22 12:56 J	-30020668.08	-30020667.96	-30020667.83	0.0131	0.0113
Uranus	-86905-11-25 20:23 J	-30020298.65	-30020298.65	-30020298.59	0.0131	0.0131
Uranus	-86904-11-29 14:51 J	-30019929.94	-30019929.88	-30019929.77	0.0131	0.0124
Jupiter	-86901-09-30 11:44 J	-30018894.25	-30018894.01	-30018893.77	0.0518	0.0081
Saturn	-86896-07-18 04:18 J	-30017142.50	-30017142.32	-30017142.14	0.0286	0.0204
Jupiter	-86895-03-24 22:32 J	-30016892.78	-30016892.56	-30016892.35	0.0510	0.0126
Saturn	-86895-08-01 18:13 J	-30016763.00	-30016762.74	-30016762.48	0.0287	0.0051
Saturn	-86894-08-16 11:59 J	-30016383.23	-30016383.00	-30016382.76	0.0288	0.0110
Saturn	-86893-08-30 07:54 J	-30016003.26	-30016003.17	-30016003.07	0.0288	0.0263
Jupiter	-86889-10-05 21:06 J	-30014505.81	-30014505.62	-30014505.42	0.0521	0.0283
Uranus	-86887-01-30 13:11 J	-30014023.97	-30014023.95	-30014023.93	0.0138	0.0137
Uranus	-86885-02-08 05:30 J	-30013285.36	-30013285.27	-30013285.16	0.0139	0.0127
Uranus	-86884-02-11 22:03 J	-30012915.69	-30012915.58	-30012915.46	0.0140	0.0124
Uranus	-86883-02-16 01:54 J	-30012546.54	-30012546.42	-30012546.27	0.0141	0.0118
Jupiter	-86883-03-29 11:30 J	-30012505.24	-30012505.02	-30012504.80	0.0508	0.0190
Uranus	-86882-02-20 20:37 J	-30012176.80	-30012176.64	-30012176.45	0.0141	0.0101
Saturn	-86881-01-20 15:20 J	-30011843.04	-30011842.86	-30011842.68	0.0273	0.0164
Uranus	-86881-02-25 02:37 J	-30011807.54	-30011807.39	-30011807.20	0.0142	0.0104
Saturn	-86880-01-31 11:01 J	-30011466.27	-30011466.04	-30011465.81	0.0272	0.0030
Uranus	-86880-02-28 23:59 J	-30011437.69	-30011437.50	-30011437.28	0.0143	0.0078
Saturn	-86879-02-11 22:18 J	-30011089.80	-30011089.57	-30011089.34	0.0272	0.0090

Uranus	-86879-03-05 08:37 J	-30011068.34	-30011068.14	-30011067.92	0.0143	0.0078
Saturn	-86878-02-23 07:11 J	-30010713.35	-30010713.20	-30010713.02	0.0272	0.0198
Uranus	-86878-03-10 08:23 J	-30010698.37	-30010698.15	-30010697.93	0.0144	0.0058
Uranus	-86877-03-13 19:11 J	-30010328.93	-30010328.70	-30010328.45	0.0144	0.0046
Uranus	-86876-03-18 20:37 J	-30009958.86	-30009958.64	-30009958.40	0.0145	0.0041
Uranus	-86875-03-23 11:15 J	-30009589.28	-30009589.03	-30009588.78	0.0145	0.0013
Uranus	-86874-03-28 13:54 J	-30009219.16	-30009218.92	-30009218.67	0.0146	0.0012
Uranus	-86873-04-01 08:37 J	-30008849.40	-30008849.14	-30008848.88	0.0146	0.0014
Uranus	-86872-04-06 12:27 J	-30008479.22	-30008478.98	-30008478.74	0.0147	0.0026
Jupiter	-86871-04-02 15:35 J	-30008117.91	-30008117.85	-30008117.77	0.0505	0.0478
Uranus	-86871-04-11 11:59 J	-30008109.25	-30008109.00	-30008108.75	0.0147	0.0035
Uranus	-86870-04-16 15:20 J	-30007739.07	-30007738.86	-30007738.63	0.0147	0.0063
Uranus	-86869-04-20 20:23 J	-30007368.88	-30007368.65	-30007368.41	0.0147	0.0063
Mars	-86869-06-25 16:47 J	-30007302.99	-30007302.80	-30007302.62	0.1680	0.0634
Uranus	-86868-04-25 22:47 J	-30006998.73	-30006998.55	-30006998.34	0.0148	0.0089
Uranus	-86867-05-01 08:23 J	-30006628.32	-30006628.15	-30006627.94	0.0148	0.0101
Saturn	-86867-07-11 23:30 J	-30006556.58	-30006556.52	-30006556.43	0.0285	0.0271
Uranus	-86866-05-06 09:35 J	-30006258.25	-30006258.10	-30006257.91	0.0148	0.0107
Saturn	-86866-07-26 19:11 J	-30006176.91	-30006176.70	-30006176.47	0.0286	0.0123
Uranus	-86865-05-10 23:01 J	-30005887.64	-30005887.54	-30005887.41	0.0148	0.0132
Saturn	-86865-08-09 16:47 J	-30005797.05	-30005796.80	-30005796.55	0.0288	0.0039
Uranus	-86864-05-15 23:30 J	-30005517.62	-30005517.52	-30005517.38	0.0148	0.0129
Saturn	-86864-08-24 12:42 J	-30005417.14	-30005416.97	-30005416.77	0.0288	0.0199
Uranus	-86863-05-21 15:06 J	-30005146.87	-30005146.87	-30005146.86	0.0148	0.0148
Neptune	-86857-09-21 19:54 J	-30002831.78	-30002831.67	-30002831.51	0.0088	0.0076
Neptune	-86856-09-24 16:03 J	-30002464.03	-30002463.83	-30002463.59	0.0088	0.0052
Neptune	-86855-09-27 00:56 J	-30002096.70	-30002096.46	-30002096.21	0.0088	0.0022
Neptune	-86854-09-29 17:15 J	-30001729.05	-30001728.78	-30001728.50	0.0088	0.0001
Neptune	-86853-10-01 05:30 J	-30001361.50	-30001361.27	-30001361.03	0.0088	0.0032
Saturn	-86852-01-15 05:30 J	-30001255.40	-30001255.27	-30001255.12	0.0274	0.0222

Neptune -86852-10-03 15:49 J -30000994.02 -30000993.84 -30000993.60 0.0088 0.0055
 Saturn -86851-01-26 16:47 J -30000879.02 -30000878.80 -30000878.56 0.0272 0.0086
 Neptune -86851-10-06 09:06 J -30000626.18 -30000626.12 -30000626.04 0.0088 0.0085
 Saturn -86850-02-07 08:37 J -30000502.37 -30000502.14 -30000501.91 0.0271 0.0038
 Saturn -86849-02-19 01:54 J -30000125.61 -30000125.42 -30000125.22 0.0271 0.0151
 Saturn -86848-03-01 13:39 J -29999749.00 -29999748.93 -29999748.84 0.0271 0.0256
 Mars -86848-12-25 00:56 J -29999450.63 -29999450.46 -29999450.29 0.1871 0.0969
 Uranus -86846-08-14 21:35 J -29998852.69 -29998852.60 -29998852.47 0.0139 0.0125
 Uranus -86845-08-18 17:30 J -29998482.85 -29998482.77 -29998482.64 0.0138 0.0128
 Uranus -86844-08-23 16:18 J -29998112.96 -29998112.82 -29998112.66 0.0138 0.0110
 Uranus -86843-08-28 11:59 J -29997743.17 -29997743.00 -29997742.79 0.0137 0.0099
 Uranus -86842-09-02 06:13 J -29997373.41 -29997373.24 -29997373.04 0.0137 0.0095
 Uranus -86841-09-06 02:08 J -29997003.63 -29997003.41 -29997003.16 0.0136 0.0070
 Uranus -86840-09-10 16:03 J -29996634.03 -29996633.83 -29996633.61 0.0135 0.0072
 Uranus -86839-09-15 11:15 J -29996264.28 -29996264.03 -29996263.78 0.0135 0.0049
 Uranus -86838-09-19 21:06 J -29995894.85 -29995894.62 -29995894.37 0.0134 0.0044
 Saturn -86837-07-19 07:25 J -29995591.39 -29995591.19 -29995591.00 0.0286 0.0188
 Uranus -86837-09-23 15:06 J -29995525.13 -29995524.87 -29995524.61 0.0134 0.0033
 Saturn -86836-08-02 23:59 J -29995211.75 -29995211.50 -29995211.25 0.0287 0.0035
 Uranus -86836-09-27 21:20 J -29995155.86 -29995155.61 -29995155.36 0.0134 0.0014
 Saturn -86835-08-17 21:20 J -29994831.82 -29994831.61 -29994831.38 0.0288 0.0126
 Uranus -86835-10-02 13:25 J -29994786.20 -29994785.94 -29994785.67 0.0133 0.0014
 Saturn -86834-09-01 19:54 J -29994451.72 -29994451.67 -29994451.60 0.0288 0.0278
 Uranus -86834-10-06 17:15 J -29994417.03 -29994416.78 -29994416.53 0.0133 0.0012
 Uranus -86833-10-10 07:54 J -29994047.43 -29994047.17 -29994046.90 0.0132 0.0011
 Uranus -86832-10-14 09:35 J -29993678.35 -29993678.10 -29993677.85 0.0132 0.0029
 Uranus -86831-10-18 23:15 J -29993308.78 -29993308.53 -29993308.28 0.0132 0.0037
 Jupiter -86830-09-25 15:49 J -29992966.97 -29992966.84 -29992966.68 0.0516 0.0407
 Uranus -86830-10-22 23:15 J -29992939.77 -29992939.53 -29992939.29 0.0132 0.0045
 Uranus -86829-10-26 11:15 J -29992570.24 -29992570.03 -29992569.79 0.0131 0.0065

Uranus	-86828-10-30 09:35 J	-29992201.30	-29992201.10	-29992200.86	0.0131	0.0063
Uranus	-86827-11-03 20:51 J	-29991831.82	-29991831.63	-29991831.43	0.0131	0.0084
Uranus	-86826-11-07 17:44 J	-29991462.95	-29991462.76	-29991462.56	0.0131	0.0080
Uranus	-86825-11-11 02:51 J	-29991093.53	-29991093.38	-29991093.20	0.0131	0.0098
Jupiter	-86824-03-19 16:47 J	-29990964.91	-29990964.80	-29990964.69	0.0513	0.0437
Uranus	-86824-11-14 22:32 J	-29990724.70	-29990724.56	-29990724.39	0.0131	0.0102
Uranus	-86823-11-19 07:25 J	-29990355.32	-29990355.19	-29990355.04	0.0131	0.0109
Saturn	-86822-01-21 22:32 J	-29990291.75	-29990291.56	-29990291.35	0.0273	0.0145
Mars	-86822-06-19 01:11 J	-29990143.61	-29990143.45	-29990143.29	0.1660	0.0864
Uranus	-86822-11-23 02:23 J	-29989986.47	-29989986.40	-29989986.29	0.0131	0.0123
Saturn	-86821-02-02 11:59 J	-29989915.24	-29989915.00	-29989914.75	0.0272	0.0017
Uranus	-86821-11-26 10:32 J	-29989617.15	-29989617.06	-29989616.94	0.0131	0.0119
Saturn	-86820-02-12 20:23 J	-29989538.87	-29989538.65	-29989538.42	0.0272	0.0100
Saturn	-86819-02-24 11:01 J	-29989162.19	-29989162.04	-29989161.90	0.0271	0.0210
Uranus	-86819-12-04 13:11 J	-29988878.99	-29988878.95	-29988878.89	0.0131	0.0129
Jupiter	-86818-10-01 00:42 J	-29988578.70	-29988578.47	-29988578.24	0.0518	0.0107
Jupiter	-86812-03-24 06:56 J	-29986577.43	-29986577.21	-29986576.98	0.0510	0.0154
Saturn	-86808-07-13 08:08 J	-29985005.26	-29985005.16	-29985005.04	0.0285	0.0254
Saturn	-86807-07-28 01:25 J	-29984625.68	-29984625.44	-29984625.20	0.0287	0.0106
Saturn	-86806-08-11 19:54 J	-29984245.93	-29984245.67	-29984245.42	0.0288	0.0052
Jupiter	-86806-10-05 18:42 J	-29984190.93	-29984190.72	-29984190.50	0.0520	0.0245
Saturn	-86805-08-25 14:08 J	-29983866.08	-29983865.91	-29983865.72	0.0288	0.0209
Uranus	-86802-02-04 15:49 J	-29982972.92	-29982972.84	-29982972.72	0.0139	0.0127
Uranus	-86801-02-08 18:56 J	-29982603.78	-29982603.71	-29982603.62	0.0139	0.0131
Uranus	-86800-02-12 10:47 J	-29982234.17	-29982234.05	-29982233.90	0.0140	0.0117
Jupiter	-86800-03-28 11:01 J	-29982190.25	-29982190.04	-29982189.82	0.0509	0.0165
Uranus	-86799-02-16 15:06 J	-29981865.00	-29981864.87	-29981864.70	0.0141	0.0109
Uranus	-86798-02-21 09:49 J	-29981495.25	-29981495.09	-29981494.92	0.0141	0.0107
Uranus	-86797-02-25 15:49 J	-29981126.03	-29981125.84	-29981125.64	0.0142	0.0084
Uranus	-86796-03-01 12:42 J	-29980756.16	-29980755.97	-29980755.77	0.0142	0.0087

Uranus	-86795-03-05 20:51 J	-29980386.85	-29980386.63	-29980386.41	0.0143	0.0061
Uranus	-86794-03-10 19:54 J	-29980016.89	-29980016.67	-29980016.43	0.0144	0.0058
Saturn	-86793-01-17 04:18 J	-29979704.49	-29979704.32	-29979704.16	0.0273	0.0200
Uranus	-86793-03-14 06:42 J	-29979647.45	-29979647.22	-29979646.98	0.0144	0.0045
Saturn	-86792-01-27 20:23 J	-29979327.87	-29979327.65	-29979327.42	0.0272	0.0070
Uranus	-86792-03-19 08:37 J	-29979277.38	-29979277.14	-29979276.89	0.0145	0.0025
Saturn	-86791-02-08 15:06 J	-29978951.10	-29978950.87	-29978950.64	0.0271	0.0051
Uranus	-86791-03-23 22:32 J	-29978907.81	-29978907.56	-29978907.31	0.0145	0.0023
Saturn	-86790-02-20 03:06 J	-29978574.55	-29978574.37	-29978574.16	0.0271	0.0161
Uranus	-86790-03-29 02:23 J	-29978537.64	-29978537.40	-29978537.15	0.0146	0.0007
Saturn	-86789-03-02 11:15 J	-29978198.06	-29978198.03	-29978197.97	0.0271	0.0266
Uranus	-86789-04-01 20:08 J	-29978167.92	-29978167.66	-29978167.40	0.0146	0.0010
Jupiter	-86788-04-02 06:56 J	-29977802.31	-29977802.21	-29977802.11	0.0507	0.0453
Uranus	-86788-04-07 00:42 J	-29977797.70	-29977797.47	-29977797.23	0.0147	0.0029
Uranus	-86787-04-11 22:47 J	-29977427.79	-29977427.55	-29977427.30	0.0147	0.0048
Uranus	-86786-04-17 03:06 J	-29977057.59	-29977057.37	-29977057.14	0.0147	0.0051
Uranus	-86785-04-21 05:59 J	-29976687.46	-29976687.25	-29976687.02	0.0147	0.0080
Uranus	-86784-04-26 09:35 J	-29976317.30	-29976317.10	-29976316.89	0.0148	0.0084
Uranus	-86783-05-01 17:30 J	-29975946.95	-29975946.77	-29975946.57	0.0148	0.0100
Uranus	-86782-05-06 19:25 J	-29975576.81	-29975576.69	-29975576.52	0.0148	0.0120
Uranus	-86781-05-11 08:23 J	-29975206.30	-29975206.15	-29975205.98	0.0148	0.0117
Uranus	-86780-05-16 09:20 J	-29974836.15	-29974836.11	-29974836.02	0.0148	0.0143
Uranus	-86779-05-22 00:56 J	-29974465.50	-29974465.46	-29974465.39	0.0148	0.0144
Saturn	-86778-07-21 11:59 J	-29974040.19	-29974040.00	-29974039.79	0.0286	0.0171
Saturn	-86777-08-04 09:06 J	-29973660.36	-29973660.12	-29973659.88	0.0287	0.0018
Saturn	-86776-08-19 08:08 J	-29973280.37	-29973280.16	-29973279.94	0.0288	0.0139
Neptune	-86774-03-18 11:59 J	-29972704.11	-29972704.00	-29972703.84	0.0089	0.0075
Neptune	-86773-03-20 03:06 J	-29972336.58	-29972336.37	-29972336.14	0.0089	0.0041
Neptune	-86772-03-22 06:42 J	-29971969.46	-29971969.22	-29971968.96	0.0089	0.0023
Neptune	-86771-03-24 23:44 J	-29971601.76	-29971601.51	-29971601.26	0.0089	0.0012

Neptune -86770-03-27 03:06 J -29971234.59 -29971234.37 -29971234.12 0.0089 0.0030
 Neptune -86769-03-28 17:59 J -29970866.90 -29970866.75 -29970866.54 0.0089 0.0064
 Mars -86769-12-27 20:23 J -29970592.81 -29970592.65 -29970592.49 0.1865 0.0749
 Neptune -86768-03-31 01:11 J -29970499.54 -29970499.45 -29970499.34 0.0089 0.0081
 Saturn -86764-01-11 07:11 J -29969117.26 -29969117.20 -29969117.11 0.0274 0.0259
 Saturn -86763-01-23 00:27 J -29968740.68 -29968740.48 -29968740.25 0.0273 0.0127
 Pluto -86763-06-24 05:15 J -29968588.53 -29968588.28 -29968588.01 0.0067 0.0015
 Uranus -86763-08-10 04:03 J -29968541.41 -29968541.33 -29968541.21 0.0140 0.0130
 Saturn -86762-02-03 09:35 J -29968364.34 -29968364.10 -29968363.86 0.0272 0.0002
 Uranus -86762-08-15 08:51 J -29968171.17 -29968171.13 -29968171.04 0.0139 0.0134
 Saturn -86761-02-14 22:47 J -29967987.76 -29967987.55 -29967987.34 0.0271 0.0111
 Uranus -86761-08-19 04:03 J -29967801.47 -29967801.33 -29967801.15 0.0139 0.0111
 Saturn -86760-02-25 15:49 J -29967610.96 -29967610.84 -29967610.69 0.0271 0.0219
 Uranus -86760-08-24 04:47 J -29967431.45 -29967431.30 -29967431.14 0.0138 0.0109
 Uranus -86759-08-28 23:15 J -29967061.70 -29967061.53 -29967061.32 0.0137 0.0097
 Uranus -86758-09-02 19:11 J -29966691.90 -29966691.70 -29966691.49 0.0137 0.0079
 Uranus -86757-09-06 13:25 J -29966322.15 -29966321.94 -29966321.71 0.0136 0.0079
 Uranus -86756-09-11 04:03 J -29965952.55 -29965952.33 -29965952.09 0.0136 0.0054
 Uranus -86755-09-15 21:49 J -29965582.83 -29965582.59 -29965582.33 0.0135 0.0053
 Uranus -86754-09-20 08:37 J -29965213.37 -29965213.14 -29965212.88 0.0135 0.0037
 Uranus -86753-09-24 01:25 J -29964843.70 -29964843.44 -29964843.17 0.0134 0.0024
 Uranus -86752-09-28 09:20 J -29964474.36 -29964474.11 -29964473.86 0.0134 0.0019
 Uranus -86751-10-03 01:11 J -29964104.72 -29964104.45 -29964104.19 0.0133 0.0004
 Uranus -86750-10-07 06:13 J -29963735.49 -29963735.24 -29963734.99 0.0133 0.0002
 Saturn -86749-07-14 10:18 J -29963454.21 -29963454.07 -29963453.93 0.0285 0.0237
 Uranus -86749-10-10 20:23 J -29963365.90 -29963365.65 -29963365.38 0.0133 0.0026
 Saturn -86748-07-28 23:44 J -29963074.76 -29963074.51 -29963074.26 0.0287 0.0092
 Uranus -86748-10-14 23:01 J -29962996.78 -29962996.54 -29962996.29 0.0132 0.0027
 Saturn -86747-08-12 17:15 J -29962695.03 -29962694.78 -29962694.52 0.0288 0.0063
 Jupiter -86747-09-25 04:18 J -29962651.44 -29962651.32 -29962651.19 0.0515 0.0438

Uranus	-86747-10-19 11:44 J	-29962627.24	-29962627.01	-29962626.74	0.0132	0.0041
Saturn	-86746-08-27 14:08 J	-29962315.06	-29962314.91	-29962314.74	0.0288	0.0219
Uranus	-86746-10-23 12:42 J	-29962258.20	-29962257.97	-29962257.74	0.0132	0.0054
Uranus	-86745-10-26 23:59 J	-29961888.72	-29961888.50	-29961888.25	0.0131	0.0057
Uranus	-86744-10-30 22:47 J	-29961519.74	-29961519.55	-29961519.33	0.0131	0.0078
Mars	-86743-06-21 03:49 J	-29961286.51	-29961286.34	-29961286.17	0.1664	0.0580
Uranus	-86743-11-04 09:20 J	-29961150.31	-29961150.11	-29961149.88	0.0131	0.0073
Uranus	-86742-11-08 06:56 J	-29960781.37	-29960781.21	-29960781.03	0.0131	0.0094
Jupiter	-86741-03-18 23:44 J	-29960649.59	-29960649.51	-29960649.41	0.0514	0.0473
Uranus	-86741-11-11 16:18 J	-29960412.00	-29960411.82	-29960411.63	0.0131	0.0092
Uranus	-86740-11-15 12:42 J	-29960043.10	-29960042.97	-29960042.82	0.0131	0.0106
Uranus	-86739-11-19 20:37 J	-29959673.74	-29959673.64	-29959673.49	0.0131	0.0114
Uranus	-86738-11-23 16:32 J	-29959304.90	-29959304.81	-29959304.67	0.0131	0.0116
Uranus	-86737-11-26 23:59 J	-29958935.51	-29958935.50	-29958935.47	0.0131	0.0131
Uranus	-86736-11-30 19:39 J	-29958566.76	-29958566.68	-29958566.60	0.0131	0.0124
Jupiter	-86735-09-29 22:18 J	-29958263.80	-29958263.57	-29958263.33	0.0517	0.0139
Saturn	-86734-01-18 05:44 J	-29958153.43	-29958153.26	-29958153.08	0.0273	0.0181
Saturn	-86733-01-30 01:39 J	-29957776.65	-29957776.43	-29957776.20	0.0272	0.0053
Saturn	-86732-02-09 15:35 J	-29957400.08	-29957399.85	-29957399.60	0.0271	0.0065
Saturn	-86731-02-20 23:01 J	-29957023.72	-29957023.54	-29957023.34	0.0271	0.0169
Jupiter	-86729-03-23 07:54 J	-29956262.37	-29956262.17	-29956261.95	0.0512	0.0179
Jupiter	-86723-10-04 23:44 J	-29953875.72	-29953875.51	-29953875.30	0.0519	0.0212
Uranus	-86719-01-31 16:47 J	-29952660.86	-29952660.80	-29952660.69	0.0138	0.0128
Saturn	-86719-07-22 18:27 J	-29952488.92	-29952488.73	-29952488.51	0.0286	0.0157
Uranus	-86718-02-05 06:13 J	-29952291.29	-29952291.24	-29952291.17	0.0139	0.0134
Saturn	-86718-08-06 16:03 J	-29952109.08	-29952108.83	-29952108.58	0.0287	0.0004
Uranus	-86717-02-09 08:51 J	-29951922.24	-29951922.13	-29951921.98	0.0139	0.0117
Jupiter	-86717-03-28 05:15 J	-29951874.50	-29951874.28	-29951874.06	0.0509	0.0152
Saturn	-86717-08-20 12:42 J	-29951729.19	-29951728.97	-29951728.75	0.0288	0.0152
Uranus	-86716-02-12 23:59 J	-29951552.62	-29951552.50	-29951552.33	0.0140	0.0114

Uranus	-86715-02-17 04:47 J	-29951183.44	-29951183.30	-29951183.13	0.0140	0.0107
Uranus	-86714-02-21 22:18 J	-29950813.75	-29950813.57	-29950813.36	0.0141	0.0090
Uranus	-86713-02-26 05:01 J	-29950444.47	-29950444.29	-29950444.10	0.0142	0.0092
Uranus	-86712-03-02 01:11 J	-29950074.66	-29950074.45	-29950074.21	0.0142	0.0067
Uranus	-86711-03-06 09:49 J	-29949705.30	-29949705.09	-29949704.87	0.0143	0.0068
Uranus	-86710-03-11 09:06 J	-29949335.35	-29949335.12	-29949334.88	0.0144	0.0048
Uranus	-86709-03-14 19:39 J	-29948965.91	-29948965.68	-29948965.43	0.0144	0.0036
Uranus	-86708-03-19 21:35 J	-29948595.84	-29948595.60	-29948595.36	0.0145	0.0030
Uranus	-86707-03-24 11:01 J	-29948226.29	-29948226.04	-29948225.79	0.0145	0.0003
Uranus	-86706-03-29 14:51 J	-29947856.12	-29947855.88	-29947855.63	0.0146	0.0003
Saturn	-86705-01-13 09:06 J	-29947566.23	-29947566.12	-29947566.00	0.0274	0.0239
Jupiter	-86705-04-01 09:20 J	-29947487.23	-29947487.11	-29947486.98	0.0507	0.0426
Uranus	-86705-04-02 07:54 J	-29947486.42	-29947486.17	-29947485.92	0.0146	0.0024
Saturn	-86704-01-23 21:20 J	-29947189.84	-29947189.61	-29947189.39	0.0273	0.0108
Uranus	-86704-04-07 13:25 J	-29947116.18	-29947115.94	-29947115.70	0.0146	0.0034
Saturn	-86703-02-04 10:18 J	-29946813.31	-29946813.07	-29946812.84	0.0272	0.0014
Uranus	-86703-04-12 10:18 J	-29946746.31	-29946746.07	-29946745.81	0.0147	0.0044
Saturn	-86702-02-16 03:35 J	-29946436.55	-29946436.35	-29946436.14	0.0271	0.0120
Uranus	-86702-04-17 16:03 J	-29946376.04	-29946375.83	-29946375.61	0.0147	0.0069
Saturn	-86701-02-27 17:01 J	-29946059.92	-29946059.79	-29946059.66	0.0271	0.0227
Uranus	-86701-04-21 17:59 J	-29946005.97	-29946005.75	-29946005.51	0.0147	0.0069
Uranus	-86700-04-26 22:47 J	-29945635.73	-29945635.55	-29945635.36	0.0148	0.0095
Uranus	-86699-05-02 05:44 J	-29945265.44	-29945265.26	-29945265.07	0.0148	0.0104
Uranus	-86698-05-07 08:23 J	-29944895.30	-29944895.15	-29944894.97	0.0148	0.0111
Uranus	-86697-05-11 19:39 J	-29944524.77	-29944524.68	-29944524.55	0.0148	0.0134
Uranus	-86696-05-16 21:35 J	-29944154.71	-29944154.60	-29944154.48	0.0148	0.0130
Neptune	-86693-09-21 04:47 J	-29942931.33	-29942931.30	-29942931.22	0.0088	0.0086
Neptune	-86692-09-23 14:37 J	-29942564.03	-29942563.89	-29942563.71	0.0088	0.0069
Neptune	-86691-09-26 05:30 J	-29942196.51	-29942196.27	-29942196.00	0.0088	0.0033
Saturn	-86690-07-16 05:59 J	-29941903.40	-29941903.25	-29941903.08	0.0285	0.0224

Neptune -86690-09-28 20:23 J -29941828.89 -29941828.65 -29941828.39 0.0088 0.0015
 Mars -86690-12-31 08:37 J -29941735.27 -29941735.14 -29941735.01 0.1859 0.1271
 Saturn -86689-07-29 21:35 J -29941523.85 -29941523.60 -29941523.36 0.0287 0.0078
 Neptune -86689-09-30 06:13 J -29941461.49 -29941461.24 -29941460.96 0.0088 0.0020
 Saturn -86688-08-13 18:56 J -29941143.94 -29941143.71 -29941143.47 0.0288 0.0077
 Neptune -86688-10-03 00:27 J -29941093.69 -29941093.48 -29941093.23 0.0088 0.0038
 Saturn -86687-08-28 19:11 J -29940763.84 -29940763.70 -29940763.54 0.0289 0.0230
 Neptune -86687-10-05 06:42 J -29940726.34 -29940726.22 -29940726.04 0.0088 0.0072
 Uranus -86680-08-05 21:06 J -29938229.64 -29938229.62 -29938229.54 0.0140 0.0138
 Uranus -86679-08-10 15:35 J -29937859.89 -29937859.85 -29937859.76 0.0140 0.0136
 Uranus -86678-08-15 21:35 J -29937489.74 -29937489.60 -29937489.44 0.0139 0.0114
 Pluto -86678-12-27 22:47 J -29937355.60 -29937355.55 -29937355.44 0.0078 0.0074
 Uranus -86677-08-19 15:20 J -29937119.99 -29937119.86 -29937119.70 0.0139 0.0117
 Uranus -86676-08-24 16:32 J -29936749.97 -29936749.81 -29936749.62 0.0138 0.0098
 Saturn -86675-01-19 10:32 J -29936602.24 -29936602.06 -29936601.87 0.0273 0.0162
 Uranus -86675-08-29 10:18 J -29936380.26 -29936380.07 -29936379.85 0.0137 0.0088
 Saturn -86674-01-31 03:35 J -29936225.59 -29936225.35 -29936225.11 0.0272 0.0036
 Uranus -86674-09-03 07:11 J -29936010.38 -29936010.20 -29936009.98 0.0137 0.0083
 Saturn -86673-02-11 11:30 J -29935849.25 -29935849.02 -29935848.78 0.0271 0.0074
 Uranus -86673-09-07 00:42 J -29935640.70 -29935640.47 -29935640.22 0.0136 0.0059
 Saturn -86672-02-21 22:18 J -29935472.74 -29935472.57 -29935472.39 0.0271 0.0179
 Uranus -86672-09-11 17:15 J -29935271.00 -29935270.78 -29935270.55 0.0136 0.0061
 Uranus -86671-09-16 10:03 J -29934901.34 -29934901.08 -29934900.82 0.0135 0.0038
 Uranus -86670-09-20 22:18 J -29934531.81 -29934531.57 -29934531.32 0.0135 0.0034
 Uranus -86669-09-24 14:08 J -29934162.18 -29934161.91 -29934161.65 0.0134 0.0023
 Uranus -86668-09-28 22:32 J -29933792.81 -29933792.56 -29933792.30 0.0134 0.0005
 Uranus -86667-10-03 13:25 J -29933423.21 -29933422.94 -29933422.68 0.0133 0.0004
 Uranus -86666-10-07 18:56 J -29933053.95 -29933053.71 -29933053.45 0.0133 0.0021
 Uranus -86665-10-11 08:23 J -29932684.41 -29932684.15 -29932683.88 0.0133 0.0019
 Mars -86664-06-23 08:37 J -29932429.32 -29932429.14 -29932428.96 0.1668 0.0619

Jupiter -86664-09-24 02:08 J -29932336.49 -29932336.41 -29932336.31 0.0514 0.0472
 Uranus -86664-10-15 11:44 J -29932315.23 -29932315.01 -29932314.75 0.0132 0.0039
 Uranus -86663-10-20 00:27 J -29931945.72 -29931945.48 -29931945.22 0.0132 0.0045
 Uranus -86662-10-24 02:08 J -29931576.63 -29931576.41 -29931576.17 0.0132 0.0053
 Saturn -86661-07-09 07:11 J -29931317.22 -29931317.20 -29931317.15 0.0285 0.0282
 Uranus -86661-10-27 13:11 J -29931207.16 -29931206.95 -29931206.72 0.0132 0.0071
 Saturn -86660-07-23 23:01 J -29930937.75 -29930937.54 -29930937.31 0.0286 0.0139
 Uranus -86660-10-31 12:56 J -29930838.16 -29930837.96 -29930837.74 0.0131 0.0069
 Saturn -86659-08-07 16:32 J -29930558.07 -29930557.81 -29930557.55 0.0288 0.0012
 Uranus -86659-11-04 22:32 J -29930468.73 -29930468.56 -29930468.36 0.0131 0.0090
 Jupiter -86658-03-19 05:30 J -29930334.31 -29930334.27 -29930334.22 0.0515 0.0501
 Saturn -86658-08-22 10:03 J -29930178.29 -29930178.08 -29930177.86 0.0288 0.0163
 Uranus -86658-11-08 20:37 J -29930099.81 -29930099.64 -29930099.44 0.0131 0.0085
 Uranus -86657-11-12 05:01 J -29929730.44 -29929730.29 -29929730.12 0.0131 0.0102
 Uranus -86656-11-16 01:54 J -29929361.55 -29929361.42 -29929361.26 0.0131 0.0105
 Uranus -86655-11-20 09:35 J -29928992.21 -29928992.10 -29928991.95 0.0131 0.0113
 Uranus -86654-11-24 05:59 J -29928623.30 -29928623.25 -29928623.15 0.0131 0.0124
 Uranus -86653-11-27 13:25 J -29928254.03 -29928253.94 -29928253.83 0.0131 0.0120
 Jupiter -86652-09-29 06:27 J -29927948.44 -29927948.23 -29927948.01 0.0516 0.0165
 Uranus -86651-12-05 16:32 J -29927515.85 -29927515.81 -29927515.75 0.0131 0.0129
 Saturn -86646-01-14 05:30 J -29926015.41 -29926015.27 -29926015.12 0.0274 0.0219
 Jupiter -86646-03-24 02:37 J -29925946.61 -29925946.39 -29925946.18 0.0512 0.0188
 Saturn -86645-01-25 20:08 J -29925638.87 -29925638.66 -29925638.43 0.0272 0.0092
 Saturn -86644-02-05 14:23 J -29925262.13 -29925261.90 -29925261.67 0.0271 0.0025
 Saturn -86643-02-17 04:32 J -29924885.51 -29924885.31 -29924885.09 0.0271 0.0131
 Mars -86643-12-21 08:51 J -29924578.20 -29924578.13 -29924578.05 0.1887 0.1684
 Saturn -86642-02-28 11:59 J -29924509.11 -29924509.00 -29924508.87 0.0271 0.0237
 Jupiter -86640-10-04 09:49 J -29923560.31 -29923560.09 -29923559.85 0.0519 0.0198
 Uranus -86636-01-28 05:30 J -29922348.34 -29922348.27 -29922348.17 0.0137 0.0129
 Uranus -86635-02-01 07:54 J -29921979.18 -29921979.17 -29921979.13 0.0138 0.0137

Uranus -86634-02-05 20:08 J -29921609.78 -29921609.66 -29921609.51 0.0139 0.0116
 Jupiter -86634-03-28 07:11 J -29921559.42 -29921559.20 -29921558.97 0.0510 0.0127
 Uranus -86633-02-09 23:59 J -29921240.60 -29921240.50 -29921240.36 0.0139 0.0120
 Uranus -86632-02-13 14:37 J -29920871.04 -29920870.89 -29920870.71 0.0140 0.0106
 Uranus -86631-02-17 19:54 J -29920501.82 -29920501.67 -29920501.48 0.0140 0.0098
 Saturn -86631-07-17 03:20 J -29920352.51 -29920352.36 -29920352.18 0.0285 0.0212
 Uranus -86630-02-22 12:56 J -29920132.13 -29920131.96 -29920131.76 0.0141 0.0095
 Saturn -86630-07-31 23:30 J -29919972.76 -29919972.52 -29919972.28 0.0287 0.0063
 Uranus -86629-02-26 19:39 J -29919762.87 -29919762.68 -29919762.46 0.0142 0.0073
 Saturn -86629-08-14 23:30 J -29919592.75 -29919592.52 -29919592.28 0.0288 0.0089
 Uranus -86628-03-02 15:20 J -29919393.05 -29919392.86 -29919392.63 0.0142 0.0076
 Saturn -86628-08-29 23:15 J -29919212.67 -29919212.53 -29919212.39 0.0289 0.0239
 Jupiter -86628-10-09 05:59 J -29919172.29 -29919172.25 -29919172.20 0.0521 0.0508
 Uranus -86627-03-07 00:13 J -29919023.72 -29919023.49 -29919023.26 0.0143 0.0050
 Uranus -86626-03-11 22:47 J -29918653.78 -29918653.55 -29918653.31 0.0144 0.0047
 Uranus -86625-03-15 09:20 J -29918284.34 -29918284.11 -29918283.86 0.0144 0.0034
 Uranus -86624-03-20 11:30 J -29917914.27 -29917914.02 -29917913.77 0.0145 0.0014
 Uranus -86623-03-25 00:42 J -29917544.72 -29917544.47 -29917544.22 0.0145 0.0013
 Uranus -86622-03-30 05:15 J -29917174.53 -29917174.28 -29917174.03 0.0146 0.0017
 Jupiter -86622-04-01 21:35 J -29917171.73 -29917171.60 -29917171.45 0.0508 0.0393
 Uranus -86621-04-02 21:20 J -29916804.86 -29916804.61 -29916804.35 0.0146 0.0019
 Uranus -86620-04-08 03:06 J -29916434.60 -29916434.37 -29916434.13 0.0146 0.0038
 Uranus -86619-04-12 22:47 J -29916064.78 -29916064.55 -29916064.30 0.0147 0.0055
 Uranus -86618-04-18 05:15 J -29915694.51 -29915694.28 -29915694.06 0.0147 0.0059
 Saturn -86617-01-09 15:20 J -29915427.86 -29915427.86 -29915427.85 0.0275 0.0275
 Uranus -86617-04-22 05:15 J -29915324.48 -29915324.28 -29915324.06 0.0147 0.0086
 Saturn -86616-01-20 12:42 J -29915051.17 -29915050.97 -29915050.76 0.0273 0.0143
 Uranus -86616-04-27 10:47 J -29914954.23 -29914954.05 -29914953.84 0.0148 0.0089
 Saturn -86615-01-31 23:44 J -29914674.75 -29914674.51 -29914674.26 0.0272 0.0022
 Uranus -86615-05-02 16:03 J -29914584.00 -29914583.83 -29914583.63 0.0148 0.0105

Saturn -86614-02-12 10:03 J -29914298.31 -29914298.08 -29914297.86 0.0271 0.0087
 Uranus -86614-05-07 20:23 J -29914213.78 -29914213.65 -29914213.50 0.0148 0.0122
 Saturn -86613-02-24 02:37 J -29913921.55 -29913921.39 -29913921.23 0.0270 0.0191
 Uranus -86613-05-12 06:27 J -29913843.36 -29913843.23 -29913843.05 0.0148 0.0120
 Uranus -86612-05-17 09:06 J -29913473.15 -29913473.12 -29913473.05 0.0148 0.0145
 Uranus -86611-05-22 23:44 J -29913102.56 -29913102.51 -29913102.45 0.0147 0.0144
 Neptune -86610-03-18 00:42 J -29912803.51 -29912803.47 -29912803.38 0.0089 0.0086
 Neptune -86609-03-19 03:49 J -29912436.51 -29912436.34 -29912436.12 0.0089 0.0056
 Neptune -86608-03-21 20:51 J -29912068.86 -29912068.63 -29912068.39 0.0089 0.0034
 Neptune -86607-03-24 00:42 J -29911701.71 -29911701.47 -29911701.22 0.0089 0.0005
 Neptune -86606-03-26 15:06 J -29911334.12 -29911333.87 -29911333.61 0.0089 0.0017
 Neptune -86605-03-27 23:01 J -29910966.73 -29910966.54 -29910966.32 0.0089 0.0048
 Neptune -86604-03-30 08:37 J -29910599.27 -29910599.14 -29910598.95 0.0089 0.0070
 Saturn -86602-07-11 09:35 J -29909766.18 -29909766.10 -29909766.01 0.0285 0.0267
 Saturn -86601-07-24 21:49 J -29909386.82 -29909386.59 -29909386.35 0.0287 0.0125
 Saturn -86600-08-08 13:39 J -29909007.19 -29909006.93 -29909006.67 0.0288 0.0025
 Saturn -86599-08-23 09:06 J -29908627.31 -29908627.12 -29908626.91 0.0288 0.0176
 Uranus -86596-08-06 07:11 J -29907548.24 -29907548.20 -29907548.12 0.0140 0.0137
 Uranus -86595-08-11 01:25 J -29907178.55 -29907178.44 -29907178.28 0.0140 0.0119
 Uranus -86594-08-16 08:23 J -29906808.25 -29906808.15 -29906808.01 0.0139 0.0123
 Uranus -86593-08-20 01:39 J -29906438.60 -29906438.43 -29906438.23 0.0139 0.0099
 Uranus -86592-08-25 04:32 J -29906068.48 -29906068.31 -29906068.13 0.0138 0.0098
 Uranus -86591-08-29 20:51 J -29905698.83 -29905698.63 -29905698.40 0.0137 0.0084
 Uranus -86590-09-03 18:56 J -29905328.92 -29905328.71 -29905328.48 0.0137 0.0068
 Uranus -86589-09-07 10:47 J -29904959.28 -29904959.05 -29904958.80 0.0136 0.0067
 Uranus -86588-09-12 04:18 J -29904589.55 -29904589.32 -29904589.07 0.0136 0.0043
 Saturn -86587-01-15 04:32 J -29904464.46 -29904464.31 -29904464.14 0.0274 0.0202
 Uranus -86587-09-16 19:39 J -29904219.93 -29904219.68 -29904219.42 0.0135 0.0043
 Saturn -86586-01-27 01:11 J -29904087.67 -29904087.45 -29904087.23 0.0272 0.0077
 Uranus -86586-09-21 09:20 J -29903850.35 -29903850.11 -29903849.86 0.0135 0.0025

Saturn -86585-02-07 17:30 J -29903711.01 -29903710.77 -29903710.54 0.0271 0.0040
 Mars -86585-06-26 00:42 J -29903571.63 -29903571.47 -29903571.30 0.1673 0.1005
 Uranus -86585-09-24 23:59 J -29903480.76 -29903480.50 -29903480.23 0.0134 0.0014
 Saturn -86584-02-18 00:56 J -29903334.66 -29903334.46 -29903334.24 0.0271 0.0142
 Uranus -86584-09-29 10:18 J -29903111.31 -29903111.07 -29903110.81 0.0134 0.0009
 Saturn -86583-03-01 10:18 J -29902958.15 -29902958.07 -29902957.97 0.0270 0.0249
 Uranus -86583-10-04 00:27 J -29902741.75 -29902741.48 -29902741.21 0.0133 0.0014
 Uranus -86582-10-08 07:39 J -29902372.43 -29902372.18 -29902371.93 0.0133 0.0012
 Jupiter -86581-09-23 14:23 J -29902020.95 -29902020.90 -29902020.83 0.0514 0.0497
 Uranus -86581-10-11 20:23 J -29902002.90 -29902002.65 -29902002.39 0.0133 0.0034
 Uranus -86580-10-16 00:42 J -29901633.70 -29901633.47 -29901633.21 0.0132 0.0036
 Uranus -86579-10-20 12:13 J -29901264.22 -29901263.99 -29901263.73 0.0132 0.0049
 Uranus -86578-10-24 14:37 J -29900895.10 -29900894.89 -29900894.66 0.0132 0.0061
 Uranus -86577-10-28 00:27 J -29900525.70 -29900525.48 -29900525.24 0.0132 0.0064
 Uranus -86576-11-01 00:56 J -29900156.63 -29900156.46 -29900156.25 0.0131 0.0084
 Uranus -86575-11-05 10:18 J -29899787.28 -29899787.07 -29899786.86 0.0131 0.0078
 Uranus -86574-11-09 09:20 J -29899418.26 -29899418.11 -29899417.94 0.0131 0.0099
 Uranus -86573-11-12 17:01 J -29899048.95 -29899048.79 -29899048.59 0.0131 0.0096
 Saturn -86572-07-18 08:08 J -29898801.33 -29898801.16 -29898800.98 0.0286 0.0199
 Uranus -86572-11-16 15:35 J -29898679.97 -29898679.85 -29898679.70 0.0131 0.0110
 Saturn -86571-08-02 04:32 J -29898421.55 -29898421.31 -29898421.06 0.0287 0.0050
 Uranus -86571-11-20 22:47 J -29898310.67 -29898310.55 -29898310.43 0.0131 0.0116
 Saturn -86570-08-17 02:08 J -29898041.65 -29898041.41 -29898041.17 0.0288 0.0104
 Uranus -86570-11-24 20:23 J -29897941.76 -29897941.65 -29897941.54 0.0131 0.0118
 Saturn -86569-08-30 21:20 J -29897661.73 -29897661.61 -29897661.47 0.0289 0.0251
 Jupiter -86569-09-28 15:49 J -29897633.07 -29897632.84 -29897632.60 0.0516 0.0173
 Uranus -86569-11-28 01:54 J -29897572.42 -29897572.42 -29897572.39 0.0131 0.0131
 Uranus -86568-12-01 23:01 J -29897203.59 -29897203.54 -29897203.44 0.0131 0.0125
 Mars -86564-12-24 11:15 J -29895720.20 -29895720.03 -29895719.85 0.1880 0.0929
 Jupiter -86563-03-22 23:44 J -29895631.72 -29895631.51 -29895631.30 0.0513 0.0222

Saturn -86558-01-10 17:59 J -29893876.82 -29893876.75 -29893876.66 0.0275 0.0256
 Saturn -86557-01-22 08:51 J -29893500.34 -29893500.13 -29893499.90 0.0273 0.0127
 Jupiter -86557-10-03 11:30 J -29893245.23 -29893245.02 -29893244.80 0.0518 0.0176
 Saturn -86556-02-01 20:51 J -29893123.87 -29893123.63 -29893123.39 0.0272 0.0007
 Saturn -86555-02-13 13:11 J -29892747.16 -29892746.95 -29892746.73 0.0271 0.0100
 Saturn -86554-02-25 05:01 J -29892370.44 -29892370.29 -29892370.13 0.0271 0.0202
 Uranus -86553-01-25 10:03 J -29892036.12 -29892036.08 -29892036.00 0.0137 0.0132
 Uranus -86552-01-28 19:39 J -29891666.69 -29891666.68 -29891666.63 0.0137 0.0136
 Uranus -86551-02-01 23:15 J -29891297.64 -29891297.53 -29891297.40 0.0138 0.0117
 Jupiter -86551-03-27 18:27 J -29891243.95 -29891243.73 -29891243.51 0.0511 0.0097
 Uranus -86550-02-06 10:32 J -29890928.17 -29890928.06 -29890927.94 0.0139 0.0123
 Uranus -86549-02-10 14:37 J -29890559.03 -29890558.89 -29890558.71 0.0139 0.0105
 Uranus -86548-02-14 04:03 J -29890189.48 -29890189.33 -29890189.14 0.0140 0.0103
 Uranus -86547-02-18 10:18 J -29889820.24 -29889820.07 -29889819.89 0.0140 0.0095
 Uranus -86546-02-23 02:37 J -29889450.60 -29889450.39 -29889450.18 0.0141 0.0079
 Uranus -86545-02-27 10:03 J -29889081.27 -29889081.08 -29889080.88 0.0142 0.0080
 Jupiter -86545-10-08 16:18 J -29888856.91 -29888856.82 -29888856.70 0.0520 0.0464
 Uranus -86544-03-03 05:30 J -29888711.50 -29888711.27 -29888711.03 0.0142 0.0054
 Uranus -86543-03-07 14:37 J -29888342.11 -29888341.89 -29888341.66 0.0143 0.0056
 Saturn -86543-07-12 06:13 J -29888215.34 -29888215.24 -29888215.11 0.0285 0.0255
 Uranus -86542-03-12 13:11 J -29887972.18 -29887971.95 -29887971.70 0.0144 0.0037
 Saturn -86542-07-26 19:11 J -29887835.93 -29887835.70 -29887835.45 0.0287 0.0113
 Uranus -86541-03-16 00:27 J -29887602.72 -29887602.48 -29887602.24 0.0144 0.0025
 Saturn -86541-08-09 14:37 J -29887456.14 -29887455.89 -29887455.64 0.0288 0.0041
 Uranus -86540-03-21 01:54 J -29887232.66 -29887232.42 -29887232.17 0.0145 0.0019
 Saturn -86540-08-24 14:08 J -29887076.09 -29887075.91 -29887075.73 0.0289 0.0192
 Uranus -86539-03-25 15:06 J -29886863.12 -29886862.87 -29886862.62 0.0145 0.0008
 Jupiter -86539-04-01 05:01 J -29886856.46 -29886856.29 -29886856.12 0.0508 0.0360
 Uranus -86538-03-30 19:25 J -29886492.94 -29886492.69 -29886492.44 0.0146 0.0008
 Mars -86538-06-19 16:47 J -29886412.00 -29886411.80 -29886411.59 0.1654 0.0459

Uranus	-86537-04-03 11:15 J	-29886123.28	-29886123.03	-29886122.79	0.0146	0.0034
Uranus	-86536-04-08 17:15 J	-29885753.00	-29885752.78	-29885752.53	0.0146	0.0043
Uranus	-86535-04-13 12:27 J	-29885383.21	-29885382.98	-29885382.73	0.0147	0.0052
Uranus	-86534-04-18 19:39 J	-29885012.88	-29885012.68	-29885012.46	0.0147	0.0077
Uranus	-86533-04-22 19:11 J	-29884642.92	-29884642.70	-29884642.47	0.0147	0.0075
Uranus	-86532-04-28 01:39 J	-29884272.60	-29884272.43	-29884272.25	0.0148	0.0101
Uranus	-86531-05-03 05:30 J	-29883902.43	-29883902.27	-29883902.07	0.0148	0.0108
Uranus	-86530-05-08 10:32 J	-29883532.20	-29883532.06	-29883531.89	0.0148	0.0115
Uranus	-86529-05-12 19:39 J	-29883161.77	-29883161.68	-29883161.57	0.0148	0.0136
Saturn	-86528-01-16 09:20 J	-29882913.28	-29882913.11	-29882912.94	0.0274	0.0185
Uranus	-86528-05-17 23:01 J	-29882791.64	-29882791.54	-29882791.42	0.0148	0.0132
Neptune	-86528-09-22 20:23 J	-29882663.76	-29882663.65	-29882663.49	0.0088	0.0077
Saturn	-86527-01-28 05:30 J	-29882536.50	-29882536.27	-29882536.04	0.0272	0.0060
Neptune	-86527-09-25 12:13 J	-29882296.17	-29882295.99	-29882295.75	0.0088	0.0053
Saturn	-86526-02-08 15:49 J	-29882160.08	-29882159.84	-29882159.60	0.0271	0.0051
Neptune	-86526-09-27 21:06 J	-29881928.87	-29881928.62	-29881928.36	0.0088	0.0024
Saturn	-86525-02-19 23:44 J	-29881783.70	-29881783.51	-29881783.31	0.0271	0.0154
Neptune	-86525-09-29 16:47 J	-29881561.06	-29881560.80	-29881560.54	0.0088	0.0000
Saturn	-86524-03-02 15:35 J	-29881406.90	-29881406.85	-29881406.81	0.0270	0.0264
Neptune	-86524-10-01 22:47 J	-29881193.79	-29881193.55	-29881193.30	0.0088	0.0029
Neptune	-86523-10-04 18:42 J	-29880825.91	-29880825.72	-29880825.49	0.0088	0.0053
Neptune	-86522-10-07 01:25 J	-29880458.51	-29880458.44	-29880458.33	0.0088	0.0082
Pluto	-86517-06-24 21:35 J	-29878735.86	-29878735.60	-29878735.31	0.0067	0.0010
Saturn	-86513-07-19 13:25 J	-29877250.12	-29877249.94	-29877249.73	0.0286	0.0185
Uranus	-86513-08-01 10:47 J	-29877237.11	-29877237.05	-29877236.96	0.0141	0.0134
Saturn	-86512-08-03 06:56 J	-29876870.47	-29876870.21	-29876869.96	0.0287	0.0034
Uranus	-86512-08-06 20:37 J	-29876866.75	-29876866.64	-29876866.52	0.0140	0.0126
Uranus	-86511-08-11 14:08 J	-29876497.01	-29876496.91	-29876496.77	0.0140	0.0124
Saturn	-86511-08-18 00:42 J	-29876490.71	-29876490.47	-29876490.23	0.0288	0.0118
Uranus	-86510-08-16 21:20 J	-29876126.78	-29876126.61	-29876126.43	0.0139	0.0101

Saturn	-86510-09-01 18:42 J	-29876110.81	-29876110.72	-29876110.60	0.0289	0.0264
Uranus	-86509-08-20 13:11 J	-29875757.10	-29875756.95	-29875756.76	0.0139	0.0106
Uranus	-86508-08-25 16:47 J	-29875386.99	-29875386.80	-29875386.59	0.0138	0.0085
Uranus	-86507-08-30 08:23 J	-29875017.37	-29875017.15	-29875016.92	0.0137	0.0077
Uranus	-86506-09-04 07:39 J	-29874647.39	-29874647.18	-29874646.95	0.0137	0.0070
Uranus	-86505-09-07 22:32 J	-29874277.81	-29874277.56	-29874277.30	0.0136	0.0048
Uranus	-86504-09-12 17:44 J	-29873908.00	-29873907.76	-29873907.53	0.0136	0.0050
Uranus	-86503-09-17 07:54 J	-29873538.43	-29873538.17	-29873537.90	0.0135	0.0027
Uranus	-86502-09-21 22:47 J	-29873168.80	-29873168.55	-29873168.30	0.0135	0.0024
Uranus	-86501-09-25 11:59 J	-29872799.26	-29872799.00	-29872798.72	0.0134	0.0012
Uranus	-86500-09-29 23:30 J	-29872429.77	-29872429.52	-29872429.27	0.0134	0.0006
Saturn	-86499-01-11 16:18 J	-29872325.93	-29872325.82	-29872325.68	0.0275	0.0235
Uranus	-86499-10-04 11:59 J	-29872060.27	-29872060.00	-29872059.73	0.0133	0.0007
Saturn	-86498-01-23 06:42 J	-29871949.43	-29871949.22	-29871948.99	0.0273	0.0109
Uranus	-86498-10-08 20:08 J	-29871690.89	-29871690.66	-29871690.40	0.0133	0.0030
Saturn	-86497-02-04 00:42 J	-29871572.70	-29871572.47	-29871572.24	0.0272	0.0008
Uranus	-86497-10-12 07:54 J	-29871321.43	-29871321.17	-29871320.90	0.0133	0.0027
Saturn	-86496-02-14 17:44 J	-29871195.97	-29871195.76	-29871195.54	0.0271	0.0113
Uranus	-86496-10-16 13:54 J	-29870952.15	-29870951.92	-29870951.68	0.0132	0.0047
Saturn	-86495-02-26 03:20 J	-29870819.50	-29870819.36	-29870819.21	0.0271	0.0216
Uranus	-86495-10-21 00:27 J	-29870582.71	-29870582.48	-29870582.23	0.0132	0.0052
Uranus	-86494-10-25 03:49 J	-29870213.54	-29870213.34	-29870213.10	0.0132	0.0061
Uranus	-86493-10-28 13:25 J	-29869844.15	-29869843.94	-29869843.73	0.0132	0.0076
Uranus	-86492-11-01 14:51 J	-29869475.08	-29869474.88	-29869474.67	0.0132	0.0074
Uranus	-86491-11-05 22:47 J	-29869105.73	-29869105.55	-29869105.37	0.0131	0.0094
Uranus	-86490-11-09 22:18 J	-29868736.73	-29868736.57	-29868736.37	0.0131	0.0090
Uranus	-86489-11-13 05:01 J	-29868367.42	-29868367.29	-29868367.12	0.0131	0.0107
Uranus	-86488-11-17 04:32 J	-29867998.45	-29867998.31	-29867998.17	0.0131	0.0108
Uranus	-86487-11-21 10:03 J	-29867629.18	-29867629.08	-29867628.93	0.0131	0.0116
Jupiter	-86486-09-28 14:23 J	-29867318.11	-29867317.90	-29867317.68	0.0515	0.0207

Uranus -86486-11-25 09:06 J -29867260.19 -29867260.12 -29867260.04 0.0131 0.0125
 Uranus -86485-11-28 14:23 J -29866890.98 -29866890.90 -29866890.78 0.0131 0.0121
 Mars -86485-12-27 21:35 J -29866861.78 -29866861.60 -29866861.43 0.1874 0.0987
 Saturn -86484-07-13 07:54 J -29866664.29 -29866664.17 -29866664.03 0.0285 0.0241
 Saturn -86483-07-28 00:42 J -29866284.70 -29866284.47 -29866284.23 0.0287 0.0097
 Uranus -86483-12-06 17:30 J -29866152.79 -29866152.77 -29866152.68 0.0132 0.0129
 Saturn -86482-08-11 22:47 J -29865904.78 -29865904.55 -29865904.30 0.0288 0.0057
 Saturn -86481-08-25 22:18 J -29865524.73 -29865524.57 -29865524.39 0.0289 0.0207
 Jupiter -86480-03-22 15:20 J -29865316.06 -29865315.86 -29865315.67 0.0514 0.0241
 Jupiter -86474-10-03 21:20 J -29862929.84 -29862929.61 -29862929.38 0.0517 0.0142
 Uranus -86470-01-21 20:51 J -29861723.66 -29861723.63 -29861723.56 0.0136 0.0133
 Saturn -86469-01-18 15:06 J -29861362.05 -29861361.87 -29861361.68 0.0274 0.0165
 Uranus -86469-01-25 23:44 J -29861354.53 -29861354.51 -29861354.45 0.0137 0.0135
 Saturn -86468-01-29 05:15 J -29860985.53 -29860985.28 -29860985.04 0.0272 0.0046
 Uranus -86468-01-29 07:54 J -29860985.27 -29860985.17 -29860985.02 0.0137 0.0120 *
 Jupiter -86468-03-27 01:25 J -29860928.67 -29860928.44 -29860928.20 0.0511 0.0075
 Uranus -86467-02-02 12:27 J -29860616.06 -29860615.98 -29860615.87 0.0138 0.0126
 Saturn -86467-02-09 14:08 J -29860609.14 -29860608.91 -29860608.67 0.0271 0.0063
 Uranus -86466-02-06 22:47 J -29860246.70 -29860246.55 -29860246.37 0.0139 0.0105
 Saturn -86466-02-21 04:18 J -29860232.49 -29860232.32 -29860232.13 0.0271 0.0169
 Uranus -86465-02-11 04:18 J -29859877.44 -29859877.32 -29859877.15 0.0139 0.0110
 Uranus -86464-02-14 17:30 J -29859507.95 -29859507.77 -29859507.58 0.0140 0.0094
 Uranus -86463-02-19 00:27 J -29859138.66 -29859138.48 -29859138.29 0.0140 0.0087
 Uranus -86462-02-23 15:35 J -29858769.03 -29858768.85 -29858768.63 0.0141 0.0083
 Jupiter -86462-10-08 15:20 J -29858541.98 -29858541.86 -29858541.72 0.0520 0.0432
 Uranus -86461-02-27 23:59 J -29858399.70 -29858399.50 -29858399.27 0.0142 0.0061
 Uranus -86460-03-03 18:27 J -29858029.95 -29858029.73 -29858029.50 0.0142 0.0063
 Uranus -86459-03-08 04:03 J -29857660.55 -29857660.33 -29857660.09 0.0143 0.0039
 Mars -86459-06-22 09:20 J -29857554.31 -29857554.11 -29857553.92 0.1659 0.0102
 Uranus -86458-03-13 02:08 J -29857290.65 -29857290.41 -29857290.16 0.0143 0.0035

Uranus	-86457-03-16 13:39 J	-29856921.17	-29856920.93	-29856920.68	0.0144	0.0022
Uranus	-86456-03-21 15:20 J	-29856551.11	-29856550.86	-29856550.61	0.0145	0.0003
Jupiter	-86456-03-31 13:39 J	-29856541.10	-29856540.93	-29856540.76	0.0509	0.0325
Uranus	-86455-03-26 04:47 J	-29856181.55	-29856181.30	-29856181.05	0.0145	0.0002
Uranus	-86454-03-31 09:06 J	-29855811.36	-29855811.12	-29855810.87	0.0146	0.0028
Saturn	-86454-07-21 14:51 J	-29855699.08	-29855698.88	-29855698.66	0.0286	0.0168
Uranus	-86453-04-04 00:42 J	-29855441.72	-29855441.47	-29855441.22	0.0146	0.0028
Saturn	-86453-08-04 05:59 J	-29855319.51	-29855319.25	-29855318.99	0.0287	0.0020
Uranus	-86452-04-09 06:42 J	-29855071.44	-29855071.22	-29855070.97	0.0146	0.0048
Saturn	-86452-08-19 00:56 J	-29854939.68	-29854939.46	-29854939.23	0.0288	0.0133
Uranus	-86451-04-14 00:56 J	-29854701.68	-29854701.46	-29854701.22	0.0147	0.0063
Saturn	-86451-09-02 22:47 J	-29854559.60	-29854559.55	-29854559.48	0.0289	0.0280
Uranus	-86450-04-19 08:37 J	-29854331.35	-29854331.14	-29854330.91	0.0147	0.0066
Uranus	-86449-04-23 06:42 J	-29853961.41	-29853961.22	-29853961.01	0.0147	0.0093
Uranus	-86448-04-28 14:23 J	-29853591.09	-29853590.90	-29853590.71	0.0147	0.0094
Uranus	-86447-05-03 17:15 J	-29853220.95	-29853220.78	-29853220.60	0.0148	0.0110
Uranus	-86446-05-08 23:30 J	-29852850.64	-29852850.52	-29852850.38	0.0148	0.0125
Neptune	-86445-03-18 18:27 J	-29852535.83	-29852535.73	-29852535.56	0.0089	0.0077
Uranus	-86445-05-13 07:25 J	-29852480.32	-29852480.19	-29852480.02	0.0148	0.0123
Neptune	-86444-03-20 23:44 J	-29852168.72	-29852168.51	-29852168.29	0.0089	0.0042
Uranus	-86444-05-18 11:44 J	-29852110.02	-29852110.01	-29852109.96	0.0148	0.0147
Neptune	-86443-03-23 12:42 J	-29851801.21	-29851800.97	-29851800.71	0.0089	0.0024
Uranus	-86443-05-24 00:27 J	-29851739.51	-29851739.48	-29851739.41	0.0147	0.0145
Neptune	-86442-03-25 21:35 J	-29851433.84	-29851433.60	-29851433.35	0.0089	0.0010
Neptune	-86441-03-27 05:30 J	-29851066.50	-29851066.27	-29851066.01	0.0089	0.0029
Saturn	-86440-01-12 14:37 J	-29850775.04	-29850774.89	-29850774.74	0.0275	0.0214
Neptune	-86440-03-29 19:54 J	-29850698.85	-29850698.67	-29850698.49	0.0089	0.0062
Saturn	-86439-01-24 11:01 J	-29850398.25	-29850398.04	-29850397.82	0.0274	0.0092
Neptune	-86439-03-31 23:59 J	-29850331.59	-29850331.50	-29850331.36	0.0089	0.0079
Saturn	-86438-02-05 07:11 J	-29850021.43	-29850021.20	-29850020.96	0.0272	0.0020

Saturn -86437-02-16 18:56 J -29849644.93 -29849644.71 -29849644.49 0.0271 0.0125
 Saturn -86436-02-27 02:23 J -29849268.52 -29849268.40 -29849268.27 0.0271 0.0230
 Pluto -86431-12-30 23:44 J -29847135.58 -29847135.51 -29847135.38 0.0078 0.0072
 Uranus -86430-07-29 00:27 J -29846925.54 -29846925.48 -29846925.37 0.0142 0.0134
 Uranus -86429-08-01 21:06 J -29846555.67 -29846555.62 -29846555.53 0.0141 0.0135
 Uranus -86428-08-07 06:42 J -29846185.33 -29846185.22 -29846185.09 0.0140 0.0124
 Uranus -86427-08-12 00:42 J -29845815.63 -29845815.47 -29845815.30 0.0140 0.0107
 Uranus -86426-08-17 08:08 J -29845445.31 -29845445.16 -29845445.00 0.0139 0.0110
 Saturn -86425-07-14 17:01 J -29845112.93 -29845112.79 -29845112.63 0.0285 0.0223
 Uranus -86425-08-20 23:44 J -29845075.70 -29845075.51 -29845075.29 0.0139 0.0087
 Saturn -86424-07-29 11:59 J -29844733.24 -29844733.00 -29844732.77 0.0287 0.0080
 Uranus -86424-08-26 04:18 J -29844705.52 -29844705.32 -29844705.12 0.0138 0.0086
 Saturn -86423-08-13 08:51 J -29844353.37 -29844353.13 -29844352.89 0.0288 0.0073
 Uranus -86423-08-30 18:13 J -29844335.95 -29844335.74 -29844335.49 0.0137 0.0071
 Saturn -86422-08-28 04:47 J -29843973.45 -29843973.30 -29843973.13 0.0289 0.0223
 Uranus -86422-09-04 18:27 J -29843965.96 -29843965.73 -29843965.49 0.0137 0.0056
 Uranus -86421-09-08 07:25 J -29843596.42 -29843596.19 -29843595.92 0.0136 0.0056
 Uranus -86420-09-13 03:49 J -29843226.58 -29843226.34 -29843226.08 0.0136 0.0032
 Uranus -86419-09-17 16:47 J -29842857.05 -29842856.80 -29842856.53 0.0135 0.0033
 Uranus -86418-09-22 09:35 J -29842487.35 -29842487.10 -29842486.85 0.0135 0.0014
 Uranus -86417-09-25 21:49 J -29842117.86 -29842117.59 -29842117.32 0.0134 0.0004
 Uranus -86416-09-30 11:01 J -29841748.28 -29841748.04 -29841747.78 0.0134 0.0004
 Uranus -86415-10-04 22:32 J -29841378.81 -29841378.56 -29841378.28 0.0133 0.0024
 Uranus -86414-10-09 08:23 J -29841009.39 -29841009.15 -29841008.89 0.0133 0.0021
 Uranus -86413-10-12 18:56 J -29840639.96 -29840639.71 -29840639.45 0.0133 0.0043
 Mars -86412-06-15 03:49 J -29840394.43 -29840394.34 -29840394.25 0.1641 0.1446
 Uranus -86412-10-17 02:08 J -29840270.65 -29840270.41 -29840270.18 0.0132 0.0043
 Saturn -86411-01-07 22:47 J -29840187.58 -29840187.55 -29840187.49 0.0275 0.0270
 Uranus -86411-10-21 11:01 J -29839901.28 -29839901.04 -29839900.80 0.0132 0.0058
 Saturn -86410-01-19 17:59 J -29839810.94 -29839810.75 -29839810.53 0.0274 0.0146

Uranus	-86410-10-25 15:20 J	-29839532.06	-29839531.86	-29839531.64	0.0132	0.0068
Saturn	-86409-01-31 05:15 J	-29839434.52	-29839434.28	-29839434.04	0.0272	0.0030
Uranus	-86409-10-28 23:15 J	-29839162.75	-29839162.53	-29839162.30	0.0132	0.0070
Saturn	-86408-02-10 20:08 J	-29839057.88	-29839057.66	-29839057.44	0.0271	0.0077
Uranus	-86408-11-02 01:54 J	-29838793.58	-29838793.42	-29838793.22	0.0132	0.0089
Saturn	-86407-02-22 12:42 J	-29838681.14	-29838680.97	-29838680.79	0.0271	0.0182
Uranus	-86407-11-06 09:06 J	-29838424.32	-29838424.12	-29838423.91	0.0131	0.0083
Uranus	-86406-11-10 10:18 J	-29838055.20	-29838055.07	-29838054.90	0.0131	0.0103
Mars	-86405-01-01 01:11 J	-29838003.54	-29838003.45	-29838003.37	0.1867	0.1665
Uranus	-86405-11-13 16:18 J	-29837685.97	-29837685.82	-29837685.63	0.0131	0.0100
Uranus	-86404-11-17 17:15 J	-29837316.89	-29837316.78	-29837316.65	0.0131	0.0114
Jupiter	-86403-09-28 02:08 J	-29837002.63	-29837002.41	-29837002.20	0.0515	0.0224
Uranus	-86403-11-21 21:35 J	-29836947.69	-29836947.60	-29836947.46	0.0131	0.0117
Uranus	-86402-11-25 21:35 J	-29836578.68	-29836578.60	-29836578.48	0.0131	0.0120
Uranus	-86401-11-29 01:54 J	-29836209.43	-29836209.42	-29836209.39	0.0131	0.0131
Uranus	-86400-12-03 01:11 J	-29835840.51	-29835840.45	-29835840.36	0.0131	0.0125
Jupiter	-86397-03-21 19:39 J	-29835000.88	-29835000.68	-29835000.47	0.0514	0.0262
Saturn	-86396-07-08 08:37 J	-29834527.16	-29834527.14	-29834527.11	0.0284	0.0282
Saturn	-86395-07-22 18:13 J	-29834147.95	-29834147.74	-29834147.51	0.0286	0.0151
Saturn	-86394-08-06 11:44 J	-29833768.26	-29833768.01	-29833767.76	0.0287	0.0003
Saturn	-86393-08-20 10:03 J	-29833388.29	-29833388.08	-29833387.87	0.0288	0.0152
Jupiter	-86391-10-02 20:37 J	-29832614.88	-29832614.64	-29832614.41	0.0517	0.0117
Uranus	-86388-01-13 23:30 J	-29831780.56	-29831780.52	-29831780.46	0.0135	0.0132
Uranus	-86386-01-22 08:08 J	-29831042.20	-29831042.16	-29831042.06	0.0136	0.0132
Uranus	-86385-01-26 12:56 J	-29830673.05	-29830672.96	-29830672.84	0.0137	0.0123
Jupiter	-86385-03-26 03:49 J	-29830613.56	-29830613.34	-29830613.12	0.0512	0.0030
Uranus	-86384-01-29 20:23 J	-29830303.74	-29830303.65	-29830303.54	0.0137	0.0126
Uranus	-86383-02-03 01:25 J	-29829934.57	-29829934.44	-29829934.27	0.0138	0.0107
Uranus	-86382-02-07 10:18 J	-29829565.20	-29829565.07	-29829564.90	0.0139	0.0113
Saturn	-86381-01-14 18:56 J	-29829223.87	-29829223.71	-29829223.54	0.0275	0.0194

Uranus -86381-02-11 16:47 J -29829195.96 -29829195.80 -29829195.61 0.0139 0.0094
 Saturn -86380-01-25 18:27 J -29828846.95 -29828846.73 -29828846.50 0.0274 0.0074
 Uranus -86380-02-15 04:03 J -29828826.50 -29828826.33 -29828826.12 0.0140 0.0093
 Mars -86380-06-24 14:37 J -29828697.02 -29828696.89 -29828696.75 0.1662 0.1116
 Saturn -86379-02-06 09:35 J -29828470.34 -29828470.10 -29828469.85 0.0272 0.0036
 Uranus -86379-02-19 11:59 J -29828457.17 -29828457.00 -29828456.79 0.0140 0.0084
 Jupiter -86379-10-08 03:35 J -29828226.50 -29828226.35 -29828226.20 0.0519 0.0397
 Saturn -86378-02-17 17:59 J -29828093.96 -29828093.75 -29828093.54 0.0271 0.0138
 Uranus -86378-02-24 02:23 J -29828087.61 -29828087.40 -29828087.17 0.0141 0.0068
 Uranus -86377-02-28 11:59 J -29827718.20 -29827718.00 -29827717.78 0.0142 0.0068
 Saturn -86377-02-29 07:11 J -29827717.29 -29827717.20 -29827717.10 0.0271 0.0246
 Uranus -86376-03-04 05:59 J -29827348.49 -29827348.25 -29827348.01 0.0142 0.0043
 Uranus -86375-03-08 16:32 J -29826979.03 -29826978.81 -29826978.57 0.0143 0.0045
 Uranus -86374-03-13 14:08 J -29826609.16 -29826608.91 -29826608.66 0.0143 0.0024
 Uranus -86373-03-17 02:23 J -29826239.64 -29826239.40 -29826239.16 0.0144 0.0014
 Jupiter -86373-03-30 18:42 J -29826225.92 -29826225.72 -29826225.52 0.0510 0.0271
 Uranus -86372-03-22 02:51 J -29825869.63 -29825869.38 -29825869.12 0.0144 0.0008
 Uranus -86371-03-26 16:32 J -29825500.06 -29825499.81 -29825499.57 0.0145 0.0019
 Uranus -86370-03-31 20:23 J -29825129.90 -29825129.65 -29825129.40 0.0146 0.0018
 Uranus -86369-04-04 11:30 J -29824760.25 -29824760.02 -29824759.77 0.0146 0.0044
 Uranus -86368-04-09 18:13 J -29824389.96 -29824389.74 -29824389.49 0.0146 0.0050
 Uranus -86367-04-14 12:27 J -29824020.21 -29824019.98 -29824019.74 0.0147 0.0060
 Uranus -86366-04-19 20:51 J -29823649.83 -29823649.63 -29823649.42 0.0147 0.0083
 Saturn -86366-07-17 06:27 J -29823561.40 -29823561.23 -29823561.06 0.0285 0.0204
 Uranus -86365-04-23 18:13 J -29823279.95 -29823279.74 -29823279.52 0.0147 0.0082
 Saturn -86365-07-30 22:32 J -29823181.81 -29823181.56 -29823181.31 0.0287 0.0060
 Uranus -86364-04-29 02:37 J -29822909.55 -29822909.39 -29822909.21 0.0147 0.0107
 Saturn -86364-08-14 16:03 J -29822802.08 -29822801.83 -29822801.58 0.0288 0.0091
 Neptune -86364-09-22 05:15 J -29822763.32 -29822763.28 -29822763.19 0.0088 0.0086
 Uranus -86363-05-04 04:03 J -29822539.49 -29822539.33 -29822539.14 0.0148 0.0111

Saturn -86363-08-29 10:03 J -29822422.22 -29822422.08 -29822421.93 0.0289 0.0239
 Neptune -86363-09-24 13:39 J -29822396.10 -29822395.93 -29822395.76 0.0088 0.0068
 Uranus -86362-05-09 11:30 J -29822169.15 -29822169.02 -29822168.86 0.0148 0.0119
 Neptune -86362-09-27 09:35 J -29822028.33 -29822028.10 -29822027.84 0.0088 0.0033
 Uranus -86361-05-13 18:27 J -29821798.82 -29821798.73 -29821798.64 0.0148 0.0138
 Neptune -86361-09-28 16:03 J -29821661.08 -29821660.83 -29821660.57 0.0088 0.0015
 Uranus -86360-05-18 23:44 J -29821428.60 -29821428.51 -29821428.39 0.0148 0.0134
 Neptune -86360-10-01 11:59 J -29821293.26 -29821293.00 -29821292.73 0.0088 0.0019
 Neptune -86359-10-03 19:39 J -29820925.91 -29820925.68 -29820925.44 0.0088 0.0037
 Mars -86359-12-21 19:25 J -29820846.81 -29820846.69 -29820846.57 0.1895 0.1416
 Neptune -86358-10-06 11:15 J -29820558.16 -29820558.03 -29820557.84 0.0088 0.0071
 Saturn -86352-01-09 03:35 J -29818636.44 -29818636.35 -29818636.23 0.0275 0.0248
 Saturn -86351-01-20 19:25 J -29818259.90 -29818259.69 -29818259.47 0.0274 0.0125
 Saturn -86350-02-01 11:30 J -29817883.25 -29817883.02 -29817882.79 0.0272 0.0012
 Saturn -86349-02-13 06:13 J -29817506.46 -29817506.24 -29817506.02 0.0271 0.0091
 Saturn -86348-02-23 18:42 J -29817129.87 -29817129.72 -29817129.54 0.0271 0.0197
 Uranus -86347-07-24 02:37 J -29816614.44 -29816614.39 -29816614.29 0.0142 0.0136
 Uranus -86346-07-29 11:44 J -29816244.02 -29816244.01 -29816243.96 0.0142 0.0141
 Uranus -86345-08-02 09:20 J -29815874.23 -29815874.11 -29815873.97 0.0141 0.0122
 Uranus -86344-08-07 18:13 J -29815503.88 -29815503.74 -29815503.57 0.0140 0.0115
 Uranus -86343-08-12 11:59 J -29815134.13 -29815134.00 -29815133.82 0.0140 0.0112
 Uranus -86342-08-17 18:56 J -29814763.89 -29814763.71 -29814763.49 0.0139 0.0090
 Uranus -86341-08-21 10:47 J -29814394.24 -29814394.05 -29814393.86 0.0139 0.0094
 Uranus -86340-08-26 14:51 J -29814024.08 -29814023.88 -29814023.64 0.0138 0.0073
 Uranus -86339-08-31 04:47 J -29813654.52 -29813654.30 -29813654.05 0.0137 0.0066
 Uranus -86338-09-05 05:59 J -29813284.47 -29813284.25 -29813284.01 0.0137 0.0058
 Saturn -86337-07-09 15:06 J -29812975.94 -29812975.87 -29812975.76 0.0284 0.0264
 Uranus -86337-09-08 18:56 J -29812914.97 -29812914.71 -29812914.45 0.0136 0.0037
 Saturn -86336-07-24 05:01 J -29812596.50 -29812596.29 -29812596.06 0.0286 0.0129
 Uranus -86336-09-13 16:18 J -29812545.05 -29812544.82 -29812544.57 0.0136 0.0040

Saturn -86335-08-08 01:54 J -29812216.66 -29812216.42 -29812216.17 0.0287 0.0020
 Uranus -86335-09-18 04:18 J -29812175.58 -29812175.32 -29812175.05 0.0135 0.0016
 Saturn -86334-08-23 01:11 J -29811836.65 -29811836.45 -29811836.25 0.0288 0.0170
 Uranus -86334-09-22 21:49 J -29811805.84 -29811805.59 -29811805.34 0.0135 0.0014
 Mars -86333-06-17 04:47 J -29811537.43 -29811537.30 -29811537.17 0.1645 0.1156
 Uranus -86333-09-26 08:51 J -29811436.40 -29811436.13 -29811435.86 0.0134 0.0002
 Uranus -86332-09-30 23:01 J -29811066.79 -29811066.54 -29811066.29 0.0134 0.0015
 Uranus -86331-10-05 09:06 J -29810697.39 -29810697.12 -29810696.86 0.0133 0.0017
 Uranus -86330-10-09 19:54 J -29810327.90 -29810327.67 -29810327.42 0.0133 0.0039
 Uranus -86329-10-13 05:01 J -29809958.53 -29809958.29 -29809958.02 0.0133 0.0036
 Uranus -86328-10-17 13:39 J -29809589.14 -29809588.93 -29809588.69 0.0132 0.0056
 Uranus -86327-10-21 21:35 J -29809219.82 -29809219.60 -29809219.34 0.0132 0.0059
 Uranus -86326-10-26 03:35 J -29808850.55 -29808850.35 -29808850.12 0.0132 0.0069
 Uranus -86325-10-29 10:18 J -29808481.26 -29808481.07 -29808480.85 0.0132 0.0082
 Uranus -86324-11-02 14:23 J -29808112.08 -29808111.90 -29808111.69 0.0131 0.0080
 Uranus -86323-11-06 19:39 J -29807742.83 -29807742.68 -29807742.49 0.0131 0.0099
 Saturn -86322-01-16 04:32 J -29807672.48 -29807672.31 -29807672.12 0.0275 0.0175
 Uranus -86322-11-10 22:18 J -29807373.73 -29807373.57 -29807373.38 0.0131 0.0093
 Saturn -86321-01-28 00:42 J -29807295.71 -29807295.47 -29807295.24 0.0274 0.0054
 Uranus -86321-11-14 03:06 J -29807004.50 -29807004.37 -29807004.22 0.0131 0.0111
 Saturn -86320-02-07 10:47 J -29806919.29 -29806919.05 -29806918.81 0.0272 0.0050
 Jupiter -86320-09-26 23:01 J -29806687.74 -29806687.54 -29806687.33 0.0514 0.0253
 Uranus -86320-11-18 04:47 J -29806635.42 -29806635.30 -29806635.16 0.0131 0.0110
 Saturn -86319-02-18 23:15 J -29806542.72 -29806542.53 -29806542.33 0.0271 0.0154
 Uranus -86319-11-22 08:51 J -29806266.23 -29806266.13 -29806266.01 0.0131 0.0118
 Saturn -86318-03-02 17:01 J -29806165.84 -29806165.79 -29806165.73 0.0271 0.0262
 Uranus -86318-11-26 09:49 J -29805897.14 -29805897.09 -29805897.00 0.0131 0.0126
 Uranus -86317-11-29 13:25 J -29805528.02 -29805527.94 -29805527.83 0.0131 0.0122
 Uranus -86315-12-07 16:03 J -29804789.86 -29804789.83 -29804789.74 0.0132 0.0128
 Jupiter -86314-03-21 19:39 J -29804685.85 -29804685.68 -29804685.50 0.0515 0.0308

Jupiter -86308-10-02 01:54 J -29802299.65 -29802299.42 -29802299.19 0.0516 0.0067
 Saturn -86307-07-18 18:42 J -29802009.91 -29802009.72 -29802009.51 0.0285 0.0180
 Saturn -86306-08-02 07:39 J -29801630.44 -29801630.18 -29801629.92 0.0287 0.0038
 Uranus -86305-01-11 07:54 J -29801468.21 -29801468.17 -29801468.11 0.0135 0.0131
 Saturn -86305-08-16 00:13 J -29801250.73 -29801250.49 -29801250.25 0.0288 0.0111
 Saturn -86304-08-30 20:23 J -29800870.76 -29800870.65 -29800870.53 0.0289 0.0257
 Uranus -86303-01-18 15:20 J -29800729.93 -29800729.86 -29800729.78 0.0136 0.0128
 Uranus -86302-01-22 19:25 J -29800360.78 -29800360.69 -29800360.59 0.0136 0.0125
 Jupiter -86302-03-26 12:27 J -29800298.21 -29800297.98 -29800297.74 0.0513 0.0008
 Uranus -86301-01-27 00:42 J -29799991.56 -29799991.47 -29799991.37 0.0137 0.0125
 Mars -86301-06-26 17:15 J -29799839.87 -29799839.78 -29799839.70 0.1666 0.1471
 Uranus -86300-01-30 06:13 J -29799622.38 -29799622.24 -29799622.07 0.0137 0.0110
 Uranus -86299-02-03 13:11 J -29799253.08 -29799252.95 -29799252.82 0.0138 0.0115
 Uranus -86298-02-07 20:51 J -29798883.81 -29798883.63 -29798883.43 0.0139 0.0094
 Uranus -86297-02-12 04:32 J -29798514.45 -29798514.31 -29798514.12 0.0139 0.0100
 Uranus -86296-02-15 15:06 J -29798145.06 -29798144.87 -29798144.65 0.0140 0.0083
 Jupiter -86296-10-06 19:39 J -29797911.86 -29797911.68 -29797911.49 0.0518 0.0337
 Uranus -86295-02-20 00:13 J -29797775.68 -29797775.49 -29797775.28 0.0140 0.0076
 Uranus -86294-02-24 13:39 J -29797406.16 -29797405.93 -29797405.71 0.0141 0.0070
 Saturn -86293-01-11 06:27 J -29797085.36 -29797085.23 -29797085.09 0.0275 0.0227
 Uranus -86293-02-28 23:44 J -29797036.73 -29797036.51 -29797036.28 0.0142 0.0050
 Saturn -86292-01-22 01:39 J -29796708.65 -29796708.43 -29796708.22 0.0274 0.0106
 Uranus -86292-03-04 16:18 J -29796667.06 -29796666.82 -29796666.58 0.0142 0.0051
 Saturn -86291-02-02 22:18 J -29796331.80 -29796331.57 -29796331.34 0.0272 0.0006
 Uranus -86291-03-09 03:49 J -29796297.57 -29796297.34 -29796297.10 0.0143 0.0027
 Saturn -86290-02-14 13:39 J -29795955.15 -29795954.93 -29795954.71 0.0271 0.0107
 Uranus -86290-03-13 23:59 J -29795927.74 -29795927.50 -29795927.24 0.0143 0.0025
 Jupiter -86290-03-30 19:39 J -29795910.87 -29795910.68 -29795910.47 0.0510 0.0238
 Saturn -86289-02-25 21:35 J -29795578.75 -29795578.60 -29795578.44 0.0271 0.0212
 Uranus -86289-03-17 13:11 J -29795558.19 -29795557.95 -29795557.71 0.0144 0.0010

Uranus -86288-03-22 13:11 J -29795188.20 -29795187.95 -29795187.70 0.0144 0.0008
 Uranus -86287-03-27 03:20 J -29794818.61 -29794818.36 -29794818.12 0.0145 0.0010
 Uranus -86286-04-01 06:42 J -29794448.46 -29794448.22 -29794447.97 0.0145 0.0038
 Uranus -86285-04-04 22:18 J -29794078.81 -29794078.57 -29794078.33 0.0146 0.0037
 Uranus -86284-04-10 04:32 J -29793708.54 -29793708.31 -29793708.07 0.0146 0.0056
 Uranus -86283-04-14 21:49 J -29793338.80 -29793338.59 -29793338.36 0.0147 0.0070
 Uranus -86282-04-20 06:13 J -29792968.44 -29792968.24 -29792968.01 0.0147 0.0073
 Neptune -86281-03-17 23:01 J -29792635.58 -29792635.54 -29792635.47 0.0089 0.0086
 Uranus -86281-04-24 02:23 J -29792598.57 -29792598.40 -29792598.19 0.0147 0.0100
 Neptune -86280-03-20 11:30 J -29792268.22 -29792268.02 -29792267.82 0.0089 0.0056
 Uranus -86280-04-29 11:59 J -29792228.16 -29792228.00 -29792227.80 0.0147 0.0099
 Mars -86280-12-24 16:03 J -29791988.99 -29791988.83 -29791988.66 0.1889 0.0667
 Neptune -86279-03-22 21:49 J -29791900.82 -29791900.59 -29791900.37 0.0089 0.0036
 Uranus -86279-05-04 12:42 J -29791858.11 -29791857.97 -29791857.79 0.0147 0.0115
 Neptune -86278-03-25 05:15 J -29791533.54 -29791533.28 -29791533.02 0.0089 0.0005
 Jupiter -86278-04-04 15:06 J -29791522.92 -29791522.87 -29791522.81 0.0508 0.0490
 Uranus -86278-05-09 22:03 J -29791487.70 -29791487.58 -29791487.45 0.0147 0.0127
 Saturn -86278-07-12 05:44 J -29791424.39 -29791424.26 -29791424.13 0.0284 0.0242
 Neptune -86277-03-26 19:39 J -29791165.91 -29791165.68 -29791165.42 0.0089 0.0016
 Uranus -86277-05-14 03:06 J -29791117.49 -29791117.37 -29791117.21 0.0148 0.0126
 Saturn -86277-07-25 22:18 J -29791044.79 -29791044.57 -29791044.34 0.0286 0.0106
 Neptune -86276-03-28 23:15 J -29790798.73 -29790798.53 -29790798.30 0.0089 0.0047
 Saturn -86276-08-09 19:11 J -29790664.95 -29790664.70 -29790664.45 0.0287 0.0042
 Neptune -86275-03-31 16:18 J -29790430.97 -29790430.82 -29790430.64 0.0089 0.0068
 Uranus -86275-05-24 20:08 J -29790376.69 -29790376.66 -29790376.58 0.0147 0.0145
 Saturn -86275-08-24 15:49 J -29790285.02 -29790284.84 -29790284.64 0.0288 0.0190
 Pluto -86271-06-26 21:35 J -29788882.84 -29788882.60 -29788882.33 0.0067 0.0018
 Uranus -86264-07-19 08:51 J -29786303.17 -29786303.13 -29786303.04 0.0143 0.0139
 Saturn -86263-01-17 12:13 J -29786121.18 -29786120.99 -29786120.78 0.0275 0.0154
 Saturn -86262-01-29 02:51 J -29785744.63 -29785744.38 -29785744.14 0.0274 0.0038

Uranus -86262-07-29 19:25 J -29785562.80 -29785562.69 -29785562.53 0.0142 0.0123
 Saturn -86261-02-09 16:03 J -29785368.06 -29785367.83 -29785367.60 0.0272 0.0068
 Uranus -86261-08-02 18:13 J -29785192.85 -29785192.74 -29785192.61 0.0141 0.0124
 Saturn -86260-02-20 10:03 J -29784991.25 -29784991.08 -29784990.90 0.0272 0.0171
 Uranus -86260-08-08 02:23 J -29784822.55 -29784822.40 -29784822.22 0.0141 0.0112
 Uranus -86259-08-12 21:06 J -29784452.80 -29784452.62 -29784452.43 0.0140 0.0096
 Uranus -86258-08-18 04:18 J -29784082.50 -29784082.32 -29784082.13 0.0139 0.0099
 Uranus -86257-08-21 19:25 J -29783712.90 -29783712.69 -29783712.46 0.0139 0.0075
 Uranus -86256-08-27 00:27 J -29783342.69 -29783342.48 -29783342.25 0.0138 0.0075
 Uranus -86255-08-31 13:25 J -29782973.17 -29782972.94 -29782972.69 0.0137 0.0059
 Mars -86254-06-20 06:13 J -29782680.43 -29782680.24 -29782680.05 0.1648 0.0024
 Uranus -86254-09-05 15:06 J -29782603.10 -29782602.87 -29782602.62 0.0137 0.0045
 Uranus -86253-09-09 02:51 J -29782233.62 -29782233.38 -29782233.12 0.0136 0.0044
 Uranus -86252-09-14 01:39 J -29781863.68 -29781863.43 -29781863.18 0.0136 0.0020
 Uranus -86251-09-18 12:27 J -29781494.25 -29781493.98 -29781493.72 0.0135 0.0023
 Uranus -86250-09-23 07:39 J -29781124.43 -29781124.18 -29781123.93 0.0135 0.0002
 Uranus -86249-09-26 17:44 J -29780755.03 -29780754.76 -29780754.49 0.0134 0.0006
 Saturn -86248-07-20 04:47 J -29780458.51 -29780458.30 -29780458.08 0.0285 0.0160
 Uranus -86248-10-01 09:35 J -29780385.35 -29780385.10 -29780384.85 0.0134 0.0014
 Saturn -86247-08-03 18:42 J -29780078.97 -29780078.72 -29780078.46 0.0287 0.0017
 Uranus -86247-10-05 18:27 J -29780015.98 -29780015.73 -29780015.46 0.0133 0.0032
 Saturn -86246-08-18 14:37 J -29779699.10 -29779698.89 -29779698.66 0.0288 0.0133
 Uranus -86246-10-10 06:56 J -29779646.45 -29779646.21 -29779645.96 0.0133 0.0030
 Saturn -86245-09-01 13:39 J -29779318.98 -29779318.93 -29779318.85 0.0289 0.0278
 Uranus -86245-10-13 14:23 J -29779277.13 -29779276.90 -29779276.64 0.0133 0.0052
 Uranus -86244-10-18 00:13 J -29778907.71 -29778907.49 -29778907.25 0.0132 0.0050
 Uranus -86243-10-22 06:13 J -29778538.45 -29778538.24 -29778537.99 0.0132 0.0066
 Uranus -86242-10-26 13:25 J -29778169.12 -29778168.94 -29778168.71 0.0132 0.0074
 Uranus -86241-10-29 18:56 J -29777799.90 -29777799.71 -29777799.47 0.0132 0.0077
 Uranus -86240-11-03 01:11 J -29777430.62 -29777430.45 -29777430.28 0.0131 0.0093

Uranus	-86239-11-07 05:30 J	-29777061.45	-29777061.27	-29777061.06	0.0131	0.0088
Uranus	-86238-11-11 10:03 J	-29776692.21	-29776692.08	-29776691.94	0.0131	0.0108
Jupiter	-86237-09-26 02:51 J	-29776372.57	-29776372.38	-29776372.19	0.0513	0.0302
Uranus	-86237-11-14 13:25 J	-29776323.09	-29776322.94	-29776322.76	0.0131	0.0103
Uranus	-86236-11-18 16:32 J	-29775953.90	-29775953.81	-29775953.68	0.0131	0.0117
Uranus	-86235-11-22 19:11 J	-29775584.81	-29775584.70	-29775584.58	0.0131	0.0118
Saturn	-86234-01-12 13:39 J	-29775534.08	-29775533.93	-29775533.77	0.0275	0.0208
Uranus	-86234-11-26 21:20 J	-29775215.68	-29775215.61	-29775215.50	0.0131	0.0121
Saturn	-86233-01-24 13:39 J	-29775157.14	-29775156.93	-29775156.71	0.0273	0.0088
Uranus	-86233-11-29 23:01 J	-29774846.55	-29774846.54	-29774846.49	0.0131	0.0130
Saturn	-86232-02-04 08:37 J	-29774780.38	-29774780.14	-29774779.90	0.0272	0.0024
Uranus	-86232-12-04 01:11 J	-29774477.51	-29774477.45	-29774477.37	0.0131	0.0125
Saturn	-86231-02-15 17:59 J	-29774403.97	-29774403.75	-29774403.53	0.0271	0.0124
Jupiter	-86231-03-21 04:32 J	-29774370.49	-29774370.31	-29774370.13	0.0515	0.0328
Saturn	-86230-02-27 03:35 J	-29774027.46	-29774027.35	-29774027.21	0.0271	0.0229
Uranus	-86230-12-12 04:18 J	-29773739.35	-29773739.32	-29773739.28	0.0132	0.0130
Jupiter	-86225-09-30 19:39 J	-29771984.92	-29771984.68	-29771984.43	0.0516	0.0020
Uranus	-86222-01-07 14:23 J	-29771155.94	-29771155.90	-29771155.81	0.0134	0.0129
Uranus	-86220-01-14 21:06 J	-29770417.70	-29770417.62	-29770417.50	0.0135	0.0125
Uranus	-86219-01-19 03:06 J	-29770048.43	-29770048.37	-29770048.29	0.0136	0.0129
Jupiter	-86219-03-25 11:59 J	-29769983.22	-29769983.00	-29769982.77	0.0513	0.0044
Saturn	-86219-07-14 01:11 J	-29769872.59	-29769872.45	-29769872.28	0.0284	0.0223
Uranus	-86218-01-23 05:59 J	-29769679.35	-29769679.25	-29769679.12	0.0136	0.0122
Saturn	-86218-07-28 17:01 J	-29769493.03	-29769492.79	-29769492.55	0.0286	0.0082
Uranus	-86217-01-27 12:42 J	-29769310.09	-29769309.97	-29769309.83	0.0137	0.0114
Saturn	-86217-08-11 10:18 J	-29769113.32	-29769113.07	-29769112.81	0.0287	0.0066
Uranus	-86216-01-30 16:47 J	-29768940.92	-29768940.80	-29768940.64	0.0137	0.0115
Saturn	-86216-08-26 03:49 J	-29768733.51	-29768733.34	-29768733.15	0.0288	0.0212
Uranus	-86215-02-04 00:13 J	-29768571.64	-29768571.49	-29768571.30	0.0138	0.0097
Uranus	-86214-02-08 06:27 J	-29768202.38	-29768202.23	-29768202.04	0.0138	0.0103

Uranus -86213-02-12 15:35 J -29767833.03 -29767832.85 -29767832.65 0.0139 0.0083
 Jupiter -86213-10-06 00:42 J -29767596.66 -29767596.47 -29767596.28 0.0518 0.0294
 Uranus -86212-02-16 00:27 J -29767463.68 -29767463.48 -29767463.28 0.0140 0.0083
 Uranus -86211-02-20 10:47 J -29767094.25 -29767094.05 -29767093.84 0.0140 0.0072
 Uranus -86210-02-24 22:32 J -29766724.78 -29766724.56 -29766724.32 0.0141 0.0057
 Uranus -86209-02-29 10:32 J -29766355.27 -29766355.06 -29766354.84 0.0142 0.0056
 Uranus -86208-03-05 02:08 J -29765985.66 -29765985.41 -29765985.16 0.0142 0.0032
 Uranus -86207-03-09 15:06 J -29765616.10 -29765615.87 -29765615.64 0.0143 0.0034
 Jupiter -86207-03-30 03:49 J -29765595.56 -29765595.34 -29765595.13 0.0510 0.0186
 Uranus -86206-03-14 10:03 J -29765246.33 -29765246.08 -29765245.83 0.0143 0.0013
 Saturn -86205-01-07 21:06 J -29764946.69 -29764946.62 -29764946.54 0.0277 0.0262
 Uranus -86205-03-17 23:44 J -29764876.75 -29764876.51 -29764876.26 0.0144 0.0005
 Saturn -86204-01-18 16:03 J -29764570.04 -29764569.83 -29764569.62 0.0275 0.0136
 Uranus -86204-03-22 22:18 J -29764506.82 -29764506.57 -29764506.31 0.0144 0.0005
 Saturn -86203-01-30 07:11 J -29764193.43 -29764193.20 -29764192.96 0.0274 0.0021
 Uranus -86203-03-27 12:56 J -29764137.20 -29764136.96 -29764136.72 0.0145 0.0029
 Saturn -86202-02-11 02:08 J -29763816.63 -29763816.41 -29763816.19 0.0272 0.0084
 Uranus -86202-04-01 15:20 J -29763767.10 -29763766.86 -29763766.60 0.0145 0.0027
 Saturn -86201-02-22 19:11 J -29763439.87 -29763439.70 -29763439.52 0.0272 0.0186
 Uranus -86201-04-05 06:56 J -29763397.42 -29763397.21 -29763396.96 0.0146 0.0053
 Mars -86201-12-27 10:32 J -29763131.22 -29763131.06 -29763130.91 0.1883 0.1034
 Uranus -86200-04-10 13:25 J -29763027.17 -29763026.94 -29763026.71 0.0146 0.0057
 Uranus -86199-04-15 06:42 J -29762657.43 -29762657.22 -29762656.98 0.0147 0.0069
 Neptune -86199-09-24 02:23 J -29762495.51 -29762495.40 -29762495.24 0.0088 0.0076
 Uranus -86198-04-20 15:35 J -29762287.04 -29762286.85 -29762286.64 0.0147 0.0090
 Neptune -86198-09-26 09:06 J -29762128.32 -29762128.12 -29762127.89 0.0088 0.0050
 Uranus -86197-04-24 11:44 J -29761917.21 -29761917.01 -29761916.80 0.0147 0.0087
 Neptune -86197-09-28 04:32 J -29761760.56 -29761760.31 -29761760.03 0.0088 0.0024
 Uranus -86196-04-29 21:35 J -29761546.74 -29761546.60 -29761546.43 0.0147 0.0113
 Neptune -86196-09-30 13:54 J -29761393.17 -29761392.92 -29761392.66 0.0088 0.0003

Jupiter -86195-04-03 06:27 J -29761208.34 -29761208.23 -29761208.11 0.0508 0.0436
 Uranus -86195-05-04 20:51 J -29761176.78 -29761176.63 -29761176.45 0.0147 0.0113
 Neptune -86195-10-03 05:15 J -29761025.53 -29761025.28 -29761025.02 0.0088 0.0029
 Uranus -86194-05-10 06:42 J -29760806.33 -29760806.22 -29760806.06 0.0147 0.0123
 Neptune -86194-10-05 18:27 J -29760657.91 -29760657.73 -29760657.51 0.0088 0.0055
 Uranus -86193-05-14 10:32 J -29760436.13 -29760436.06 -29760435.97 0.0147 0.0140
 Neptune -86193-10-07 04:18 J -29760290.39 -29760290.32 -29760290.18 0.0088 0.0082
 Uranus -86192-05-19 18:56 J -29760065.80 -29760065.71 -29760065.60 0.0147 0.0135
 Saturn -86190-07-08 07:11 J -29759286.24 -29759286.20 -29759286.12 0.0283 0.0275
 Saturn -86189-07-21 17:30 J -29758906.99 -29758906.77 -29758906.55 0.0285 0.0140
 Saturn -86188-08-05 11:44 J -29758527.25 -29758527.01 -29758526.76 0.0287 0.0007
 Saturn -86187-08-20 10:47 J -29758147.25 -29758147.05 -29758146.84 0.0288 0.0156
 Pluto -86186-12-31 04:32 J -29757649.40 -29757649.31 -29757649.20 0.0078 0.0072
 Uranus -86180-07-19 16:47 J -29755621.80 -29755621.80 -29755621.77 0.0143 0.0143
 Uranus -86179-07-24 22:03 J -29755251.69 -29755251.58 -29755251.46 0.0142 0.0126
 Uranus -86178-07-30 04:03 J -29754881.40 -29754881.33 -29754881.20 0.0142 0.0131
 Uranus -86177-08-03 04:32 J -29754511.47 -29754511.31 -29754511.16 0.0141 0.0111
 Uranus -86176-08-08 11:15 J -29754141.19 -29754141.03 -29754140.83 0.0141 0.0105
 Saturn -86175-01-14 01:11 J -29753982.60 -29753982.45 -29753982.27 0.0275 0.0191
 Mars -86175-06-22 18:42 J -29753822.93 -29753822.72 -29753822.52 0.1652 0.0320
 Uranus -86175-08-13 06:27 J -29753771.40 -29753771.23 -29753771.04 0.0140 0.0100
 Saturn -86174-01-26 00:56 J -29753605.69 -29753605.46 -29753605.23 0.0273 0.0070
 Uranus -86174-08-18 12:56 J -29753401.17 -29753400.96 -29753400.74 0.0139 0.0079
 Saturn -86173-02-06 14:08 J -29753229.16 -29753228.91 -29753228.67 0.0272 0.0039
 Uranus -86173-08-22 04:32 J -29753031.52 -29753031.31 -29753031.10 0.0139 0.0083
 Saturn -86172-02-16 23:30 J -29752852.72 -29752852.52 -29752852.31 0.0271 0.0139
 Uranus -86172-08-27 09:20 J -29752661.34 -29752661.11 -29752660.87 0.0138 0.0060
 Saturn -86171-02-28 15:20 J -29752475.94 -29752475.86 -29752475.75 0.0271 0.0247
 Uranus -86171-08-31 22:32 J -29752291.80 -29752291.56 -29752291.32 0.0138 0.0055
 Uranus -86170-09-06 00:56 J -29751921.69 -29751921.46 -29751921.21 0.0137 0.0046

Uranus	-86169-09-09 12:27 J	-29751552.23	-29751551.98	-29751551.71	0.0136	0.0026
Uranus	-86168-09-14 11:59 J	-29751182.24	-29751182.00	-29751181.74	0.0136	0.0029
Uranus	-86167-09-18 22:03 J	-29750812.84	-29750812.58	-29750812.31	0.0135	0.0005
Uranus	-86166-09-23 18:13 J	-29750442.99	-29750442.74	-29750442.48	0.0135	0.0004
Uranus	-86165-09-27 02:51 J	-29750073.64	-29750073.38	-29750073.11	0.0134	0.0013
Uranus	-86164-10-01 19:54 J	-29749703.91	-29749703.67	-29749703.42	0.0134	0.0025
Uranus	-86163-10-06 03:20 J	-29749334.62	-29749334.36	-29749334.09	0.0133	0.0026
Uranus	-86162-10-10 17:15 J	-29748965.00	-29748964.78	-29748964.54	0.0133	0.0047
Uranus	-86161-10-13 23:59 J	-29748595.75	-29748595.50	-29748595.24	0.0133	0.0043
Saturn	-86160-07-15 20:08 J	-29748320.83	-29748320.66	-29748320.48	0.0284	0.0201
Uranus	-86160-10-18 11:15 J	-29748226.24	-29748226.03	-29748225.81	0.0132	0.0064
Saturn	-86159-07-30 08:23 J	-29747941.40	-29747941.15	-29747940.89	0.0286	0.0059
Uranus	-86159-10-22 16:18 J	-29747857.03	-29747856.82	-29747856.57	0.0132	0.0066
Saturn	-86158-08-13 23:15 J	-29747561.78	-29747561.53	-29747561.28	0.0287	0.0088
Uranus	-86158-10-27 01:11 J	-29747487.63	-29747487.45	-29747487.23	0.0132	0.0076
Saturn	-86157-08-27 17:15 J	-29747181.92	-29747181.78	-29747181.62	0.0288	0.0233
Uranus	-86157-10-30 05:30 J	-29747118.46	-29747118.27	-29747118.06	0.0132	0.0086
Uranus	-86156-11-03 12:27 J	-29746749.15	-29746748.98	-29746748.78	0.0132	0.0085
Uranus	-86155-11-07 15:20 J	-29746380.01	-29746379.86	-29746379.69	0.0131	0.0103
Jupiter	-86154-09-25 21:49 J	-29746057.77	-29746057.59	-29746057.40	0.0513	0.0339
Uranus	-86154-11-11 20:51 J	-29746010.78	-29746010.63	-29746010.45	0.0131	0.0097
Uranus	-86153-11-14 23:30 J	-29745641.64	-29745641.52	-29745641.39	0.0131	0.0115
Uranus	-86152-11-19 03:35 J	-29745272.45	-29745272.35	-29745272.20	0.0131	0.0113
Uranus	-86151-11-23 05:15 J	-29744903.36	-29744903.28	-29744903.15	0.0131	0.0121
Uranus	-86150-11-27 09:20 J	-29744534.16	-29744534.11	-29744534.01	0.0131	0.0126
Uranus	-86149-11-30 10:03 J	-29744165.15	-29744165.08	-29744164.97	0.0131	0.0123
Jupiter	-86148-03-19 23:44 J	-29744055.66	-29744055.51	-29744055.35	0.0515	0.0373
Uranus	-86147-12-08 12:42 J	-29743427.01	-29743426.97	-29743426.87	0.0132	0.0127
Saturn	-86146-01-09 02:37 J	-29743395.50	-29743395.39	-29743395.26	0.0276	0.0242
Saturn	-86145-01-20 20:51 J	-29743018.84	-29743018.63	-29743018.41	0.0275	0.0118

Uranus -86145-12-15 15:20 J -29742688.88 -29742688.86 -29742688.81 0.0132 0.0130
 Saturn -86144-01-31 17:30 J -29742642.00 -29742641.77 -29742641.53 0.0273 0.0008
 Saturn -86143-02-12 12:27 J -29742265.20 -29742264.98 -29742264.76 0.0272 0.0100
 Saturn -86142-02-23 23:15 J -29741888.68 -29741888.53 -29741888.35 0.0272 0.0203
 Jupiter -86142-10-01 01:39 J -29741669.66 -29741669.43 -29741669.20 0.0515 0.0022
 Uranus -86139-01-04 02:37 J -29740843.43 -29740843.39 -29740843.32 0.0134 0.0130
 Uranus -86137-01-12 08:23 J -29740105.24 -29740105.15 -29740105.05 0.0135 0.0123
 Uranus -86136-01-15 08:37 J -29739736.18 -29739736.14 -29739736.06 0.0135 0.0131
 Jupiter -86136-03-24 18:27 J -29739667.96 -29739667.73 -29739667.50 0.0513 0.0096
 Uranus -86135-01-19 14:51 J -29739366.97 -29739366.88 -29739366.75 0.0136 0.0120
 Uranus -86134-01-23 17:01 J -29738997.92 -29738997.79 -29738997.67 0.0136 0.0118
 Uranus -86133-01-28 00:13 J -29738628.60 -29738628.49 -29738628.35 0.0137 0.0115
 Uranus -86132-01-31 03:20 J -29738259.51 -29738259.36 -29738259.17 0.0137 0.0100
 Uranus -86131-02-04 12:27 J -29737890.12 -29737889.98 -29737889.81 0.0138 0.0105
 Saturn -86131-07-09 20:51 J -29737734.72 -29737734.63 -29737734.52 0.0284 0.0257
 Uranus -86130-02-08 17:59 J -29737520.95 -29737520.75 -29737520.54 0.0138 0.0084
 Saturn -86130-07-24 11:01 J -29737355.25 -29737355.04 -29737354.81 0.0286 0.0121
 Jupiter -86130-10-05 22:03 J -29737281.80 -29737281.58 -29737281.36 0.0517 0.0230
 Uranus -86129-02-13 04:03 J -29737151.50 -29737151.33 -29737151.13 0.0139 0.0089
 Saturn -86129-08-07 07:39 J -29736975.42 -29736975.18 -29736974.94 0.0287 0.0028
 Uranus -86128-02-16 11:30 J -29736782.22 -29736782.02 -29736781.78 0.0140 0.0072
 Mars -86128-06-15 21:35 J -29736662.76 -29736662.60 -29736662.43 0.1636 0.0972
 Saturn -86128-08-22 05:59 J -29736595.43 -29736595.25 -29736595.04 0.0288 0.0176
 Uranus -86127-02-20 23:30 J -29736412.73 -29736412.52 -29736412.31 0.0140 0.0066
 Uranus -86126-02-25 09:35 J -29736043.32 -29736043.10 -29736042.86 0.0141 0.0058
 Uranus -86125-02-29 22:32 J -29735673.78 -29735673.56 -29735673.32 0.0141 0.0039
 Uranus -86124-03-05 12:13 J -29735304.23 -29735303.99 -29735303.74 0.0142 0.0040
 Jupiter -86124-03-28 22:47 J -29735280.77 -29735280.55 -29735280.33 0.0512 0.0144
 Uranus -86123-03-10 02:23 J -29734934.64 -29734934.40 -29734934.16 0.0143 0.0016
 Uranus -86122-03-14 19:54 J -29734564.92 -29734564.67 -29734564.41 0.0143 0.0015

Mars -86122-12-31 16:03 J -29734272.86 -29734272.83 -29734272.80 0.1877 0.1846
 Uranus -86121-03-18 10:47 J -29734195.29 -29734195.05 -29734194.81 0.0144 0.0002
 Uranus -86120-03-23 08:23 J -29733825.40 -29733825.15 -29733824.89 0.0144 0.0018
 Uranus -86119-03-28 00:13 J -29733455.73 -29733455.49 -29733455.25 0.0145 0.0020
 Uranus -86118-04-02 01:39 J -29733085.67 -29733085.43 -29733085.18 0.0145 0.0046
 Jupiter -86118-10-10 16:03 J -29732893.85 -29732893.83 -29732893.81 0.0519 0.0515
 Uranus -86117-04-05 17:59 J -29732715.97 -29732715.75 -29732715.51 0.0146 0.0045
 Saturn -86116-01-15 13:54 J -29732431.10 -29732430.92 -29732430.73 0.0275 0.0170
 Neptune -86116-03-19 22:03 J -29732367.70 -29732367.58 -29732367.44 0.0089 0.0075
 Uranus -86116-04-10 23:15 J -29732345.75 -29732345.53 -29732345.29 0.0146 0.0064
 Saturn -86115-01-27 07:11 J -29732054.44 -29732054.20 -29732053.96 0.0273 0.0053
 Neptune -86115-03-22 04:03 J -29732000.55 -29732000.33 -29732000.09 0.0089 0.0042
 Uranus -86115-04-15 16:47 J -29731976.00 -29731975.80 -29731975.58 0.0147 0.0077
 Saturn -86114-02-07 17:59 J -29731677.98 -29731677.75 -29731677.51 0.0272 0.0053
 Neptune -86114-03-24 19:25 J -29731632.92 -29731632.69 -29731632.44 0.0089 0.0023
 Uranus -86114-04-21 01:25 J -29731605.65 -29731605.44 -29731605.23 0.0147 0.0080
 Saturn -86113-02-19 09:20 J -29731301.30 -29731301.11 -29731300.92 0.0271 0.0156
 Neptune -86113-03-25 22:47 J -29731265.79 -29731265.55 -29731265.29 0.0089 0.0010
 Uranus -86113-04-24 20:37 J -29731235.80 -29731235.64 -29731235.45 0.0147 0.0106
 Saturn -86112-03-02 02:51 J -29730924.43 -29730924.38 -29730924.31 0.0270 0.0262
 Neptune -86112-03-28 15:49 J -29730898.07 -29730897.84 -29730897.59 0.0089 0.0028
 Jupiter -86112-04-02 17:59 J -29730892.87 -29730892.75 -29730892.61 0.0509 0.0412
 Uranus -86112-04-30 07:11 J -29730865.36 -29730865.20 -29730865.00 0.0147 0.0103
 Neptune -86111-03-30 19:39 J -29730530.84 -29730530.68 -29730530.48 0.0089 0.0061
 Uranus -86111-05-05 06:27 J -29730495.38 -29730495.23 -29730495.08 0.0147 0.0120
 Neptune -86110-04-02 11:15 J -29730163.15 -29730163.03 -29730162.91 0.0089 0.0079
 Uranus -86110-05-10 17:15 J -29730124.89 -29730124.78 -29730124.65 0.0147 0.0129
 Uranus -86109-05-14 19:39 J -29729754.80 -29729754.68 -29729754.54 0.0147 0.0128
 Uranus -86107-05-25 11:44 J -29729014.06 -29729014.01 -29729013.93 0.0147 0.0143
 Saturn -86101-07-17 08:37 J -29726769.33 -29726769.14 -29726768.93 0.0285 0.0180

Saturn -86100-07-31 20:23 J -29726389.90 -29726389.65 -29726389.39 0.0286 0.0039
 Uranus -86099-07-05 07:54 J -29726051.18 -29726051.17 -29726051.13 0.0145 0.0144
 Saturn -86099-08-15 13:39 J -29726010.16 -29726009.93 -29726009.69 0.0287 0.0110
 Saturn -86098-08-30 11:44 J -29725630.12 -29725630.01 -29725629.89 0.0288 0.0254
 Uranus -86097-07-14 20:23 J -29725310.69 -29725310.65 -29725310.58 0.0144 0.0140
 Mars -86096-06-25 13:11 J -29724965.03 -29724964.95 -29724964.87 0.1657 0.1528
 Uranus -86096-07-19 23:30 J -29724940.61 -29724940.52 -29724940.40 0.0143 0.0131
 Uranus -86095-07-25 05:30 J -29724570.33 -29724570.27 -29724570.16 0.0142 0.0135
 Uranus -86094-07-30 10:32 J -29724200.22 -29724200.06 -29724199.89 0.0142 0.0111
 Uranus -86093-08-03 11:30 J -29723830.15 -29723830.02 -29723829.85 0.0141 0.0114
 Uranus -86092-08-08 17:44 J -29723459.95 -29723459.76 -29723459.57 0.0141 0.0099
 Uranus -86091-08-13 13:54 J -29723090.11 -29723089.92 -29723089.71 0.0140 0.0086
 Uranus -86090-08-18 19:39 J -29722719.87 -29722719.68 -29722719.46 0.0139 0.0088
 Uranus -86089-08-22 12:13 J -29722350.21 -29722349.99 -29722349.75 0.0139 0.0063
 Uranus -86088-08-27 17:01 J -29721980.02 -29721979.79 -29721979.55 0.0138 0.0064
 Saturn -86087-01-10 06:42 J -29721844.36 -29721844.22 -29721844.07 0.0276 0.0221
 Uranus -86087-09-01 05:59 J -29721610.48 -29721610.25 -29721609.99 0.0138 0.0047
 Saturn -86086-01-22 05:59 J -29721467.46 -29721467.25 -29721467.03 0.0274 0.0102
 Uranus -86086-09-06 08:37 J -29721240.38 -29721240.14 -29721239.87 0.0137 0.0035
 Saturn -86085-02-03 04:18 J -29721090.55 -29721090.32 -29721090.08 0.0273 0.0009
 Uranus -86085-09-09 19:54 J -29720870.92 -29720870.67 -29720870.41 0.0136 0.0032
 Saturn -86084-02-13 17:44 J -29720713.98 -29720713.76 -29720713.53 0.0272 0.0113
 Uranus -86084-09-14 20:23 J -29720500.91 -29720500.65 -29720500.40 0.0136 0.0009
 Saturn -86083-02-25 01:54 J -29720337.55 -29720337.42 -29720337.26 0.0271 0.0217
 Uranus -86083-09-19 05:30 J -29720131.53 -29720131.27 -29720131.00 0.0135 0.0013
 Uranus -86082-09-24 03:06 J -29719761.63 -29719761.37 -29719761.12 0.0135 0.0010
 Uranus -86081-09-27 11:15 J -29719392.29 -29719392.03 -29719391.77 0.0134 0.0015
 Uranus -86080-10-02 05:30 J -29719022.52 -29719022.27 -29719022.02 0.0134 0.0024
 Uranus -86079-10-06 11:44 J -29718653.25 -29718653.01 -29718652.75 0.0134 0.0041
 Uranus -86078-10-11 02:51 J -29718283.62 -29718283.38 -29718283.13 0.0133 0.0038

Uranus	-86077-10-14 07:54 J	-29717914.40	-29717914.17	-29717913.92	0.0133	0.0060
Uranus	-86076-10-18 20:08 J	-29717544.87	-29717544.66	-29717544.42	0.0133	0.0058
Uranus	-86075-10-22 23:59 J	-29717175.71	-29717175.50	-29717175.27	0.0132	0.0074
Mars	-86075-12-20 23:30 J	-29717116.62	-29717116.52	-29717116.41	0.1904	0.1646
Uranus	-86074-10-27 10:18 J	-29716806.25	-29716806.07	-29716805.85	0.0132	0.0079
Uranus	-86073-10-30 13:39 J	-29716437.12	-29716436.93	-29716436.71	0.0132	0.0083
Saturn	-86072-07-11 14:23 J	-29716183.04	-29716182.90	-29716182.77	0.0284	0.0237
Uranus	-86072-11-03 22:03 J	-29716067.72	-29716067.58	-29716067.39	0.0132	0.0098
Saturn	-86071-07-26 05:59 J	-29715803.48	-29715803.25	-29715803.02	0.0286	0.0101
Jupiter	-86071-09-25 00:13 J	-29715742.64	-29715742.49	-29715742.33	0.0512	0.0381
Uranus	-86071-11-08 00:27 J	-29715698.65	-29715698.48	-29715698.28	0.0131	0.0092
Saturn	-86070-08-10 00:56 J	-29715423.71	-29715423.46	-29715423.21	0.0287	0.0047
Uranus	-86070-11-12 07:39 J	-29715329.28	-29715329.18	-29715329.03	0.0131	0.0113
Saturn	-86069-08-23 20:08 J	-29715043.84	-29715043.66	-29715043.46	0.0288	0.0195
Uranus	-86069-11-15 08:51 J	-29714960.26	-29714960.13	-29714959.95	0.0131	0.0106
Uranus	-86068-11-19 14:51 J	-29714590.95	-29714590.88	-29714590.76	0.0131	0.0121
Uranus	-86067-11-23 14:37 J	-29714221.97	-29714221.89	-29714221.75	0.0131	0.0119
Uranus	-86066-11-27 19:54 J	-29713852.73	-29713852.67	-29713852.56	0.0131	0.0123
Jupiter	-86065-03-19 08:37 J	-29713740.27	-29713740.14	-29713739.99	0.0517	0.0409
Uranus	-86065-11-30 19:25 J	-29713483.72	-29713483.69	-29713483.64	0.0131	0.0130
Uranus	-86064-12-04 23:44 J	-29713114.56	-29713114.51	-29713114.41	0.0132	0.0125
Uranus	-86062-12-13 03:20 J	-29712376.40	-29712376.36	-29712376.28	0.0132	0.0128
Uranus	-86060-12-20 06:42 J	-29711638.23	-29711638.22	-29711638.18	0.0132	0.0132
Jupiter	-86059-09-29 21:06 J	-29711354.87	-29711354.62	-29711354.38	0.0514	0.0076
Saturn	-86058-01-05 22:32 J	-29711256.59	-29711256.56	-29711256.52	0.0276	0.0273
Saturn	-86057-01-17 21:20 J	-29710879.81	-29710879.61	-29710879.41	0.0275	0.0151
Uranus	-86057-12-31 08:08 J	-29710531.19	-29710531.16	-29710531.09	0.0133	0.0130
Saturn	-86056-01-28 10:32 J	-29710503.30	-29710503.06	-29710502.82	0.0273	0.0038
Saturn	-86055-02-09 02:08 J	-29710126.63	-29710126.41	-29710126.18	0.0272	0.0067
Uranus	-86054-01-08 12:56 J	-29709793.04	-29709792.96	-29709792.84	0.0134	0.0122

Saturn -86054-02-20 19:54 J -29709749.84 -29709749.67 -29709749.48 0.0271 0.0170
 Uranus -86053-01-12 19:39 J -29709423.69 -29709423.68 -29709423.61 0.0135 0.0133
 Jupiter -86053-03-23 15:20 J -29709353.08 -29709352.86 -29709352.63 0.0515 0.0132
 Uranus -86052-01-15 19:25 J -29709054.79 -29709054.69 -29709054.54 0.0135 0.0116
 Uranus -86051-01-20 03:20 J -29708685.44 -29708685.36 -29708685.23 0.0136 0.0122
 Uranus -86050-01-24 04:03 J -29708316.45 -29708316.33 -29708316.16 0.0136 0.0112
 Uranus -86049-01-28 12:56 J -29707947.10 -29707946.96 -29707946.79 0.0137 0.0105
 Mars -86049-06-18 11:15 J -29707805.21 -29707805.03 -29707804.85 0.1640 0.0673
 Uranus -86048-01-31 15:06 J -29707578.02 -29707577.87 -29707577.70 0.0137 0.0104
 Uranus -86047-02-05 00:42 J -29707208.64 -29707208.47 -29707208.27 0.0138 0.0087
 Jupiter -86047-10-04 16:03 J -29706967.04 -29706966.83 -29706966.61 0.0516 0.0178
 Uranus -86046-02-09 04:32 J -29706839.48 -29706839.31 -29706839.10 0.0138 0.0093
 Uranus -86045-02-13 16:03 J -29706470.02 -29706469.83 -29706469.61 0.0139 0.0072
 Uranus -86044-02-16 22:32 J -29706100.77 -29706100.56 -29706100.34 0.0140 0.0073
 Uranus -86043-02-21 11:30 J -29705731.23 -29705731.02 -29705730.80 0.0140 0.0059
 Uranus -86042-02-25 21:06 J -29705361.85 -29705361.62 -29705361.37 0.0141 0.0046
 Saturn -86042-07-19 18:27 J -29705217.94 -29705217.73 -29705217.51 0.0285 0.0162
 Uranus -86041-03-01 11:30 J -29704992.24 -29704992.02 -29704991.79 0.0141 0.0044
 Jupiter -86041-03-28 11:44 J -29704965.23 -29704965.01 -29704964.80 0.0512 0.0108
 Saturn -86041-08-02 09:35 J -29704838.35 -29704838.10 -29704837.85 0.0287 0.0019
 Uranus -86040-03-06 00:13 J -29704622.74 -29704622.49 -29704622.23 0.0142 0.0020
 Saturn -86040-08-17 06:56 J -29704458.43 -29704458.21 -29704457.99 0.0288 0.0131
 Uranus -86039-03-10 15:06 J -29704253.10 -29704252.87 -29704252.62 0.0143 0.0024
 Saturn -86039-09-01 06:42 J -29704078.28 -29704078.22 -29704078.14 0.0288 0.0274
 Uranus -86038-03-15 07:25 J -29703883.45 -29703883.19 -29703882.93 0.0143 0.0001
 Uranus -86037-03-18 23:15 J -29703513.77 -29703513.53 -29703513.29 0.0144 0.0007
 Uranus -86036-03-23 19:11 J -29703143.96 -29703143.70 -29703143.45 0.0144 0.0016
 Uranus -86035-03-28 11:30 J -29702774.25 -29702774.02 -29702773.78 0.0145 0.0038
 Neptune -86035-09-23 04:03 J -29702595.41 -29702595.33 -29702595.24 0.0088 0.0083
 Jupiter -86035-10-10 00:56 J -29702578.54 -29702578.46 -29702578.35 0.0519 0.0477

Uranus -86034-04-02 11:44 J -29702404.25 -29702404.01 -29702403.75 0.0145 0.0036
 Neptune -86034-09-25 22:32 J -29702227.72 -29702227.56 -29702227.36 0.0088 0.0066
 Uranus -86033-04-06 05:01 J -29702034.51 -29702034.29 -29702034.07 0.0146 0.0061
 Neptune -86033-09-27 09:20 J -29701860.34 -29701860.11 -29701859.86 0.0088 0.0031
 Uranus -86032-04-11 09:20 J -29701664.32 -29701664.11 -29701663.86 0.0146 0.0065
 Neptune -86032-09-29 23:15 J -29701492.80 -29701492.53 -29701492.25 0.0088 0.0013
 Uranus -86031-04-16 03:49 J -29701294.54 -29701294.34 -29701294.12 0.0146 0.0077
 Neptune -86031-10-02 13:54 J -29701125.16 -29701124.92 -29701124.66 0.0088 0.0022
 Uranus -86030-04-21 11:44 J -29700924.18 -29700924.01 -29700923.80 0.0147 0.0097
 Neptune -86030-10-04 23:01 J -29700757.76 -29700757.54 -29700757.28 0.0088 0.0038
 Jupiter -86029-04-01 17:44 J -29700577.91 -29700577.76 -29700577.59 0.0509 0.0374
 Uranus -86029-04-25 07:39 J -29700554.36 -29700554.18 -29700553.97 0.0147 0.0093
 Neptune -86029-10-06 18:13 J -29700389.88 -29700389.74 -29700389.59 0.0088 0.0073
 Saturn -86028-01-11 15:06 J -29700293.02 -29700292.87 -29700292.70 0.0276 0.0204
 Uranus -86028-04-30 18:27 J -29700183.87 -29700183.73 -29700183.57 0.0147 0.0117
 Saturn -86027-01-23 16:47 J -29699916.02 -29699915.80 -29699915.58 0.0274 0.0085
 Uranus -86027-05-05 15:49 J -29699813.98 -29699813.84 -29699813.66 0.0147 0.0116
 Saturn -86026-02-04 09:35 J -29699539.34 -29699539.10 -29699538.85 0.0273 0.0023
 Uranus -86026-05-11 03:35 J -29699443.47 -29699443.35 -29699443.21 0.0147 0.0126
 Saturn -86025-02-15 18:42 J -29699162.93 -29699162.72 -29699162.50 0.0272 0.0124
 Uranus -86025-05-15 04:18 J -29699073.37 -29699073.32 -29699073.23 0.0147 0.0141
 Pluto -86025-06-28 04:32 J -29699029.53 -29699029.31 -29699029.05 0.0067 0.0026
 Saturn -86024-02-26 07:39 J -29698786.29 -29698786.18 -29698786.05 0.0271 0.0231
 Uranus -86024-05-20 14:51 J -29698702.95 -29698702.88 -29698702.76 0.0147 0.0136
 Uranus -86014-07-10 17:44 J -29694999.83 -29694999.76 -29694999.66 0.0144 0.0135
 Saturn -86013-07-13 04:18 J -29694631.46 -29694631.32 -29694631.15 0.0284 0.0220
 Uranus -86013-07-15 05:59 J -29694629.29 -29694629.25 -29694629.17 0.0143 0.0139
 Uranus -86012-07-20 08:08 J -29694259.25 -29694259.16 -29694259.05 0.0143 0.0132
 Saturn -86012-07-27 17:59 J -29694251.99 -29694251.75 -29694251.50 0.0286 0.0082
 Uranus -86011-07-25 15:35 J -29693888.97 -29693888.85 -29693888.68 0.0142 0.0117

Saturn	-86011-08-11 10:03 J	-29693872.33	-29693872.08	-29693871.82	0.0287	0.0066
Uranus	-86010-07-30 19:11 J	-29693518.83	-29693518.70	-29693518.54	0.0142	0.0120
Saturn	-86010-08-26 04:32 J	-29693492.48	-29693492.31	-29693492.13	0.0288	0.0211
Uranus	-86009-08-03 21:35 J	-29693148.76	-29693148.60	-29693148.40	0.0141	0.0099
Uranus	-86008-08-09 01:54 J	-29692778.60	-29692778.42	-29692778.20	0.0141	0.0095
Uranus	-86007-08-13 23:15 J	-29692408.71	-29692408.53	-29692408.32	0.0140	0.0088
Uranus	-86006-08-19 03:49 J	-29692038.56	-29692038.34	-29692038.09	0.0139	0.0069
Uranus	-86005-08-22 21:06 J	-29691668.83	-29691668.62	-29691668.39	0.0139	0.0072
Uranus	-86004-08-28 01:11 J	-29691298.68	-29691298.45	-29691298.18	0.0138	0.0049
Uranus	-86003-09-01 15:06 J	-29690929.11	-29690928.87	-29690928.62	0.0138	0.0044
Uranus	-86002-09-06 18:13 J	-29690558.99	-29690558.74	-29690558.48	0.0137	0.0033
Uranus	-86001-09-10 05:30 J	-29690189.53	-29690189.27	-29690189.01	0.0136	0.0016

86TH MILLENNIUM BCE

This is a list of transits of Moon in the 86th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-86000-09-15 05:59 J	-29689819.50	-29689819.25	-29689818.99	0.0136	0.0018		
Saturn	-85999-01-07 05:15 J	-29689705.36	-29689705.28	-29689705.17	0.0276	0.0253		
Uranus	-85999-09-19 15:06 J	-29689450.13	-29689449.87	-29689449.61	0.0135	0.0007		
Saturn	-85998-01-18 23:30 J	-29689328.73	-29689328.52	-29689328.30	0.0274	0.0132		
Uranus	-85998-09-24 12:42 J	-29689080.22	-29689079.97	-29689079.71	0.0135	0.0007		
Saturn	-85997-01-30 16:47 J	-29688952.03	-29688951.80	-29688951.57	0.0273	0.0021		
Uranus	-85997-09-27 19:54 J	-29688710.93	-29688710.67	-29688710.41	0.0134	0.0024		

Saturn	-85996-02-10 12:13 J	-29688575.21	-29688574.99	-29688574.76	0.0272	0.0079
Uranus	-85996-10-02 14:51 J	-29688341.13	-29688340.88	-29688340.63	0.0134	0.0033
Mars	-85996-12-24 17:15 J	-29688257.98	-29688257.78	-29688257.59	0.1897	0.0491
Saturn	-85995-02-22 01:54 J	-29688198.59	-29688198.42	-29688198.23	0.0271	0.0182
Uranus	-85995-10-06 20:08 J	-29687971.91	-29687971.66	-29687971.40	0.0134	0.0036
Uranus	-85994-10-11 12:27 J	-29687602.20	-29687601.98	-29687601.74	0.0133	0.0056
Uranus	-85993-10-14 17:15 J	-29687233.03	-29687232.78	-29687232.54	0.0133	0.0050
Uranus	-85992-10-19 06:42 J	-29686863.42	-29686863.22	-29686863.00	0.0133	0.0072
Uranus	-85991-10-23 10:03 J	-29686494.30	-29686494.08	-29686493.86	0.0132	0.0071
Uranus	-85990-10-27 21:35 J	-29686124.79	-29686124.60	-29686124.40	0.0132	0.0083
Uranus	-85989-10-30 23:30 J	-29685755.71	-29685755.52	-29685755.33	0.0132	0.0090
Jupiter	-85988-09-23 21:49 J	-29685427.72	-29685427.59	-29685427.44	0.0511	0.0416
Uranus	-85988-11-04 09:06 J	-29685386.29	-29685386.12	-29685385.93	0.0132	0.0090
Uranus	-85987-11-08 10:03 J	-29685017.23	-29685017.08	-29685016.93	0.0132	0.0107
Uranus	-85986-11-12 18:27 J	-29684647.88	-29684647.73	-29684647.57	0.0131	0.0101
Uranus	-85985-11-15 18:13 J	-29684278.83	-29684278.74	-29684278.61	0.0131	0.0119
Saturn	-85984-07-06 20:23 J	-29684045.72	-29684045.65	-29684045.57	0.0283	0.0271
Uranus	-85984-11-20 01:25 J	-29683909.54	-29683909.44	-29683909.29	0.0131	0.0114
Saturn	-85983-07-21 07:11 J	-29683666.40	-29683666.20	-29683665.98	0.0285	0.0142
Uranus	-85983-11-24 00:42 J	-29683540.54	-29683540.47	-29683540.36	0.0131	0.0122
Jupiter	-85982-03-19 08:08 J	-29683425.28	-29683425.16	-29683425.04	0.0517	0.0439
Saturn	-85982-08-05 01:54 J	-29683286.66	-29683286.42	-29683286.17	0.0287	0.0004
Uranus	-85982-11-28 07:25 J	-29683171.25	-29683171.19	-29683171.11	0.0131	0.0125
Saturn	-85981-08-18 23:59 J	-29682906.70	-29682906.50	-29682906.28	0.0288	0.0149
Uranus	-85981-12-01 05:15 J	-29682802.35	-29682802.28	-29682802.17	0.0131	0.0124
Saturn	-85980-09-02 22:03 J	-29682526.59	-29682526.58	-29682526.56	0.0289	0.0288
Uranus	-85979-12-09 08:37 J	-29682064.21	-29682064.14	-29682064.05	0.0132	0.0125
Uranus	-85977-12-16 11:15 J	-29681326.08	-29681326.03	-29681325.94	0.0132	0.0127
Jupiter	-85976-09-28 20:08 J	-29681039.88	-29681039.66	-29681039.43	0.0514	0.0119
Uranus	-85975-12-24 14:37 J	-29680587.91	-29680587.89	-29680587.83	0.0133	0.0131

Uranus	-85974-12-28 21:20 J	-29680218.62	-29680218.61	-29680218.56	0.0133	0.0132
Uranus	-85971-01-05 02:08 J	-29679480.48	-29679480.41	-29679480.30	0.0134	0.0124
Uranus	-85970-01-08 23:59 J	-29679111.52	-29679111.50	-29679111.43	0.0134	0.0133
Jupiter	-85970-03-24 03:20 J	-29679037.57	-29679037.36	-29679037.15	0.0515	0.0172
Mars	-85970-06-21 15:20 J	-29678948.04	-29678947.86	-29678947.69	0.1643	0.0453
Uranus	-85969-01-13 08:08 J	-29678742.28	-29678742.16	-29678742.03	0.0135	0.0115
Saturn	-85969-01-14 01:39 J	-29678741.59	-29678741.43	-29678741.25	0.0275	0.0186
Uranus	-85968-01-16 06:27 J	-29678373.32	-29678373.23	-29678373.12	0.0135	0.0124
Saturn	-85968-01-24 23:15 J	-29678364.76	-29678364.53	-29678364.30	0.0274	0.0068
Uranus	-85967-01-20 15:06 J	-29678004.01	-29678003.87	-29678003.73	0.0136	0.0110
Saturn	-85967-02-05 10:03 J	-29677988.32	-29677988.08	-29677987.84	0.0273	0.0034
Uranus	-85966-01-24 14:37 J	-29677635.03	-29677634.89	-29677634.74	0.0136	0.0109
Saturn	-85966-02-16 22:18 J	-29677611.76	-29677611.57	-29677611.36	0.0272	0.0137
Uranus	-85965-01-29 00:27 J	-29677265.63	-29677265.48	-29677265.32	0.0137	0.0104
Saturn	-85965-02-28 15:49 J	-29677234.94	-29677234.84	-29677234.74	0.0271	0.0243
Uranus	-85964-02-01 01:25 J	-29676896.61	-29676896.44	-29676896.23	0.0137	0.0091
Jupiter	-85964-10-04 03:06 J	-29676651.60	-29676651.37	-29676651.13	0.0516	0.0140
Uranus	-85963-02-05 12:56 J	-29676527.13	-29676526.96	-29676526.78	0.0138	0.0094
Uranus	-85962-02-09 16:18 J	-29676158.03	-29676157.82	-29676157.60	0.0138	0.0073
Uranus	-85961-02-14 04:32 J	-29675788.49	-29675788.31	-29675788.09	0.0139	0.0079
Uranus	-85960-02-17 10:32 J	-29675419.29	-29675419.06	-29675418.83	0.0140	0.0059
Uranus	-85959-02-22 00:27 J	-29675049.70	-29675049.48	-29675049.26	0.0140	0.0054
Uranus	-85958-02-26 08:23 J	-29674680.38	-29674680.15	-29674679.90	0.0141	0.0045
Jupiter	-85958-03-28 11:01 J	-29674650.28	-29674650.04	-29674649.80	0.0512	0.0063
Uranus	-85957-03-01 23:44 J	-29674310.75	-29674310.51	-29674310.28	0.0141	0.0027
Uranus	-85956-03-06 11:01 J	-29673941.29	-29673941.04	-29673940.79	0.0142	0.0028
Uranus	-85955-03-11 03:20 J	-29673571.60	-29673571.36	-29673571.13	0.0143	0.0005
Uranus	-85954-03-15 18:13 J	-29673201.99	-29673201.74	-29673201.48	0.0143	0.0005
Saturn	-85954-07-15 11:30 J	-29673080.21	-29673080.02	-29673079.84	0.0284	0.0201
Uranus	-85953-03-19 11:30 J	-29672832.26	-29672832.02	-29672831.78	0.0144	0.0014

Saturn -85953-07-28 22:03 J -29672700.83 -29672700.58 -29672700.32 0.0286 0.0064
 Neptune -85952-03-19 05:44 J -29672467.31 -29672467.26 -29672467.15 0.0089 0.0085
 Uranus -85952-03-24 06:42 J -29672462.48 -29672462.22 -29672461.97 0.0144 0.0028
 Saturn -85952-08-12 14:51 J -29672321.13 -29672320.88 -29672320.64 0.0288 0.0082
 Jupiter -85952-10-08 16:47 J -29672263.92 -29672263.80 -29672263.67 0.0518 0.0433
 Neptune -85951-03-21 21:49 J -29672099.79 -29672099.59 -29672099.39 0.0089 0.0054
 Uranus -85951-03-29 00:13 J -29672092.72 -29672092.49 -29672092.25 0.0145 0.0031
 Saturn -85951-08-27 12:27 J -29671941.13 -29671940.98 -29671940.83 0.0289 0.0227
 Neptune -85950-03-24 00:13 J -29671732.70 -29671732.49 -29671732.24 0.0089 0.0035
 Uranus -85950-04-02 23:30 J -29671722.75 -29671722.52 -29671722.28 0.0145 0.0056
 Neptune -85949-03-25 17:01 J -29671365.04 -29671364.79 -29671364.53 0.0089 0.0004
 Uranus -85949-04-06 17:44 J -29671352.99 -29671352.76 -29671352.53 0.0146 0.0053
 Neptune -85948-03-27 20:51 J -29670997.86 -29670997.63 -29670997.38 0.0089 0.0017
 Uranus -85948-04-11 21:06 J -29670982.83 -29670982.62 -29670982.39 0.0146 0.0074
 Neptune -85947-03-30 10:47 J -29670630.26 -29670630.05 -29670629.82 0.0089 0.0047
 Uranus -85947-04-16 15:35 J -29670613.04 -29670612.85 -29670612.63 0.0146 0.0084
 Neptune -85946-04-01 18:42 J -29670262.85 -29670262.72 -29670262.54 0.0089 0.0069
 Jupiter -85946-04-01 22:03 J -29670262.74 -29670262.58 -29670262.42 0.0511 0.0347 *
 Uranus -85946-04-21 23:30 J -29670242.72 -29670242.52 -29670242.31 0.0147 0.0088
 Uranus -85945-04-25 18:56 J -29669872.85 -29669872.71 -29669872.53 0.0147 0.0112
 Uranus -85944-05-01 05:44 J -29669502.42 -29669502.26 -29669502.07 0.0147 0.0106
 Uranus -85943-05-06 03:20 J -29669132.48 -29669132.36 -29669132.21 0.0147 0.0125
 Uranus -85942-05-11 15:06 J -29668761.96 -29668761.87 -29668761.74 0.0147 0.0131
 Uranus -85941-05-15 15:20 J -29668391.97 -29668391.86 -29668391.73 0.0147 0.0130
 Saturn -85940-01-08 06:56 J -29668154.33 -29668154.21 -29668154.07 0.0276 0.0233
 Pluto -85939-01-01 05:44 J -29667796.42 -29667796.26 -29667796.06 0.0078 0.0058
 Saturn -85939-01-20 03:35 J -29667777.56 -29667777.35 -29667777.13 0.0274 0.0115
 Uranus -85939-05-26 06:13 J -29667651.30 -29667651.24 -29667651.15 0.0147 0.0141
 Saturn -85938-02-01 01:25 J -29667400.67 -29667400.44 -29667400.21 0.0273 0.0008
 Saturn -85937-02-12 17:44 J -29667023.98 -29667023.76 -29667023.53 0.0271 0.0091

Saturn -85936-02-23 01:39 J -29666647.59 -29666647.43 -29666647.25 0.0270 0.0193
 Uranus -85931-07-06 02:51 J -29664688.45 -29664688.38 -29664688.27 0.0145 0.0136
 Uranus -85929-07-15 15:49 J -29663947.94 -29663947.84 -29663947.72 0.0143 0.0130
 Uranus -85928-07-20 15:49 J -29663577.95 -29663577.84 -29663577.68 0.0143 0.0123
 Uranus -85927-07-26 00:42 J -29663207.58 -29663207.47 -29663207.33 0.0142 0.0123
 Uranus -85926-07-31 02:23 J -29662837.58 -29662837.40 -29662837.20 0.0142 0.0100
 Saturn -85925-07-08 05:15 J -29662494.37 -29662494.28 -29662494.16 0.0284 0.0255
 Uranus -85925-08-04 06:27 J -29662467.39 -29662467.23 -29662467.05 0.0141 0.0104
 Saturn -85924-07-22 19:39 J -29662114.89 -29662114.68 -29662114.45 0.0286 0.0124
 Uranus -85924-08-09 09:20 J -29662097.31 -29662097.11 -29662096.89 0.0141 0.0087
 Mars -85923-06-14 15:20 J -29661787.88 -29661787.86 -29661787.84 0.1628 0.1616
 Saturn -85923-08-06 14:23 J -29661735.15 -29661734.90 -29661734.65 0.0287 0.0020
 Uranus -85923-08-14 08:23 J -29661727.36 -29661727.15 -29661726.94 0.0140 0.0076
 Uranus -85922-08-19 11:44 J -29661357.22 -29661357.01 -29661356.77 0.0139 0.0076
 Saturn -85922-08-21 10:03 J -29661355.28 -29661355.08 -29661354.86 0.0288 0.0165
 Uranus -85921-08-23 06:13 J -29660987.46 -29660987.24 -29660986.99 0.0139 0.0052
 Uranus -85920-08-28 09:35 J -29660617.34 -29660617.10 -29660616.84 0.0138 0.0053
 Uranus -85919-09-01 23:59 J -29660247.74 -29660247.50 -29660247.24 0.0137 0.0034
 Uranus -85918-09-07 02:23 J -29659877.66 -29659877.40 -29659877.14 0.0137 0.0024
 Uranus -85917-09-10 13:25 J -29659508.19 -29659507.94 -29659507.67 0.0136 0.0021
 Mars -85917-12-27 19:25 J -29659399.83 -29659399.69 -29659399.55 0.1891 0.1235
 Uranus -85916-09-15 14:23 J -29659138.17 -29659137.90 -29659137.64 0.0136 0.0003
 Uranus -85915-09-19 23:01 J -29658768.80 -29658768.54 -29658768.28 0.0135 0.0002
 Uranus -85914-09-24 21:20 J -29658398.86 -29658398.61 -29658398.35 0.0135 0.0022
 Uranus -85913-09-28 04:18 J -29658029.58 -29658029.32 -29658029.06 0.0134 0.0024
 Uranus -85912-10-02 23:44 J -29657659.75 -29657659.51 -29657659.26 0.0134 0.0034
 Uranus -85911-10-07 04:32 J -29657290.55 -29657290.31 -29657290.06 0.0134 0.0049
 Saturn -85910-01-15 07:54 J -29657190.35 -29657190.17 -29657189.97 0.0275 0.0167
 Uranus -85910-10-11 21:35 J -29656920.83 -29656920.60 -29656920.35 0.0133 0.0047
 Saturn -85909-01-26 23:15 J -29656813.77 -29656813.53 -29656813.29 0.0273 0.0055

Uranus	-85909-10-15 00:56 J	-29656551.68	-29656551.46	-29656551.23	0.0133	0.0068
Saturn	-85908-02-06 12:13 J	-29656437.22	-29656436.99	-29656436.76	0.0272	0.0048
Uranus	-85908-10-19 15:20 J	-29656182.07	-29656181.86	-29656181.63	0.0133	0.0065
Saturn	-85907-02-18 05:30 J	-29656060.45	-29656060.27	-29656060.07	0.0271	0.0149
Uranus	-85907-10-23 17:15 J	-29655812.96	-29655812.78	-29655812.55	0.0132	0.0083
Saturn	-85906-03-01 20:08 J	-29655683.73	-29655683.66	-29655683.57	0.0271	0.0254
Uranus	-85906-10-28 06:27 J	-29655443.41	-29655443.23	-29655443.03	0.0132	0.0084
Jupiter	-85905-09-23 01:54 J	-29655112.52	-29655112.42	-29655112.29	0.0511	0.0438
Uranus	-85905-10-31 07:39 J	-29655074.36	-29655074.18	-29655073.98	0.0132	0.0089
Uranus	-85904-11-04 18:42 J	-29654704.86	-29654704.72	-29654704.55	0.0132	0.0102
Uranus	-85903-11-08 18:56 J	-29654335.87	-29654335.71	-29654335.52	0.0132	0.0097
Uranus	-85902-11-13 04:47 J	-29653966.41	-29653966.30	-29653966.18	0.0131	0.0116
Uranus	-85901-11-16 03:06 J	-29653597.50	-29653597.37	-29653597.20	0.0131	0.0108
Uranus	-85900-11-20 11:30 J	-29653228.09	-29653228.02	-29653227.92	0.0131	0.0123
Jupiter	-85899-03-18 20:08 J	-29653109.75	-29653109.66	-29653109.57	0.0518	0.0472
Uranus	-85899-11-24 08:51 J	-29652859.21	-29652859.13	-29652858.99	0.0131	0.0119
Uranus	-85898-11-28 16:32 J	-29652489.87	-29652489.81	-29652489.71	0.0131	0.0124
Uranus	-85897-12-01 13:25 J	-29652120.96	-29652120.94	-29652120.87	0.0132	0.0130
Uranus	-85896-12-05 20:37 J	-29651751.70	-29651751.64	-29651751.54	0.0132	0.0125
Saturn	-85895-07-16 12:27 J	-29651529.18	-29651528.98	-29651528.79	0.0285	0.0186
Saturn	-85894-07-31 01:25 J	-29651149.69	-29651149.44	-29651149.19	0.0286	0.0047
Uranus	-85894-12-14 00:42 J	-29651013.53	-29651013.47	-29651013.38	0.0132	0.0125
Saturn	-85893-08-13 22:18 J	-29650769.79	-29650769.57	-29650769.33	0.0288	0.0100
Jupiter	-85893-09-28 05:15 J	-29650724.51	-29650724.28	-29650724.04	0.0513	0.0149
Saturn	-85892-08-28 23:01 J	-29650389.66	-29650389.54	-29650389.40	0.0289	0.0244
Uranus	-85892-12-21 03:49 J	-29650275.38	-29650275.34	-29650275.25	0.0132	0.0128
Mars	-85891-06-23 15:20 J	-29650091.02	-29650090.86	-29650090.70	0.1647	0.0741
Uranus	-85890-12-29 07:54 J	-29649537.19	-29649537.17	-29649537.12	0.0133	0.0131
Uranus	-85888-01-01 04:32 J	-29649168.38	-29649168.31	-29649168.22	0.0133	0.0126
Uranus	-85887-01-05 12:42 J	-29648799.02	-29648798.97	-29648798.93	0.0134	0.0131

Jupiter -85887-03-23 02:23 J -29648722.62 -29648722.40 -29648722.19 0.0516 0.0215
 Uranus -85886-01-09 09:20 J -29648430.22 -29648430.11 -29648429.96 0.0134 0.0115
 Uranus -85885-01-13 18:13 J -29648060.82 -29648060.74 -29648060.64 0.0135 0.0125
 Uranus -85884-01-16 16:03 J -29647691.97 -29647691.83 -29647691.67 0.0135 0.0107
 Uranus -85883-01-21 01:39 J -29647322.55 -29647322.43 -29647322.29 0.0136 0.0114
 Uranus -85882-01-25 00:27 J -29646953.62 -29646953.48 -29646953.29 0.0136 0.0102
 Saturn -85881-01-10 09:49 J -29646603.23 -29646603.09 -29646602.94 0.0276 0.0216
 Uranus -85881-01-29 11:15 J -29646584.19 -29646584.03 -29646583.84 0.0137 0.0096
 Jupiter -85881-10-02 20:23 J -29646336.88 -29646336.65 -29646336.41 0.0515 0.0102
 Saturn -85880-01-21 11:15 J -29646226.24 -29646226.03 -29646225.81 0.0274 0.0100
 Uranus -85880-02-01 11:15 J -29646215.19 -29646215.03 -29646214.83 0.0137 0.0095
 Saturn -85879-02-02 07:11 J -29645849.44 -29645849.20 -29645848.96 0.0272 0.0008
 Uranus -85879-02-05 23:44 J -29645845.71 -29645845.51 -29645845.31 0.0138 0.0076
 Uranus -85878-02-10 01:54 J -29645476.62 -29645476.42 -29645476.22 0.0138 0.0082
 Saturn -85878-02-13 16:32 J -29645473.03 -29645472.81 -29645472.57 0.0271 0.0104
 Uranus -85877-02-14 15:35 J -29645107.07 -29645106.85 -29645106.64 0.0139 0.0060
 Saturn -85877-02-25 01:25 J -29645096.58 -29645096.44 -29645096.27 0.0270 0.0207
 Uranus -85876-02-17 20:08 J -29644737.88 -29644737.66 -29644737.43 0.0140 0.0062
 Uranus -85875-02-22 11:15 J -29644368.25 -29644368.03 -29644367.80 0.0140 0.0046
 Jupiter -85875-03-27 17:15 J -29644335.00 -29644334.78 -29644334.56 0.0514 0.0031
 Uranus -85874-02-26 18:42 J -29643998.96 -29643998.72 -29643998.47 0.0141 0.0035
 Uranus -85873-03-02 11:01 J -29643629.27 -29643629.04 -29643628.80 0.0141 0.0032
 Uranus -85872-03-06 21:20 J -29643259.86 -29643259.61 -29643259.36 0.0142 0.0009
 Uranus -85871-03-11 14:37 J -29642890.12 -29642889.89 -29642889.64 0.0143 0.0013
 Uranus -85870-03-16 04:03 J -29642520.58 -29642520.33 -29642520.07 0.0143 0.0012
 Neptune -85870-09-25 03:35 J -29642327.46 -29642327.35 -29642327.18 0.0088 0.0073
 Uranus -85869-03-19 22:18 J -29642150.81 -29642150.57 -29642150.33 0.0144 0.0017
 Neptune -85869-09-26 17:30 J -29641960.01 -29641959.77 -29641959.54 0.0088 0.0046
 Jupiter -85869-10-08 01:54 J -29641948.55 -29641948.42 -29641948.26 0.0517 0.0401
 Uranus -85868-03-24 15:35 J -29641781.09 -29641780.85 -29641780.59 0.0144 0.0029

Neptune -85868-09-29 10:03 J -29641592.32 -29641592.08 -29641591.82 0.0088 0.0022
 Uranus -85867-03-29 10:32 J -29641411.28 -29641411.06 -29641410.82 0.0145 0.0048
 Neptune -85867-10-01 18:27 J -29641224.99 -29641224.73 -29641224.46 0.0088 0.0006
 Uranus -85866-04-03 08:51 J -29641041.38 -29641041.13 -29641040.89 0.0145 0.0046
 Saturn -85866-07-10 14:23 J -29640943.02 -29640942.90 -29640942.76 0.0284 0.0241
 Neptune -85866-10-04 14:08 J -29640857.14 -29640856.91 -29640856.66 0.0088 0.0032
 Uranus -85865-04-07 04:03 J -29640671.53 -29640671.33 -29640671.11 0.0146 0.0071
 Saturn -85865-07-24 03:06 J -29640563.60 -29640563.37 -29640563.13 0.0286 0.0107
 Neptune -85865-10-05 19:54 J -29640489.84 -29640489.67 -29640489.45 0.0088 0.0058
 Uranus -85864-04-12 06:56 J -29640301.42 -29640301.21 -29640300.98 0.0146 0.0072
 Saturn -85864-08-07 18:13 J -29640184.00 -29640183.74 -29640183.48 0.0287 0.0038
 Neptune -85864-10-08 15:35 J -29640121.91 -29640121.85 -29640121.73 0.0088 0.0084
 Jupiter -85863-04-01 10:32 J -29639947.23 -29639947.06 -29639946.87 0.0511 0.0329
 Uranus -85863-04-17 02:52 J -29639931.57 -29639931.38 -29639931.17 0.0146 0.0086
 Saturn -85863-08-22 11:30 J -29639804.21 -29639804.02 -29639803.81 0.0288 0.0183
 Uranus -85862-04-22 10:04 J -29639561.26 -29639561.08 -29639560.89 0.0147 0.0103
 Uranus -85861-04-26 05:59 J -29639191.41 -29639191.25 -29639191.05 0.0147 0.0100
 Uranus -85860-05-01 16:32 J -29638820.94 -29638820.81 -29638820.67 0.0147 0.0122
 Uranus -85859-05-06 13:25 J -29638451.08 -29638450.94 -29638450.79 0.0147 0.0120
 Uranus -85858-05-12 01:11 J -29638080.55 -29638080.45 -29638080.31 0.0147 0.0130
 Uranus -85857-05-16 00:13 J -29637710.52 -29637710.49 -29637710.40 0.0147 0.0144
 Uranus -85856-05-21 13:11 J -29637340.04 -29637339.95 -29637339.86 0.0147 0.0136
 Saturn -85852-01-04 11:30 J -29636016.05 -29636016.02 -29636015.96 0.0276 0.0271
 Saturn -85851-01-16 07:40 J -29635639.38 -29635639.18 -29635638.97 0.0275 0.0152
 Uranus -85851-06-16 02:52 J -29635488.39 -29635488.38 -29635488.33 0.0146 0.0145
 Saturn -85850-01-27 23:30 J -29635262.76 -29635262.52 -29635262.29 0.0273 0.0042
 Saturn -85849-02-08 17:44 J -29634885.98 -29634885.76 -29634885.53 0.0272 0.0060
 Saturn -85848-02-19 09:49 J -29634509.28 -29634509.09 -29634508.89 0.0271 0.0160
 Uranus -85848-06-30 21:49 J -29634377.65 -29634377.59 -29634377.51 0.0145 0.0139
 Saturn -85847-03-02 17:59 J -29634132.78 -29634132.75 -29634132.71 0.0270 0.0267

Uranus	-85846-07-11 12:28 J	-29633637.11	-29633636.98	-29633636.86	0.0144	0.0126
Uranus	-85845-07-16 01:25 J	-29633266.52	-29633266.44	-29633266.31	0.0143	0.0131
Mars	-85844-06-16 15:20 J	-29632931.03	-29632930.86	-29632930.68	0.1631	0.0567
Uranus	-85844-07-21 01:25 J	-29632896.58	-29632896.44	-29632896.30	0.0143	0.0121
Uranus	-85843-07-26 10:47 J	-29632526.19	-29632526.05	-29632525.86	0.0142	0.0107
Uranus	-85842-07-31 11:16 J	-29632156.19	-29632156.03	-29632155.84	0.0142	0.0109
Uranus	-85841-08-04 16:32 J	-29631786.00	-29631785.81	-29631785.60	0.0141	0.0087
Uranus	-85840-08-09 17:44 J	-29631415.97	-29631415.76	-29631415.54	0.0141	0.0085
Uranus	-85839-08-14 17:44 J	-29631045.96	-29631045.76	-29631045.54	0.0140	0.0076
Uranus	-85838-08-19 19:54 J	-29630675.91	-29630675.67	-29630675.41	0.0139	0.0058
Uranus	-85837-08-23 15:20 J	-29630306.08	-29630305.86	-29630305.62	0.0139	0.0060
Saturn	-85836-07-17 12:56 J	-29629978.15	-29629977.96	-29629977.76	0.0285	0.0172
Uranus	-85836-08-28 17:59 J	-29629936.01	-29629935.75	-29629935.49	0.0138	0.0035
Saturn	-85835-08-01 06:42 J	-29629598.47	-29629598.22	-29629597.98	0.0287	0.0030
Uranus	-85835-09-02 09:20 J	-29629566.35	-29629566.11	-29629565.86	0.0137	0.0033
Saturn	-85834-08-16 05:59 J	-29629218.47	-29629218.25	-29629218.02	0.0288	0.0117
Uranus	-85834-09-07 11:30 J	-29629196.28	-29629196.02	-29629195.76	0.0137	0.0021
Saturn	-85833-08-30 06:13 J	-29628838.34	-29628838.24	-29628838.12	0.0289	0.0257
Uranus	-85833-09-10 23:30 J	-29628826.78	-29628826.52	-29628826.26	0.0136	0.0005
Uranus	-85832-09-15 23:44 J	-29628456.78	-29628456.51	-29628456.25	0.0136	0.0006
Uranus	-85831-09-20 08:23 J	-29628087.40	-29628087.15	-29628086.89	0.0135	0.0019
Uranus	-85830-09-25 06:28 J	-29627717.48	-29627717.23	-29627716.96	0.0135	0.0017
Uranus	-85829-09-28 12:42 J	-29627348.21	-29627347.97	-29627347.71	0.0134	0.0035
Uranus	-85828-10-03 08:23 J	-29626978.38	-29626978.15	-29626977.89	0.0134	0.0042
Uranus	-85827-10-07 13:11 J	-29626609.19	-29626608.95	-29626608.70	0.0134	0.0045
Uranus	-85826-10-12 06:56 J	-29626239.43	-29626239.21	-29626238.98	0.0133	0.0063
Uranus	-85825-10-15 09:35 J	-29625870.31	-29625870.10	-29625869.84	0.0133	0.0059
Uranus	-85824-10-20 01:11 J	-29625500.64	-29625500.45	-29625500.23	0.0133	0.0081
Uranus	-85823-10-24 03:06 J	-29625131.58	-29625131.37	-29625131.16	0.0132	0.0077
Saturn	-85822-01-11 15:49 J	-29625051.99	-29625051.84	-29625051.67	0.0276	0.0200

Jupiter -85822-09-23 11:44 J -29624797.12 -29624797.01 -29624796.90 0.0510 0.0452
 Uranus -85822-10-28 16:47 J -29624761.98 -29624761.80 -29624761.61 0.0132 0.0089
 Saturn -85821-01-23 16:47 J -29624675.03 -29624674.80 -29624674.58 0.0274 0.0085
 Uranus -85821-10-31 16:32 J -29624392.98 -29624392.81 -29624392.62 0.0132 0.0095
 Saturn -85820-02-03 06:13 J -29624298.49 -29624298.24 -29624297.99 0.0272 0.0018
 Uranus -85820-11-05 04:18 J -29624023.47 -29624023.32 -29624023.13 0.0132 0.0096
 Saturn -85819-02-14 15:20 J -29623922.07 -29623921.86 -29623921.64 0.0271 0.0115
 Uranus -85819-11-09 03:20 J -29623654.47 -29623654.36 -29623654.20 0.0132 0.0112
 Saturn -85818-02-26 06:28 J -29623545.36 -29623545.23 -29623545.10 0.0270 0.0220
 Uranus -85818-11-13 13:54 J -29623285.05 -29623284.92 -29623284.75 0.0131 0.0105
 Uranus -85817-11-16 12:13 J -29622916.08 -29622915.99 -29622915.89 0.0131 0.0122
 Jupiter -85816-03-17 19:54 J -29622794.71 -29622794.67 -29622794.61 0.0519 0.0504
 Uranus -85816-11-20 21:06 J -29622546.72 -29622546.62 -29622546.48 0.0131 0.0114
 Uranus -85815-11-24 18:13 J -29622177.80 -29622177.74 -29622177.63 0.0131 0.0125
 Uranus -85814-11-29 02:52 J -29621808.44 -29621808.38 -29621808.29 0.0131 0.0125
 Uranus -85813-12-01 22:47 J -29621439.61 -29621439.55 -29621439.44 0.0132 0.0125
 Uranus -85811-12-10 02:52 J -29620701.46 -29620701.38 -29620701.29 0.0132 0.0124
 Jupiter -85810-09-28 00:42 J -29620409.68 -29620409.47 -29620409.24 0.0512 0.0185
 Uranus -85809-12-17 05:30 J -29619963.33 -29619963.27 -29619963.16 0.0132 0.0125
 Saturn -85807-07-11 17:59 J -29619391.89 -29619391.75 -29619391.58 0.0284 0.0226
 Uranus -85807-12-25 09:20 J -29619225.16 -29619225.11 -29619225.01 0.0133 0.0127
 Saturn -85806-07-26 03:06 J -29619012.61 -29619012.37 -29619012.11 0.0286 0.0090
 Uranus -85806-12-29 17:59 J -29618855.80 -29618855.75 -29618855.67 0.0133 0.0128
 Saturn -85805-08-08 17:30 J -29618633.02 -29618632.77 -29618632.51 0.0288 0.0055
 Uranus -85804-01-01 13:40 J -29618486.97 -29618486.93 -29618486.84 0.0133 0.0129
 Jupiter -85804-03-22 13:25 J -29618407.13 -29618406.94 -29618406.75 0.0517 0.0250
 Saturn -85804-08-23 13:25 J -29618253.11 -29618252.94 -29618252.75 0.0289 0.0200
 Uranus -85803-01-05 22:47 J -29618117.66 -29618117.55 -29618117.43 0.0134 0.0117
 Uranus -85802-01-09 18:28 J -29617748.79 -29617748.73 -29617748.61 0.0134 0.0126
 Uranus -85801-01-14 03:35 J -29617379.47 -29617379.35 -29617379.18 0.0135 0.0108

Uranus	-85800-01-17 00:56 J	-29617010.58	-29617010.46	-29617010.33	0.0135	0.0117
Uranus	-85799-01-21 11:16 J	-29616641.19	-29616641.03	-29616640.87	0.0136	0.0101
Uranus	-85798-01-25 09:20 J	-29616272.27	-29616272.11	-29616271.94	0.0136	0.0101
Jupiter	-85798-10-03 09:06 J	-29616021.35	-29616021.12	-29616020.89	0.0514	0.0070
Uranus	-85797-01-29 20:37 J	-29615902.80	-29615902.64	-29615902.45	0.0137	0.0094
Uranus	-85796-02-01 20:23 J	-29615533.84	-29615533.65	-29615533.43	0.0137	0.0081
Uranus	-85795-02-06 09:20 J	-29615164.28	-29615164.11	-29615163.90	0.0138	0.0084
Uranus	-85794-02-10 11:16 J	-29614795.24	-29614795.03	-29614794.80	0.0138	0.0063
Saturn	-85793-01-06 11:30 J	-29614465.11	-29614465.02	-29614464.91	0.0276	0.0252
Uranus	-85793-02-15 01:40 J	-29614425.63	-29614425.43	-29614425.21	0.0139	0.0068
Saturn	-85792-01-17 06:56 J	-29614088.41	-29614088.21	-29614088.00	0.0274	0.0137
Uranus	-85792-02-18 05:30 J	-29614056.50	-29614056.27	-29614056.03	0.0140	0.0047
Jupiter	-85792-03-27 06:42 J	-29614019.46	-29614019.22	-29614018.99	0.0514	0.0011
Saturn	-85791-01-29 04:04 J	-29613711.55	-29613711.33	-29613711.10	0.0273	0.0031
Uranus	-85791-02-22 21:20 J	-29613686.84	-29613686.61	-29613686.38	0.0140	0.0043
Mars	-85791-12-20 14:52 J	-29613385.95	-29613385.88	-29613385.80	0.1912	0.1723
Saturn	-85790-02-09 22:18 J	-29613334.79	-29613334.57	-29613334.34	0.0272	0.0072
Uranus	-85790-02-27 03:06 J	-29613317.61	-29613317.37	-29613317.12	0.0141	0.0033
Saturn	-85789-02-21 07:40 J	-29612958.37	-29612958.18	-29612957.99	0.0271	0.0173
Uranus	-85789-03-02 20:23 J	-29612947.88	-29612947.65	-29612947.41	0.0141	0.0016
Uranus	-85788-03-07 05:16 J	-29612578.53	-29612578.28	-29612578.02	0.0142	0.0017
Uranus	-85787-03-11 23:59 J	-29612208.74	-29612208.50	-29612208.26	0.0143	0.0008
Neptune	-85787-03-21 02:37 J	-29612199.52	-29612199.39	-29612199.22	0.0089	0.0072
Uranus	-85786-03-16 12:28 J	-29611839.23	-29611838.98	-29611838.72	0.0143	0.0006
Neptune	-85786-03-23 18:56 J	-29611831.93	-29611831.71	-29611831.47	0.0089	0.0040
Jupiter	-85786-10-08 04:18 J	-29611633.48	-29611633.32	-29611633.15	0.0517	0.0383
Uranus	-85785-03-20 08:08 J	-29611469.39	-29611469.16	-29611468.92	0.0144	0.0026
Neptune	-85785-03-24 23:30 J	-29611464.75	-29611464.52	-29611464.28	0.0089	0.0021
Uranus	-85784-03-25 00:28 J	-29611099.72	-29611099.48	-29611099.23	0.0144	0.0037
Neptune	-85784-03-27 12:42 J	-29611097.22	-29611096.97	-29611096.70	0.0089	0.0012

Uranus -85783-03-29 20:52 J -29610729.85 -29610729.63 -29610729.39 0.0145 0.0042
 Neptune -85783-03-29 21:49 J -29610729.81 -29610729.59 -29610729.35 0.0089 0.0030 *
 Neptune -85782-04-01 05:44 J -29610362.43 -29610362.26 -29610362.06 0.0089 0.0061
 Uranus -85782-04-03 17:30 J -29610359.99 -29610359.77 -29610359.53 0.0145 0.0065
 Neptune -85781-04-02 19:40 J -29609994.77 -29609994.68 -29609994.55 0.0089 0.0080
 Uranus -85781-04-07 14:23 J -29609990.12 -29609989.90 -29609989.68 0.0146 0.0062
 Jupiter -85780-03-31 13:25 J -29609632.11 -29609631.94 -29609631.75 0.0512 0.0306
 Uranus -85780-04-12 15:35 J -29609620.05 -29609619.85 -29609619.62 0.0146 0.0083
 Pluto -85780-06-28 12:13 J -29609543.06 -29609542.99 -29609542.84 0.0067 0.0061
 Uranus -85779-04-17 12:13 J -29609250.17 -29609249.99 -29609249.79 0.0146 0.0092
 Pluto -85779-06-30 09:49 J -29609176.27 -29609176.09 -29609175.86 0.0067 0.0044
 Uranus -85778-04-22 18:13 J -29608879.92 -29608879.74 -29608879.53 0.0147 0.0096
 Uranus -85777-04-26 14:52 J -29608510.01 -29608509.88 -29608509.71 0.0147 0.0118
 Saturn -85777-07-18 17:01 J -29608426.98 -29608426.79 -29608426.58 0.0285 0.0157
 Uranus -85776-05-02 00:42 J -29608139.62 -29608139.47 -29608139.28 0.0147 0.0111
 Saturn -85776-08-02 11:16 J -29608047.28 -29608047.03 -29608046.78 0.0287 0.0015
 Uranus -85775-05-06 22:18 J -29607769.67 -29607769.57 -29607769.43 0.0147 0.0130
 Saturn -85775-08-17 07:54 J -29607667.39 -29607667.17 -29607666.93 0.0288 0.0132
 Uranus -85774-05-12 10:32 J -29607399.15 -29607399.06 -29607398.94 0.0147 0.0134
 Saturn -85774-09-01 04:32 J -29607287.38 -29607287.31 -29607287.21 0.0289 0.0272
 Uranus -85773-05-16 09:20 J -29607029.20 -29607029.11 -29607028.98 0.0147 0.0134
 Uranus -85771-05-26 23:16 J -29606288.59 -29606288.53 -29606288.43 0.0147 0.0140
 Uranus -85768-06-11 01:11 J -29605177.48 -29605177.45 -29605177.41 0.0147 0.0145
 Uranus -85766-06-21 15:35 J -29604436.86 -29604436.85 -29604436.79 0.0146 0.0145
 Mars -85765-06-18 23:44 J -29604073.71 -29604073.51 -29604073.30 0.1634 0.0282
 Uranus -85765-06-26 04:47 J -29604066.30 -29604066.30 -29604066.27 0.0145 0.0145
 Saturn -85763-01-12 20:23 J -29603500.81 -29603500.65 -29603500.46 0.0276 0.0182
 Uranus -85763-07-06 20:52 J -29603325.73 -29603325.63 -29603325.49 0.0145 0.0128
 Saturn -85762-01-24 15:06 J -29603124.10 -29603123.87 -29603123.63 0.0274 0.0072
 Uranus -85762-07-11 20:52 J -29602955.71 -29602955.63 -29602955.55 0.0144 0.0137

Saturn	-85761-02-05 02:52 J	-29602747.62	-29602747.38	-29602747.14	0.0272	0.0029
Uranus	-85761-07-16 10:04 J	-29602585.21	-29602585.08	-29602584.93	0.0144	0.0120
Saturn	-85760-02-15 18:13 J	-29602370.95	-29602370.74	-29602370.54	0.0271	0.0129
Uranus	-85760-07-21 08:23 J	-29602215.30	-29602215.15	-29602214.98	0.0143	0.0114
Saturn	-85759-02-27 10:32 J	-29601994.18	-29601994.06	-29601993.94	0.0270	0.0233
Uranus	-85759-07-26 18:42 J	-29601844.85	-29601844.72	-29601844.54	0.0142	0.0113
Uranus	-85758-07-31 17:44 J	-29601474.95	-29601474.76	-29601474.53	0.0142	0.0090
Uranus	-85757-08-05 00:42 J	-29601104.65	-29601104.47	-29601104.27	0.0141	0.0094
Uranus	-85756-08-10 00:42 J	-29600734.70	-29600734.47	-29600734.24	0.0141	0.0075
Uranus	-85755-08-15 02:23 J	-29600364.61	-29600364.40	-29600364.16	0.0140	0.0067
Uranus	-85754-08-20 03:20 J	-29599994.59	-29599994.36	-29599994.10	0.0139	0.0063
Uranus	-85753-08-24 00:42 J	-29599624.71	-29599624.47	-29599624.23	0.0139	0.0040
Uranus	-85752-08-29 01:40 J	-29599254.69	-29599254.43	-29599254.17	0.0138	0.0042
Uranus	-85751-09-02 17:59 J	-29598885.00	-29598884.75	-29598884.49	0.0137	0.0021
Uranus	-85750-09-07 18:42 J	-29598514.98	-29598514.72	-29598514.45	0.0137	0.0014
Uranus	-85749-09-11 07:11 J	-29598145.46	-29598145.20	-29598144.94	0.0136	0.0008
Saturn	-85748-07-12 14:23 J	-29597841.08	-29597840.90	-29597840.73	0.0284	0.0211
Uranus	-85748-09-16 06:42 J	-29597775.48	-29597775.22	-29597774.95	0.0136	0.0013
Saturn	-85747-07-26 23:59 J	-29597461.74	-29597461.50	-29597461.24	0.0286	0.0075
Uranus	-85747-09-20 16:04 J	-29597406.09	-29597405.83	-29597405.57	0.0135	0.0009
Saturn	-85746-08-10 18:28 J	-29597081.97	-29597081.73	-29597081.49	0.0288	0.0071
Uranus	-85746-09-25 13:54 J	-29597036.17	-29597035.92	-29597035.66	0.0135	0.0033
Saturn	-85745-08-24 18:28 J	-29596701.88	-29596701.73	-29596701.56	0.0289	0.0217
Uranus	-85745-09-28 20:23 J	-29596666.89	-29596666.65	-29596666.39	0.0134	0.0034
Uranus	-85744-10-03 16:32 J	-29596297.05	-29596296.81	-29596296.56	0.0134	0.0044
Uranus	-85743-10-07 20:37 J	-29595927.86	-29595927.64	-29595927.39	0.0134	0.0057
Uranus	-85742-10-12 14:37 J	-29595558.11	-29595557.89	-29595557.64	0.0133	0.0055
Uranus	-85741-10-15 17:01 J	-29595188.99	-29595188.79	-29595188.57	0.0133	0.0077
Uranus	-85740-10-20 08:52 J	-29594819.33	-29594819.13	-29594818.90	0.0133	0.0072
Jupiter	-85739-09-22 09:20 J	-29594482.18	-29594482.11	-29594482.02	0.0509	0.0479

Uranus	-85739-10-24 10:18 J	-29594450.25	-29594450.07	-29594449.87	0.0132	0.0090
Uranus	-85738-10-29 00:42 J	-29594080.65	-29594080.47	-29594080.28	0.0132	0.0089
Uranus	-85737-11-01 00:28 J	-29593711.64	-29593711.48	-29593711.29	0.0132	0.0096
Uranus	-85736-11-05 12:56 J	-29593342.08	-29593341.96	-29593341.79	0.0132	0.0107
Uranus	-85735-11-09 11:59 J	-29592973.16	-29592973.00	-29592972.83	0.0132	0.0102
Saturn	-85734-01-07 09:20 J	-29592914.23	-29592914.11	-29592913.97	0.0276	0.0233
Uranus	-85734-11-13 23:01 J	-29592603.63	-29592603.54	-29592603.43	0.0131	0.0120
Saturn	-85733-01-19 10:47 J	-29592537.25	-29592537.05	-29592536.84	0.0274	0.0123
Uranus	-85733-11-16 20:08 J	-29592234.79	-29592234.66	-29592234.52	0.0131	0.0110
Saturn	-85732-01-30 09:20 J	-29592160.35	-29592160.11	-29592159.88	0.0273	0.0019
Uranus	-85732-11-21 05:30 J	-29591865.32	-29591865.27	-29591865.17	0.0131	0.0126
Saturn	-85731-02-10 21:35 J	-29591783.83	-29591783.60	-29591783.36	0.0271	0.0083
Uranus	-85731-11-25 01:54 J	-29591496.51	-29591496.42	-29591496.29	0.0131	0.0119
Saturn	-85730-02-22 04:18 J	-29591407.48	-29591407.32	-29591407.13	0.0270	0.0186
Uranus	-85730-11-29 10:47 J	-29591127.10	-29591127.05	-29591126.95	0.0131	0.0126
Uranus	-85729-12-02 06:56 J	-29590758.25	-29590758.21	-29590758.16	0.0131	0.0129
Uranus	-85728-12-06 15:20 J	-29590388.92	-29590388.86	-29590388.76	0.0132	0.0125
Jupiter	-85727-09-27 17:16 J	-29590093.99	-29590093.78	-29590093.56	0.0512	0.0208
Uranus	-85726-12-14 19:25 J	-29589650.76	-29589650.69	-29589650.59	0.0132	0.0123
Uranus	-85724-12-21 23:01 J	-29588912.61	-29588912.54	-29588912.44	0.0132	0.0124
Uranus	-85723-12-25 18:13 J	-29588543.76	-29588543.74	-29588543.68	0.0133	0.0131
Uranus	-85722-12-30 02:37 J	-29588174.45	-29588174.39	-29588174.30	0.0133	0.0126
Jupiter	-85721-03-22 01:54 J	-29588091.62	-29588091.42	-29588091.23	0.0517	0.0279
Uranus	-85720-01-01 22:18 J	-29587805.67	-29587805.57	-29587805.47	0.0133	0.0121
Uranus	-85719-01-06 06:42 J	-29587436.28	-29587436.22	-29587436.11	0.0134	0.0125
Saturn	-85719-07-06 09:06 J	-29587255.17	-29587255.12	-29587255.04	0.0283	0.0271
Uranus	-85718-01-10 02:52 J	-29587067.51	-29587067.38	-29587067.22	0.0134	0.0109
Mars	-85718-06-13 11:16 J	-29586913.12	-29586913.03	-29586912.95	0.1621	0.1474
Saturn	-85718-07-20 20:23 J	-29586875.86	-29586875.65	-29586875.42	0.0285	0.0142
Uranus	-85717-01-14 12:42 J	-29586698.08	-29586697.97	-29586697.85	0.0135	0.0118

Saturn -85717-08-03 11:30 J -29586496.28 -29586496.02 -29586495.76 0.0287 0.0004
 Uranus -85716-01-17 09:20 J -29586329.27 -29586329.11 -29586328.93 0.0135 0.0100
 Saturn -85716-08-18 04:32 J -29586116.53 -29586116.31 -29586116.08 0.0288 0.0149
 Uranus -85715-01-21 20:23 J -29585959.80 -29585959.65 -29585959.50 0.0136 0.0106
 Jupiter -85715-10-02 10:47 J -29585706.29 -29585706.05 -29585705.80 0.0514 0.0052
 Uranus -85714-01-25 17:44 J -29585590.93 -29585590.76 -29585590.56 0.0136 0.0093
 Uranus -85713-01-30 05:44 J -29585221.44 -29585221.26 -29585221.07 0.0137 0.0087
 Uranus -85712-02-02 04:47 J -29584852.49 -29584852.30 -29584852.09 0.0137 0.0084
 Mars -85712-12-23 16:04 J -29584528.02 -29584527.83 -29584527.63 0.1906 0.0367
 Uranus -85711-02-06 17:59 J -29584482.94 -29584482.75 -29584482.52 0.0138 0.0067
 Uranus -85710-02-10 18:56 J -29584113.90 -29584113.71 -29584113.48 0.0138 0.0072
 Uranus -85709-02-15 10:18 J -29583744.29 -29583744.07 -29583743.84 0.0139 0.0049
 Jupiter -85709-03-26 05:44 J -29583704.49 -29583704.26 -29583704.04 0.0515 0.0030
 Uranus -85708-02-18 13:11 J -29583375.17 -29583374.95 -29583374.71 0.0140 0.0052
 Uranus -85707-02-23 05:59 J -29583005.48 -29583005.25 -29583005.01 0.0140 0.0034
 Uranus -85706-02-27 11:01 J -29582636.28 -29582636.04 -29582635.78 0.0141 0.0025
 Neptune -85706-09-24 10:47 J -29582427.14 -29582427.05 -29582426.90 0.0088 0.0080
 Uranus -85705-03-03 05:16 J -29582266.51 -29582266.28 -29582266.04 0.0141 0.0020
 Neptune -85705-09-26 05:30 J -29582059.45 -29582059.27 -29582059.08 0.0088 0.0062
 Saturn -85704-01-13 19:54 J -29581949.86 -29581949.67 -29581949.47 0.0276 0.0165
 Uranus -85704-03-07 13:11 J -29581897.20 -29581896.95 -29581896.69 0.0142 0.0002
 Neptune -85704-09-28 12:56 J -29581692.20 -29581691.96 -29581691.69 0.0088 0.0028
 Saturn -85703-01-25 11:30 J -29581573.26 -29581573.02 -29581572.78 0.0274 0.0060
 Uranus -85703-03-12 08:52 J -29581527.38 -29581527.13 -29581526.89 0.0143 0.0003
 Neptune -85703-10-01 10:04 J -29581324.34 -29581324.08 -29581323.81 0.0088 0.0010
 Jupiter -85703-10-07 13:25 J -29581318.10 -29581317.94 -29581317.78 0.0516 0.0371
 Saturn -85702-02-06 04:32 J -29581196.54 -29581196.31 -29581196.08 0.0272 0.0040
 Uranus -85702-03-16 19:25 J -29581157.93 -29581157.69 -29581157.43 0.0143 0.0023
 Neptune -85702-10-03 16:32 J -29580957.06 -29580956.81 -29580956.55 0.0088 0.0024
 Saturn -85701-02-17 22:04 J -29580819.77 -29580819.58 -29580819.38 0.0271 0.0140

Uranus -85701-03-20 16:18 J -29580788.06 -29580787.82 -29580787.58 0.0144 0.0026
 Neptune -85701-10-05 12:28 J -29580589.21 -29580588.98 -29580588.73 0.0088 0.0041
 Saturn -85700-02-28 08:23 J -29580443.24 -29580443.15 -29580443.04 0.0270 0.0246
 Uranus -85700-03-25 06:56 J -29580418.45 -29580418.21 -29580417.96 0.0144 0.0039
 Neptune -85700-10-07 20:08 J -29580221.77 -29580221.66 -29580221.51 0.0088 0.0075
 Uranus -85699-03-30 04:32 J -29580048.52 -29580048.31 -29580048.08 0.0145 0.0057
 Uranus -85698-04-03 23:44 J -29579678.73 -29579678.51 -29579678.25 0.0145 0.0056
 Jupiter -85697-03-31 01:54 J -29579316.61 -29579316.42 -29579316.22 0.0513 0.0283
 Uranus -85697-04-07 22:18 J -29579308.76 -29579308.57 -29579308.36 0.0146 0.0080
 Uranus -85696-04-12 22:32 J -29578938.77 -29578938.56 -29578938.34 0.0146 0.0079
 Uranus -85695-04-17 20:52 J -29578568.81 -29578568.63 -29578568.44 0.0146 0.0095
 Uranus -85694-04-23 01:11 J -29578198.61 -29578198.45 -29578198.26 0.0147 0.0109
 Pluto -85693-01-03 09:06 J -29577943.34 -29577943.12 -29577942.87 0.0078 0.0030
 Uranus -85693-04-26 23:01 J -29577828.69 -29577828.54 -29577828.36 0.0147 0.0106
 Uranus -85692-05-02 07:54 J -29577458.29 -29577458.17 -29577458.03 0.0147 0.0127
 Uranus -85691-05-07 05:30 J -29577088.40 -29577088.27 -29577088.13 0.0147 0.0123
 Uranus -85690-05-12 17:01 J -29576717.88 -29576717.79 -29576717.67 0.0147 0.0133
 Uranus -85689-05-16 15:35 J -29576347.88 -29576347.85 -29576347.79 0.0147 0.0145
 Saturn -85689-07-13 12:13 J -29576290.16 -29576289.99 -29576289.80 0.0284 0.0195
 Uranus -85688-05-22 05:01 J -29575977.37 -29575977.29 -29575977.19 0.0147 0.0137
 Saturn -85688-07-28 02:23 J -29575910.64 -29575910.40 -29575910.16 0.0286 0.0057
 Saturn -85687-08-11 23:30 J -29575530.75 -29575530.52 -29575530.28 0.0288 0.0089
 Uranus -85686-06-01 18:56 J -29575236.74 -29575236.71 -29575236.68 0.0147 0.0145
 Mars -85686-06-22 13:54 J -29575216.09 -29575215.92 -29575215.75 0.1638 0.0889
 Saturn -85686-08-26 23:30 J -29575150.66 -29575150.52 -29575150.36 0.0289 0.0233
 Uranus -85683-06-16 16:47 J -29574125.85 -29574125.80 -29574125.71 0.0146 0.0142
 Uranus -85681-06-26 11:01 J -29573385.08 -29573385.04 -29573384.97 0.0145 0.0142
 Uranus -85680-07-01 14:08 J -29573015.01 -29573014.91 -29573014.81 0.0145 0.0133
 Uranus -85679-07-07 03:20 J -29572644.42 -29572644.36 -29572644.28 0.0145 0.0139
 Uranus -85678-07-12 03:20 J -29572274.49 -29572274.36 -29572274.20 0.0144 0.0119

Uranus	-85677-07-16 17:01 J	-29571903.91	-29571903.79	-29571903.64	0.0144	0.0123
Uranus	-85676-07-21 15:20 J	-29571534.01	-29571533.86	-29571533.68	0.0143	0.0111
Saturn	-85675-01-08 11:44 J	-29571363.14	-29571363.01	-29571362.86	0.0276	0.0217
Uranus	-85675-07-27 02:52 J	-29571163.55	-29571163.38	-29571163.17	0.0142	0.0097
Saturn	-85674-01-20 15:35 J	-29570986.06	-29570985.85	-29570985.63	0.0274	0.0107
Uranus	-85674-08-01 00:42 J	-29570793.64	-29570793.47	-29570793.26	0.0142	0.0099
Saturn	-85673-02-01 08:37 J	-29570609.39	-29570609.14	-29570608.90	0.0273	0.0007
Uranus	-85673-08-05 08:37 J	-29570423.34	-29570423.14	-29570422.91	0.0141	0.0077
Saturn	-85672-02-11 17:44 J	-29570232.99	-29570232.76	-29570232.53	0.0271	0.0092
Uranus	-85672-08-10 06:42 J	-29570053.43	-29570053.22	-29570052.97	0.0141	0.0077
Saturn	-85671-02-23 05:59 J	-29569856.39	-29569856.25	-29569856.08	0.0270	0.0199
Uranus	-85671-08-15 10:32 J	-29569683.28	-29569683.06	-29569682.83	0.0140	0.0064
Uranus	-85670-08-20 09:49 J	-29569313.34	-29569313.09	-29569312.83	0.0139	0.0047
Uranus	-85669-08-24 08:23 J	-29568943.38	-29568943.15	-29568942.91	0.0139	0.0048
Uranus	-85668-08-29 08:23 J	-29568573.42	-29568573.15	-29568572.88	0.0138	0.0023
Uranus	-85667-09-03 02:23 J	-29568203.65	-29568203.40	-29568203.15	0.0138	0.0023
Uranus	-85666-09-08 02:08 J	-29567833.67	-29567833.41	-29567833.14	0.0137	0.0009
Uranus	-85665-09-11 15:49 J	-29567464.09	-29567463.84	-29567463.58	0.0136	0.0006
Uranus	-85664-09-16 14:37 J	-29567094.16	-29567093.89	-29567093.62	0.0136	0.0005
Uranus	-85663-09-21 00:42 J	-29566724.72	-29566724.47	-29566724.22	0.0135	0.0029
Uranus	-85662-09-25 21:49 J	-29566354.85	-29566354.59	-29566354.33	0.0135	0.0026
Uranus	-85661-09-29 04:18 J	-29565985.55	-29565985.32	-29565985.06	0.0134	0.0045
Saturn	-85660-07-07 10:04 J	-29565704.18	-29565704.08	-29565703.96	0.0283	0.0254
Uranus	-85660-10-04 00:13 J	-29565615.73	-29565615.49	-29565615.24	0.0134	0.0049
Saturn	-85659-07-21 17:01 J	-29565325.01	-29565324.79	-29565324.54	0.0285	0.0123
Uranus	-85659-10-08 04:47 J	-29565246.52	-29565246.30	-29565246.05	0.0134	0.0054
Saturn	-85658-08-05 06:28 J	-29564945.49	-29564945.23	-29564944.97	0.0287	0.0020
Uranus	-85658-10-12 23:01 J	-29564876.75	-29564876.54	-29564876.31	0.0133	0.0071
Saturn	-85657-08-19 01:11 J	-29564565.65	-29564565.45	-29564565.24	0.0288	0.0166
Uranus	-85657-10-16 01:40 J	-29564507.64	-29564507.43	-29564507.19	0.0133	0.0067

Jupiter -85656-09-22 03:06 J -29564166.43 -29564166.37 -29564166.30 0.0509 0.0488
 Uranus -85656-10-20 17:59 J -29564137.92 -29564137.75 -29564137.54 0.0133 0.0089
 Uranus -85655-10-24 18:56 J -29563768.89 -29563768.71 -29563768.49 0.0132 0.0084
 Uranus -85654-10-29 09:49 J -29563399.25 -29563399.09 -29563398.90 0.0132 0.0096
 Uranus -85653-11-01 08:52 J -29563030.27 -29563030.13 -29563029.94 0.0132 0.0100
 Uranus -85652-11-05 22:18 J -29562660.73 -29562660.57 -29562660.41 0.0132 0.0101
 Uranus -85651-11-09 19:54 J -29562291.77 -29562291.67 -29562291.53 0.0132 0.0116
 Uranus -85650-11-14 07:25 J -29561922.32 -29561922.19 -29561922.04 0.0131 0.0108
 Uranus -85649-11-17 04:18 J -29561553.38 -29561553.32 -29561553.23 0.0131 0.0125
 Uranus -85648-11-21 14:37 J -29561183.99 -29561183.89 -29561183.75 0.0131 0.0115
 Uranus -85647-11-25 11:01 J -29560815.10 -29560815.04 -29560814.97 0.0131 0.0127
 Saturn -85646-01-03 17:30 J -29560775.84 -29560775.77 -29560775.68 0.0278 0.0260
 Uranus -85646-11-29 20:23 J -29560445.71 -29560445.65 -29560445.55 0.0131 0.0125
 Saturn -85645-01-15 15:35 J -29560399.05 -29560398.85 -29560398.64 0.0276 0.0148
 Uranus -85645-12-02 16:04 J -29560076.90 -29560076.83 -29560076.76 0.0131 0.0126
 Saturn -85644-01-26 12:28 J -29560022.21 -29560021.98 -29560021.75 0.0274 0.0045
 Jupiter -85644-09-26 18:28 J -29559778.95 -29559778.73 -29559778.51 0.0511 0.0230
 Saturn -85643-02-07 09:20 J -29559645.33 -29559645.11 -29559644.88 0.0272 0.0052
 Uranus -85643-12-10 19:40 J -29559338.74 -29559338.68 -29559338.57 0.0132 0.0124
 Saturn -85642-02-18 22:18 J -29559268.76 -29559268.57 -29559268.36 0.0271 0.0153
 Saturn -85641-03-01 04:18 J -29558892.37 -29558892.32 -29558892.26 0.0270 0.0262
 Uranus -85641-12-17 23:16 J -29558600.61 -29558600.53 -29558600.41 0.0132 0.0121
 Uranus -85640-12-22 08:37 J -29558231.14 -29558231.14 -29558231.13 0.0132 0.0132
 Mars -85639-06-15 22:47 J -29558055.69 -29558055.55 -29558055.41 0.1624 0.1132
 Uranus -85639-12-26 03:20 J -29557862.45 -29557862.36 -29557862.25 0.0133 0.0122
 Jupiter -85638-03-21 23:59 J -29557776.68 -29557776.50 -29557776.33 0.0518 0.0320
 Uranus -85638-12-30 12:13 J -29557493.06 -29557492.99 -29557492.89 0.0133 0.0124
 Uranus -85636-01-02 06:56 J -29557124.28 -29557124.21 -29557124.09 0.0133 0.0123
 Uranus -85635-01-06 16:47 J -29556754.93 -29556754.80 -29556754.66 0.0134 0.0111
 Uranus -85634-01-10 11:44 J -29556386.10 -29556386.01 -29556385.87 0.0134 0.0119

Uranus	-85633-01-14 21:49 J	-29556016.75	-29556016.59	-29556016.42	0.0135	0.0100
Mars	-85633-12-27 07:40 J	-29555669.35	-29555669.18	-29555669.01	0.1900	0.1117
Uranus	-85632-01-17 18:13 J	-29555647.88	-29555647.74	-29555647.59	0.0135	0.0109
Jupiter	-85632-10-01 18:42 J	-29555390.95	-29555390.72	-29555390.49	0.0513	0.0020
Uranus	-85631-01-22 04:32 J	-29555278.46	-29555278.31	-29555278.11	0.0136	0.0093
Uranus	-85630-01-26 02:37 J	-29554909.57	-29554909.39	-29554909.21	0.0136	0.0093
Saturn	-85630-07-15 17:01 J	-29554738.97	-29554738.79	-29554738.59	0.0284	0.0177
Uranus	-85629-01-30 14:23 J	-29554540.08	-29554539.90	-29554539.69	0.0137	0.0084
Saturn	-85629-07-29 08:37 J	-29554359.38	-29554359.14	-29554358.89	0.0286	0.0039
Uranus	-85628-02-02 13:40 J	-29554171.13	-29554170.93	-29554170.71	0.0137	0.0072
Saturn	-85628-08-13 04:18 J	-29553979.56	-29553979.32	-29553979.09	0.0288	0.0105
Uranus	-85627-02-07 03:20 J	-29553801.55	-29553801.36	-29553801.14	0.0138	0.0074
Saturn	-85627-08-28 00:28 J	-29553599.60	-29553599.48	-29553599.34	0.0289	0.0247
Uranus	-85626-02-11 04:18 J	-29553432.54	-29553432.32	-29553432.09	0.0138	0.0052
Jupiter	-85626-03-26 23:01 J	-29553388.77	-29553388.54	-29553388.31	0.0516	0.0047
Uranus	-85625-02-15 19:25 J	-29553062.91	-29553062.69	-29553062.46	0.0139	0.0058
Uranus	-85624-02-18 21:49 J	-29552693.83	-29552693.59	-29552693.35	0.0140	0.0035
Uranus	-85623-02-23 14:23 J	-29552324.13	-29552323.90	-29552323.65	0.0140	0.0034
Neptune	-85623-03-20 22:04 J	-29552298.66	-29552298.58	-29552298.45	0.0089	0.0081
Uranus	-85622-02-27 18:42 J	-29551954.96	-29551954.72	-29551954.47	0.0141	0.0021
Neptune	-85622-03-23 02:52 J	-29551931.56	-29551931.38	-29551931.16	0.0089	0.0051
Uranus	-85621-03-03 13:25 J	-29551585.18	-29551584.94	-29551584.69	0.0141	0.0006
Neptune	-85621-03-24 15:06 J	-29551564.11	-29551563.87	-29551563.62	0.0089	0.0031
Uranus	-85620-03-07 20:23 J	-29551215.89	-29551215.65	-29551215.39	0.0142	0.0007
Neptune	-85620-03-27 00:42 J	-29551196.71	-29551196.47	-29551196.23	0.0089	0.0001
Jupiter	-85620-10-06 18:56 J	-29551002.89	-29551002.71	-29551002.52	0.0515	0.0344
Uranus	-85619-03-12 16:47 J	-29550846.03	-29550845.80	-29550845.55	0.0143	0.0019
Neptune	-85619-03-29 07:40 J	-29550829.42	-29550829.18	-29550828.91	0.0089	0.0019
Uranus	-85618-03-17 03:06 J	-29550476.62	-29550476.37	-29550476.12	0.0143	0.0016
Neptune	-85618-03-31 22:18 J	-29550461.76	-29550461.57	-29550461.35	0.0089	0.0051

Uranus -85617-03-21 00:56 J -29550106.69 -29550106.46 -29550106.22 0.0144 0.0038
 Neptune -85617-04-02 02:08 J -29550094.55 -29550094.41 -29550094.23 0.0089 0.0069
 Saturn -85616-01-09 17:59 J -29549811.90 -29549811.75 -29549811.58 0.0276 0.0199
 Uranus -85616-03-25 14:37 J -29549737.13 -29549736.89 -29549736.64 0.0144 0.0046
 Saturn -85615-01-21 17:16 J -29549435.01 -29549434.78 -29549434.55 0.0274 0.0091
 Uranus -85615-03-30 13:40 J -29549367.15 -29549366.93 -29549366.70 0.0145 0.0052
 Saturn -85614-02-02 05:30 J -29549058.52 -29549058.27 -29549058.03 0.0272 0.0005
 Jupiter -85614-03-31 06:28 J -29549001.43 -29549001.23 -29549001.03 0.0513 0.0270
 Uranus -85614-04-04 07:11 J -29548997.41 -29548997.20 -29548996.96 0.0145 0.0073
 Saturn -85613-02-13 18:56 J -29548681.92 -29548681.71 -29548681.49 0.0271 0.0106
 Uranus -85613-04-08 06:42 J -29548627.42 -29548627.22 -29548626.99 0.0146 0.0071
 Saturn -85612-02-24 11:16 J -29548305.16 -29548305.03 -29548304.88 0.0270 0.0213
 Uranus -85612-04-13 05:16 J -29548257.48 -29548257.28 -29548257.08 0.0146 0.0092
 Uranus -85611-04-18 04:18 J -29547887.49 -29547887.32 -29547887.13 0.0146 0.0098
 Uranus -85610-04-23 07:11 J -29547517.36 -29547517.20 -29547517.00 0.0147 0.0104
 Uranus -85609-04-27 06:13 J -29547147.36 -29547147.24 -29547147.09 0.0147 0.0123
 Uranus -85608-05-02 13:40 J -29546777.07 -29546776.93 -29546776.75 0.0147 0.0115
 Uranus -85607-05-07 12:28 J -29546407.06 -29546406.98 -29546406.86 0.0147 0.0134
 Mars -85607-06-25 00:28 J -29546358.60 -29546358.48 -29546358.36 0.1642 0.1261
 Uranus -85606-05-12 23:44 J -29546036.59 -29546036.51 -29546036.39 0.0147 0.0135
 Uranus -85605-05-16 22:32 J -29545666.64 -29545666.56 -29545666.46 0.0147 0.0136
 Uranus -85603-05-27 11:30 J -29544926.09 -29544926.02 -29544925.92 0.0147 0.0139
 Saturn -85601-07-08 06:56 J -29544153.35 -29544153.21 -29544153.06 0.0283 0.0234
 Uranus -85600-06-11 16:04 J -29543814.88 -29543814.83 -29543814.78 0.0146 0.0143
 Saturn -85600-07-22 13:40 J -29543774.16 -29543773.93 -29543773.69 0.0285 0.0103
 Saturn -85599-08-06 05:59 J -29543394.50 -29543394.25 -29543394.01 0.0287 0.0039
 Uranus -85598-06-22 06:28 J -29543074.28 -29543074.23 -29543074.13 0.0146 0.0139
 Saturn -85598-08-21 04:32 J -29543014.49 -29543014.31 -29543014.11 0.0288 0.0184
 Uranus -85597-06-26 16:32 J -29542703.86 -29542703.81 -29542703.73 0.0145 0.0141
 Uranus -85596-07-01 21:06 J -29542333.69 -29542333.62 -29542333.53 0.0145 0.0137

Uranus	-85595-07-07 09:20 J	-29541963.24	-29541963.11	-29541962.95	0.0145	0.0121
Uranus	-85594-07-12 09:49 J	-29541593.18	-29541593.09	-29541592.96	0.0144	0.0129
Uranus	-85593-07-16 23:01 J	-29541222.70	-29541222.54	-29541222.36	0.0144	0.0110
Uranus	-85592-07-21 20:52 J	-29540852.79	-29540852.63	-29540852.45	0.0143	0.0106
Uranus	-85591-07-27 08:52 J	-29540482.30	-29540482.13	-29540481.94	0.0142	0.0102
Uranus	-85590-08-01 05:59 J	-29540112.45	-29540112.25	-29540112.01	0.0142	0.0080
Uranus	-85589-08-05 15:20 J	-29539742.05	-29539741.86	-29539741.64	0.0141	0.0084
Uranus	-85588-08-10 12:42 J	-29539372.20	-29539371.97	-29539371.72	0.0141	0.0064
Saturn	-85587-01-04 13:11 J	-29539225.06	-29539224.95	-29539224.83	0.0278	0.0243
Uranus	-85587-08-15 18:13 J	-29539001.97	-29539001.74	-29539001.51	0.0140	0.0057
Saturn	-85586-01-16 15:20 J	-29538848.06	-29538847.86	-29538847.65	0.0276	0.0133
Uranus	-85586-08-20 16:04 J	-29538632.08	-29538631.83	-29538631.58	0.0139	0.0051
Saturn	-85585-01-28 16:47 J	-29538471.03	-29538470.80	-29538470.57	0.0274	0.0032
Uranus	-85585-08-24 16:18 J	-29538262.07	-29538261.82	-29538261.57	0.0139	0.0029
Saturn	-85584-02-08 10:04 J	-29538094.31	-29538094.08	-29538093.84	0.0272	0.0065
Uranus	-85584-08-29 14:08 J	-29537892.16	-29537891.91	-29537891.63	0.0138	0.0031
Saturn	-85583-02-19 18:28 J	-29537717.92	-29537717.73	-29537717.54	0.0271	0.0167
Uranus	-85583-09-03 09:49 J	-29537522.34	-29537522.09	-29537521.84	0.0138	0.0009
Uranus	-85582-09-08 07:54 J	-29537152.44	-29537152.17	-29537151.90	0.0137	0.0004
Uranus	-85581-09-11 22:32 J	-29536782.81	-29536782.56	-29536782.30	0.0137	0.0004
Uranus	-85580-09-16 20:08 J	-29536412.93	-29536412.66	-29536412.39	0.0136	0.0022
Uranus	-85579-09-21 07:25 J	-29536043.44	-29536043.19	-29536042.94	0.0136	0.0020
Uranus	-85578-09-26 03:49 J	-29535673.58	-29535673.34	-29535673.08	0.0135	0.0043
Uranus	-85577-09-29 11:44 J	-29535304.24	-29535304.01	-29535303.76	0.0135	0.0042
Uranus	-85576-10-04 07:11 J	-29534934.43	-29534934.20	-29534933.95	0.0134	0.0054
Uranus	-85575-10-08 12:42 J	-29534565.19	-29534564.97	-29534564.74	0.0134	0.0064
Uranus	-85574-10-13 06:13 J	-29534195.46	-29534195.24	-29534195.00	0.0133	0.0064
Uranus	-85573-10-16 08:52 J	-29533826.30	-29533826.13	-29533825.91	0.0133	0.0085
Uranus	-85572-10-21 01:11 J	-29533456.64	-29533456.45	-29533456.22	0.0133	0.0079
Saturn	-85571-07-16 23:44 J	-29533187.71	-29533187.51	-29533187.30	0.0284	0.0157

Uranus	-85571-10-25 02:52 J	-29533087.55	-29533087.38	-29533087.21	0.0132	0.0097
Saturn	-85570-07-31 12:28 J	-29532808.23	-29532807.98	-29532807.72	0.0286	0.0019
Uranus	-85570-10-29 17:01 J	-29532717.95	-29532717.79	-29532717.59	0.0132	0.0094
Saturn	-85569-08-14 04:32 J	-29532428.55	-29532428.31	-29532428.07	0.0288	0.0125
Uranus	-85569-11-01 16:47 J	-29532348.95	-29532348.80	-29532348.63	0.0132	0.0102
Saturn	-85568-08-28 23:01 J	-29532048.64	-29532048.54	-29532048.44	0.0289	0.0266
Uranus	-85568-11-06 05:44 J	-29531979.38	-29531979.26	-29531979.10	0.0132	0.0111
Uranus	-85567-11-10 04:04 J	-29531610.47	-29531610.33	-29531610.17	0.0132	0.0107
Uranus	-85566-11-14 15:49 J	-29531240.92	-29531240.84	-29531240.75	0.0131	0.0123
Uranus	-85565-11-17 12:13 J	-29530872.10	-29530871.99	-29530871.84	0.0131	0.0113
Uranus	-85564-11-21 22:47 J	-29530502.59	-29530502.55	-29530502.47	0.0131	0.0128
Uranus	-85563-11-25 18:56 J	-29530133.80	-29530133.71	-29530133.60	0.0131	0.0120
Uranus	-85562-11-30 04:18 J	-29529764.35	-29529764.32	-29529764.23	0.0131	0.0128
Jupiter	-85561-09-26 02:52 J	-29529463.58	-29529463.38	-29529463.19	0.0510	0.0273
Uranus	-85561-12-03 00:13 J	-29529395.53	-29529395.49	-29529395.44	0.0131	0.0129
Mars	-85560-06-18 01:54 J	-29529198.61	-29529198.42	-29529198.24	0.1627	0.0059
Uranus	-85560-12-07 09:35 J	-29529026.17	-29529026.10	-29529026.01	0.0132	0.0125
Uranus	-85558-12-15 13:40 J	-29528288.01	-29528287.93	-29528287.81	0.0132	0.0121
Saturn	-85557-01-11 20:08 J	-29528260.83	-29528260.66	-29528260.47	0.0276	0.0183
Saturn	-85556-01-22 14:37 J	-29527884.12	-29527883.89	-29527883.65	0.0274	0.0078
Uranus	-85556-12-22 17:44 J	-29527549.85	-29527549.76	-29527549.64	0.0132	0.0120
Saturn	-85555-02-03 06:42 J	-29527507.45	-29527507.22	-29527506.98	0.0272	0.0020
Jupiter	-85555-03-21 18:13 J	-29527460.91	-29527460.74	-29527460.57	0.0518	0.0342
Uranus	-85555-12-26 12:28 J	-29527181.03	-29527180.98	-29527180.90	0.0133	0.0128
Saturn	-85554-02-15 01:25 J	-29527130.65	-29527130.44	-29527130.23	0.0271	0.0120
Uranus	-85554-12-30 21:06 J	-29526811.71	-29526811.62	-29526811.50	0.0133	0.0120
Saturn	-85553-02-26 14:23 J	-29526754.02	-29526753.90	-29526753.76	0.0270	0.0226
Uranus	-85552-01-02 16:18 J	-29526442.93	-29526442.82	-29526442.69	0.0133	0.0116
Uranus	-85551-01-07 01:25 J	-29526073.55	-29526073.44	-29526073.31	0.0134	0.0117
Uranus	-85550-01-10 20:52 J	-29525704.77	-29525704.63	-29525704.45	0.0134	0.0103

Uranus -85549-01-15 06:56 J -29525335.34 -29525335.21 -29525335.06 0.0135 0.0111
 Jupiter -85549-10-01 01:40 J -29525075.67 -29525075.43 -29525075.18 0.0513 0.0009
 Uranus -85548-01-18 03:35 J -29524966.51 -29524966.35 -29524966.16 0.0135 0.0092
 Uranus -85547-01-22 14:23 J -29524597.05 -29524596.90 -29524596.71 0.0136 0.0099
 Uranus -85546-01-26 12:13 J -29524228.17 -29524227.99 -29524227.78 0.0136 0.0083
 Uranus -85545-01-31 00:42 J -29523858.67 -29523858.47 -29523858.27 0.0137 0.0078
 Uranus -85544-02-02 23:30 J -29523489.71 -29523489.52 -29523489.30 0.0137 0.0073
 Uranus -85543-02-07 13:11 J -29523120.17 -29523119.95 -29523119.72 0.0138 0.0057
 Jupiter -85543-03-26 01:11 J -29523073.68 -29523073.45 -29523073.22 0.0516 0.0067
 Uranus -85542-02-11 13:40 J -29522751.15 -29522750.93 -29522750.71 0.0138 0.0062
 Saturn -85542-07-10 06:56 J -29522602.35 -29522602.21 -29522602.03 0.0283 0.0217
 Uranus -85541-02-16 04:47 J -29522381.53 -29522381.30 -29522381.06 0.0139 0.0038
 Saturn -85541-07-23 18:13 J -29522222.97 -29522222.74 -29522222.50 0.0285 0.0082
 Neptune -85541-09-25 08:23 J -29522159.29 -29522159.15 -29522158.96 0.0088 0.0069
 Uranus -85540-02-19 06:56 J -29522012.44 -29522012.21 -29522011.96 0.0140 0.0042
 Saturn -85540-08-07 13:25 J -29521843.18 -29521842.94 -29521842.70 0.0287 0.0060
 Neptune -85540-09-28 05:44 J -29521791.49 -29521791.26 -29521791.02 0.0088 0.0042
 Uranus -85539-02-23 23:59 J -29521642.74 -29521642.50 -29521642.25 0.0140 0.0022
 Saturn -85539-08-22 12:13 J -29521463.15 -29521462.99 -29521462.80 0.0288 0.0202
 Neptune -85539-09-30 12:28 J -29521424.22 -29521423.98 -29521423.72 0.0088 0.0018
 Uranus -85538-02-28 04:18 J -29521273.56 -29521273.32 -29521273.07 0.0141 0.0015
 Neptune -85538-10-03 07:54 J -29521056.43 -29521056.17 -29521055.89 0.0088 0.0009
 Uranus -85537-03-03 23:16 J -29520903.77 -29520903.53 -29520903.28 0.0141 0.0009
 Neptune -85537-10-04 16:47 J -29520689.03 -29520688.80 -29520688.56 0.0088 0.0034
 Jupiter -85537-10-05 23:16 J -29520687.70 -29520687.53 -29520687.35 0.0515 0.0331
 Uranus -85536-03-08 05:30 J -29520534.51 -29520534.27 -29520534.01 0.0142 0.0012
 Neptune -85536-10-07 08:08 J -29520321.34 -29520321.16 -29520320.94 0.0088 0.0061
 Uranus -85535-03-13 02:23 J -29520164.64 -29520164.40 -29520164.15 0.0143 0.0009
 Neptune -85535-10-09 21:35 J -29519953.64 -29519953.60 -29519953.51 0.0088 0.0086
 Uranus -85534-03-17 11:16 J -29519795.27 -29519795.03 -29519794.78 0.0143 0.0035

Pluto -85534-06-30 21:20 J -29519689.76 -29519689.61 -29519689.41 0.0067 0.0049
 Uranus -85533-03-21 09:49 J -29519425.32 -29519425.09 -29519424.85 0.0144 0.0036
 Pluto -85533-07-01 07:25 J -29519323.32 -29519323.19 -29519323.01 0.0067 0.0055
 Uranus -85532-03-25 22:32 J -29519055.79 -29519055.56 -29519055.32 0.0144 0.0050
 Jupiter -85531-03-30 15:35 J -29518686.05 -29518685.85 -29518685.66 0.0514 0.0243
 Uranus -85531-03-30 22:32 J -29518685.77 -29518685.56 -29518685.33 0.0145 0.0065 *
 Uranus -85530-04-04 15:06 J -29518316.09 -29518315.87 -29518315.63 0.0145 0.0064
 Uranus -85529-04-08 16:04 J -29517946.01 -29517945.83 -29517945.63 0.0146 0.0089
 Saturn -85528-01-05 14:23 J -29517674.02 -29517673.90 -29517673.76 0.0278 0.0227
 Uranus -85528-04-13 12:56 J -29517576.16 -29517575.96 -29517575.74 0.0146 0.0086
 Saturn -85527-01-17 21:20 J -29517296.81 -29517296.61 -29517296.40 0.0276 0.0119
 Uranus -85527-04-18 13:40 J -29517206.09 -29517205.93 -29517205.75 0.0146 0.0103
 Saturn -85526-01-29 20:08 J -29516919.90 -29516919.66 -29516919.42 0.0274 0.0017
 Uranus -85526-04-23 14:52 J -29516836.02 -29516835.88 -29516835.70 0.0147 0.0114
 Saturn -85525-02-10 07:25 J -29516543.42 -29516543.19 -29516542.95 0.0272 0.0079
 Uranus -85525-04-27 15:06 J -29516466.01 -29516465.87 -29516465.70 0.0147 0.0112
 Saturn -85524-02-20 18:28 J -29516166.90 -29516166.73 -29516166.55 0.0271 0.0183
 Uranus -85524-05-02 21:35 J -29516095.72 -29516095.60 -29516095.49 0.0147 0.0132
 Uranus -85523-05-07 20:23 J -29515725.77 -29515725.65 -29515725.51 0.0147 0.0126
 Uranus -85522-05-13 06:28 J -29515355.30 -29515355.23 -29515355.12 0.0147 0.0138
 Uranus -85521-05-17 05:30 J -29514985.29 -29514985.27 -29514985.22 0.0147 0.0146
 Uranus -85520-05-22 18:56 J -29514614.79 -29514614.71 -29514614.61 0.0147 0.0137
 Uranus -85518-06-02 09:06 J -29513874.16 -29513874.12 -29513874.04 0.0147 0.0143
 Uranus -85515-06-17 04:18 J -29512763.39 -29512763.32 -29512763.21 0.0146 0.0137
 Uranus -85513-06-26 22:04 J -29512022.67 -29512022.58 -29512022.46 0.0145 0.0134
 Saturn -85513-07-03 23:30 J -29512015.60 -29512015.52 -29512015.44 0.0282 0.0266
 Uranus -85512-07-02 03:20 J -29511652.45 -29511652.36 -29511652.22 0.0145 0.0128
 Saturn -85512-07-18 03:35 J -29511636.57 -29511636.35 -29511636.11 0.0284 0.0138
 Uranus -85511-07-07 14:23 J -29511281.99 -29511281.90 -29511281.77 0.0145 0.0131
 Saturn -85511-08-01 13:40 J -29511257.20 -29511256.93 -29511256.67 0.0286 0.0006

Uranus	-85510-07-12 16:18 J	-29510911.97	-29510911.82	-29510911.65	0.0144	0.0110
Saturn	-85510-08-16 05:44 J	-29510877.47	-29510877.26	-29510877.03	0.0288	0.0147
Uranus	-85509-07-17 04:47 J	-29510541.45	-29510541.30	-29510541.13	0.0144	0.0115
Saturn	-85509-08-30 03:06 J	-29510497.41	-29510497.37	-29510497.31	0.0289	0.0283
Uranus	-85508-07-22 03:35 J	-29510171.53	-29510171.35	-29510171.17	0.0143	0.0100
Uranus	-85507-07-27 15:35 J	-29509801.04	-29509800.85	-29509800.63	0.0142	0.0088
Mars	-85507-12-20 14:52 J	-29509654.94	-29509654.88	-29509654.82	0.1919	0.1809
Uranus	-85506-08-01 12:13 J	-29509431.18	-29509430.99	-29509430.77	0.0142	0.0089
Uranus	-85505-08-05 22:18 J	-29509060.79	-29509060.57	-29509060.33	0.0141	0.0065
Uranus	-85504-08-10 18:42 J	-29508690.96	-29508690.72	-29508690.48	0.0141	0.0067
Uranus	-85503-08-16 00:56 J	-29508320.69	-29508320.46	-29508320.21	0.0140	0.0052
Uranus	-85502-08-20 21:20 J	-29507950.86	-29507950.61	-29507950.34	0.0139	0.0038
Uranus	-85501-08-24 23:30 J	-29507580.76	-29507580.52	-29507580.28	0.0139	0.0036
Uranus	-85500-08-29 20:23 J	-29507210.92	-29507210.65	-29507210.38	0.0138	0.0012
Saturn	-85500-12-31 18:13 J	-29507086.75	-29507086.74	-29507086.72	0.0278	0.0278
Uranus	-85499-09-03 17:44 J	-29506841.01	-29506840.76	-29506840.51	0.0138	0.0013
Saturn	-85498-01-12 18:42 J	-29506709.91	-29506709.72	-29506709.52	0.0276	0.0168
Uranus	-85498-09-08 14:23 J	-29506471.17	-29506470.90	-29506470.63	0.0137	0.0003
Saturn	-85497-01-24 15:20 J	-29506333.09	-29506332.86	-29506332.63	0.0274	0.0064
Uranus	-85497-09-12 06:42 J	-29506101.47	-29506101.22	-29506100.96	0.0137	0.0014
Saturn	-85496-02-04 13:11 J	-29505956.18	-29505955.95	-29505955.72	0.0272	0.0035
Uranus	-85496-09-17 03:06 J	-29505731.64	-29505731.37	-29505731.10	0.0136	0.0016
Saturn	-85495-02-16 05:59 J	-29505579.45	-29505579.25	-29505579.04	0.0271	0.0135
Uranus	-85495-09-21 15:20 J	-29505362.10	-29505361.86	-29505361.61	0.0136	0.0039
Saturn	-85494-02-27 13:25 J	-29505203.03	-29505202.94	-29505202.82	0.0270	0.0243
Uranus	-85494-09-26 10:47 J	-29504992.31	-29504992.05	-29504991.79	0.0135	0.0035
Uranus	-85493-09-29 19:25 J	-29504622.91	-29504622.69	-29504622.45	0.0135	0.0055
Uranus	-85492-10-04 13:54 J	-29504253.15	-29504252.92	-29504252.67	0.0134	0.0057
Uranus	-85491-10-08 20:08 J	-29503883.87	-29503883.66	-29503883.42	0.0134	0.0064
Uranus	-85490-10-13 13:11 J	-29503514.14	-29503513.95	-29503513.72	0.0133	0.0080

Uranus	-85489-10-16 17:30 J	-29503144.97	-29503144.77	-29503144.55	0.0133	0.0075
Uranus	-85488-10-21 09:20 J	-29502775.27	-29502775.11	-29502774.91	0.0133	0.0096
Uranus	-85487-10-25 11:30 J	-29502406.21	-29502406.02	-29502405.83	0.0132	0.0089
Uranus	-85486-10-30 01:25 J	-29502036.58	-29502036.44	-29502036.26	0.0132	0.0103
Uranus	-85485-11-02 01:11 J	-29501667.59	-29501667.45	-29501667.28	0.0132	0.0104
Uranus	-85484-11-06 13:54 J	-29501298.05	-29501297.92	-29501297.75	0.0132	0.0107
Saturn	-85483-07-11 15:35 J	-29501051.02	-29501050.85	-29501050.67	0.0283	0.0197
Uranus	-85483-11-10 12:28 J	-29500929.09	-29500928.98	-29500928.88	0.0132	0.0119
Saturn	-85482-07-26 05:16 J	-29500671.52	-29500671.28	-29500671.04	0.0285	0.0060
Uranus	-85482-11-14 23:59 J	-29500559.64	-29500559.50	-29500559.37	0.0132	0.0111
Mars	-85481-06-20 00:42 J	-29500341.65	-29500341.47	-29500341.29	0.1630	0.0183
Saturn	-85481-08-08 23:16 J	-29500291.77	-29500291.53	-29500291.28	0.0287	0.0082
Uranus	-85481-11-17 20:37 J	-29500190.68	-29500190.64	-29500190.56	0.0131	0.0128
Saturn	-85480-08-23 18:56 J	-29499911.86	-29499911.71	-29499911.53	0.0288	0.0222
Uranus	-85480-11-22 07:25 J	-29499821.29	-29499821.19	-29499821.06	0.0131	0.0117
Uranus	-85479-11-26 03:35 J	-29499452.37	-29499452.35	-29499452.28	0.0131	0.0130
Jupiter	-85478-09-26 09:20 J	-29499148.30	-29499148.11	-29499147.90	0.0510	0.0301
Uranus	-85478-11-30 13:54 J	-29499082.99	-29499082.92	-29499082.83	0.0131	0.0125
Uranus	-85477-12-03 09:20 J	-29498714.15	-29498714.11	-29498714.03	0.0131	0.0128
Uranus	-85475-12-11 13:54 J	-29497975.98	-29497975.92	-29497975.81	0.0132	0.0123
Uranus	-85473-12-18 17:44 J	-29497237.85	-29497237.76	-29497237.63	0.0132	0.0119
Jupiter	-85472-03-20 12:28 J	-29497146.13	-29497145.98	-29497145.82	0.0519	0.0386
Uranus	-85472-12-23 02:23 J	-29496868.43	-29496868.40	-29496868.32	0.0132	0.0130
Uranus	-85471-12-26 22:04 J	-29496499.70	-29496499.58	-29496499.47	0.0133	0.0117
Uranus	-85470-12-31 06:42 J	-29496130.33	-29496130.22	-29496130.11	0.0133	0.0119
Saturn	-85469-01-07 20:37 J	-29496122.77	-29496122.64	-29496122.48	0.0278	0.0213
Uranus	-85468-01-03 01:54 J	-29495761.52	-29495761.42	-29495761.28	0.0133	0.0116
Saturn	-85468-01-19 02:08 J	-29495745.63	-29495745.41	-29495745.19	0.0276	0.0104
Uranus	-85467-01-07 10:47 J	-29495392.18	-29495392.05	-29495391.87	0.0134	0.0106
Saturn	-85467-01-30 19:11 J	-29495368.95	-29495368.70	-29495368.46	0.0274	0.0005

Uranus -85466-01-11 06:56 J -29495023.32 -29495023.21 -29495023.05 0.0134 0.0111
 Saturn -85466-02-11 07:54 J -29494992.39 -29494992.17 -29494991.94 0.0272 0.0094
 Jupiter -85466-10-01 05:01 J -29494760.52 -29494760.29 -29494760.05 0.0512 0.0032
 Uranus -85465-01-15 16:47 J -29494653.97 -29494653.80 -29494653.61 0.0135 0.0093
 Saturn -85465-02-23 00:56 J -29494615.60 -29494615.46 -29494615.30 0.0271 0.0202
 Uranus -85464-01-18 13:25 J -29494285.08 -29494284.94 -29494284.76 0.0135 0.0103
 Uranus -85463-01-23 00:28 J -29493915.67 -29493915.48 -29493915.28 0.0136 0.0083
 Uranus -85462-01-26 22:04 J -29493546.75 -29493546.58 -29493546.37 0.0136 0.0086
 Uranus -85461-01-31 10:32 J -29493177.27 -29493177.06 -29493176.85 0.0137 0.0073
 Uranus -85460-02-03 09:49 J -29492808.29 -29492808.09 -29492807.86 0.0137 0.0063
 Jupiter -85460-03-25 07:54 J -29492758.39 -29492758.17 -29492757.96 0.0517 0.0106
 Uranus -85459-02-07 23:16 J -29492438.74 -29492438.53 -29492438.30 0.0138 0.0063
 Neptune -85459-03-20 07:40 J -29492398.25 -29492398.18 -29492398.12 0.0089 0.0086
 Uranus -85458-02-12 00:13 J -29492069.72 -29492069.49 -29492069.25 0.0138 0.0042
 Neptune -85458-03-22 18:28 J -29492030.88 -29492030.73 -29492030.53 0.0089 0.0067
 Uranus -85457-02-16 15:20 J -29491700.09 -29491699.86 -29491699.63 0.0139 0.0047
 Neptune -85457-03-24 05:30 J -29491663.49 -29491663.27 -29491663.05 0.0089 0.0036
 Uranus -85456-02-19 17:30 J -29491331.01 -29491330.77 -29491330.53 0.0140 0.0023
 Neptune -85456-03-26 11:30 J -29491296.27 -29491296.02 -29491295.76 0.0089 0.0017
 Uranus -85455-02-24 10:18 J -29490961.31 -29490961.07 -29490960.82 0.0140 0.0023
 Neptune -85455-03-29 02:23 J -29490928.64 -29490928.40 -29490928.15 0.0089 0.0015
 Uranus -85454-02-28 14:23 J -29490592.15 -29490591.90 -29490591.66 0.0141 0.0009
 Neptune -85454-03-31 05:30 J -29490561.49 -29490561.27 -29490561.03 0.0089 0.0033
 Saturn -85454-07-06 04:47 J -29490464.41 -29490464.30 -29490464.16 0.0282 0.0247
 Jupiter -85454-10-06 06:28 J -29490372.42 -29490372.23 -29490372.03 0.0514 0.0293
 Uranus -85453-03-04 09:20 J -29490222.36 -29490222.11 -29490221.87 0.0141 0.0004
 Neptune -85453-04-01 22:18 J -29490193.74 -29490193.57 -29490193.39 0.0089 0.0065
 Saturn -85453-07-19 07:11 J -29490085.43 -29490085.20 -29490084.96 0.0284 0.0116
 Uranus -85452-03-08 15:35 J -29489853.10 -29489852.85 -29489852.60 0.0142 0.0005
 Neptune -85452-04-04 01:54 J -29489826.50 -29489826.42 -29489826.32 0.0089 0.0082

Saturn -85452-08-02 19:11 J -29489705.95 -29489705.70 -29489705.45 0.0286 0.0026
 Uranus -85451-03-13 12:42 J -29489483.21 -29489482.97 -29489482.73 0.0143 0.0029
 Saturn -85451-08-17 15:06 J -29489326.06 -29489325.87 -29489325.66 0.0288 0.0168
 Uranus -85450-03-17 21:35 J -29489113.84 -29489113.60 -29489113.35 0.0143 0.0026
 Uranus -85449-03-21 21:06 J -29488743.84 -29488743.62 -29488743.38 0.0144 0.0049
 Uranus -85448-03-26 08:52 J -29488374.36 -29488374.13 -29488373.89 0.0144 0.0054
 Jupiter -85448-03-29 19:11 J -29488370.92 -29488370.70 -29488370.49 0.0515 0.0217
 Pluto -85447-01-04 18:42 J -29488089.96 -29488089.72 -29488089.47 0.0078 0.0010
 Uranus -85447-03-31 09:49 J -29488004.31 -29488004.09 -29488003.87 0.0145 0.0062
 Uranus -85446-04-05 00:42 J -29487634.67 -29487634.47 -29487634.24 0.0145 0.0082
 Uranus -85445-04-09 02:23 J -29487264.59 -29487264.40 -29487264.19 0.0146 0.0079
 Uranus -85444-04-13 21:20 J -29486894.77 -29486894.61 -29486894.40 0.0146 0.0102
 Uranus -85443-04-18 23:30 J -29486524.68 -29486524.52 -29486524.34 0.0146 0.0104
 Uranus -85442-04-23 23:16 J -29486154.68 -29486154.53 -29486154.34 0.0147 0.0111
 Uranus -85441-04-28 00:42 J -29485784.57 -29485784.47 -29485784.33 0.0147 0.0127
 Saturn -85440-01-01 19:40 J -29485535.76 -29485535.68 -29485535.59 0.0278 0.0260
 Uranus -85440-05-03 05:30 J -29485414.40 -29485414.27 -29485414.10 0.0147 0.0119
 Saturn -85439-01-13 21:49 J -29485158.79 -29485158.59 -29485158.39 0.0276 0.0152
 Uranus -85439-05-08 06:28 J -29485044.30 -29485044.23 -29485044.14 0.0147 0.0139
 Saturn -85438-01-25 23:44 J -29484781.74 -29484781.51 -29484781.28 0.0274 0.0050
 Uranus -85438-05-13 15:35 J -29484673.92 -29484673.85 -29484673.74 0.0147 0.0137
 Saturn -85437-02-06 20:37 J -29484404.87 -29484404.64 -29484404.40 0.0272 0.0050
 Uranus -85437-05-17 15:35 J -29484303.92 -29484303.85 -29484303.77 0.0147 0.0140
 Saturn -85436-02-17 07:11 J -29484028.40 -29484028.20 -29484027.99 0.0271 0.0153
 Jupiter -85436-04-03 09:35 J -29483983.14 -29483983.10 -29483983.05 0.0512 0.0499
 Saturn -85435-02-28 15:20 J -29483651.91 -29483651.86 -29483651.79 0.0270 0.0261
 Uranus -85435-05-28 03:35 J -29483563.41 -29483563.35 -29483563.25 0.0147 0.0139
 Mars -85434-06-14 06:28 J -29483181.37 -29483181.23 -29483181.08 0.1616 0.1016
 Uranus -85433-06-06 18:56 J -29482822.72 -29482822.71 -29482822.67 0.0147 0.0146
 Uranus -85432-06-12 08:52 J -29482452.19 -29482452.13 -29482452.05 0.0146 0.0141

Uranus	-85430-06-22 23:30 J	-29481711.61	-29481711.52	-29481711.40	0.0146	0.0132
Uranus	-85429-06-27 05:44 J	-29481341.34	-29481341.26	-29481341.14	0.0145	0.0136
Uranus	-85428-07-02 12:56 J	-29480971.06	-29480970.96	-29480970.84	0.0145	0.0129
Mars	-85428-12-23 16:04 J	-29480797.01	-29480796.83	-29480796.65	0.1914	0.0190
Uranus	-85427-07-07 22:32 J	-29480600.72	-29480600.56	-29480600.39	0.0145	0.0114
Uranus	-85426-07-13 00:42 J	-29480230.58	-29480230.47	-29480230.31	0.0144	0.0121
Uranus	-85425-07-17 11:59 J	-29479860.17	-29479860.00	-29479859.79	0.0144	0.0101
Saturn	-85424-07-13 04:47 J	-29479499.48	-29479499.30	-29479499.09	0.0283	0.0178
Uranus	-85424-07-22 11:01 J	-29479490.21	-29479490.04	-29479489.84	0.0143	0.0098
Saturn	-85423-07-27 16:18 J	-29479120.07	-29479119.82	-29479119.57	0.0285	0.0040
Uranus	-85423-07-27 23:01 J	-29479119.73	-29479119.54	-29479119.32	0.0142	0.0090 *
Uranus	-85422-08-01 19:54 J	-29478749.89	-29478749.67	-29478749.43	0.0142	0.0070
Saturn	-85422-08-11 06:42 J	-29478740.46	-29478740.22	-29478739.98	0.0287	0.0104
Uranus	-85421-08-06 06:13 J	-29478379.45	-29478379.24	-29478379.01	0.0141	0.0074
Saturn	-85421-08-24 23:59 J	-29478360.63	-29478360.50	-29478360.35	0.0288	0.0243
Uranus	-85420-08-11 01:54 J	-29478009.65	-29478009.42	-29478009.16	0.0141	0.0052
Uranus	-85419-08-16 09:49 J	-29477639.33	-29477639.09	-29477638.85	0.0140	0.0047
Uranus	-85418-08-21 04:32 J	-29477269.56	-29477269.31	-29477269.04	0.0139	0.0038
Uranus	-85417-08-25 07:54 J	-29476899.42	-29476899.17	-29476898.91	0.0139	0.0018
Uranus	-85416-08-30 02:52 J	-29476529.65	-29476529.38	-29476529.11	0.0138	0.0020
Uranus	-85415-09-04 01:11 J	-29476159.70	-29476159.45	-29476159.19	0.0138	0.0004
Uranus	-85414-09-08 20:08 J	-29475789.93	-29475789.66	-29475789.39	0.0137	0.0005
Uranus	-85413-09-12 13:54 J	-29475420.17	-29475419.92	-29475419.66	0.0137	0.0016
Uranus	-85412-09-17 08:52 J	-29475050.39	-29475050.13	-29475049.86	0.0136	0.0032
Uranus	-85411-09-21 23:01 J	-29474680.78	-29474680.54	-29474680.29	0.0136	0.0031
Saturn	-85410-01-09 03:35 J	-29474571.51	-29474571.35	-29474571.18	0.0278	0.0195
Uranus	-85410-09-26 17:01 J	-29474311.02	-29474310.79	-29474310.53	0.0135	0.0053
Saturn	-85409-01-21 02:37 J	-29474194.62	-29474194.39	-29474194.15	0.0276	0.0091
Uranus	-85409-09-30 04:04 J	-29473941.57	-29473941.33	-29473941.10	0.0135	0.0050
Saturn	-85408-01-31 19:40 J	-29473817.92	-29473817.68	-29473817.45	0.0274	0.0010

Uranus	-85408-10-04 21:20 J	-29473571.83	-29473571.61	-29473571.36	0.0134	0.0064
Saturn	-85407-02-12 14:37 J	-29473441.10	-29473440.89	-29473440.68	0.0273	0.0112
Uranus	-85407-10-09 04:47 J	-29473202.51	-29473202.30	-29473202.08	0.0134	0.0072
Saturn	-85406-02-24 08:08 J	-29473064.29	-29473064.16	-29473064.01	0.0271	0.0218
Uranus	-85406-10-13 20:52 J	-29472832.83	-29472832.63	-29472832.39	0.0133	0.0074
Uranus	-85405-10-17 01:40 J	-29472463.61	-29472463.43	-29472463.24	0.0133	0.0092
Uranus	-85404-10-21 16:18 J	-29472094.00	-29472093.82	-29472093.59	0.0133	0.0086
Uranus	-85403-10-25 19:11 J	-29471724.85	-29471724.70	-29471724.54	0.0132	0.0104
Mars	-85402-06-23 02:37 J	-29471484.52	-29471484.39	-29471484.27	0.1633	0.1236
Uranus	-85402-10-30 08:08 J	-29471355.31	-29471355.16	-29471354.96	0.0132	0.0100
Uranus	-85401-11-02 09:06 J	-29470986.25	-29470986.12	-29470985.97	0.0132	0.0108
Uranus	-85400-11-06 21:35 J	-29470616.72	-29470616.60	-29470616.46	0.0132	0.0114
Uranus	-85399-11-10 20:23 J	-29470247.77	-29470247.65	-29470247.51	0.0132	0.0112
Uranus	-85398-11-15 07:25 J	-29469878.25	-29469878.19	-29469878.10	0.0132	0.0126
Uranus	-85397-11-18 05:01 J	-29469509.39	-29469509.29	-29469509.15	0.0132	0.0116
Uranus	-85396-11-22 15:20 J	-29469139.89	-29469139.86	-29469139.81	0.0131	0.0130
Saturn	-85395-07-07 10:47 J	-29468913.19	-29468913.05	-29468912.89	0.0282	0.0228
Jupiter	-85395-09-25 06:56 J	-29468833.37	-29468833.21	-29468833.04	0.0509	0.0348
Uranus	-85395-11-26 11:59 J	-29468771.08	-29468771.00	-29468770.89	0.0131	0.0121
Saturn	-85394-07-21 17:01 J	-29468534.02	-29468533.79	-29468533.55	0.0284	0.0098
Uranus	-85394-11-30 21:35 J	-29468401.64	-29468401.60	-29468401.55	0.0131	0.0129
Saturn	-85393-08-04 09:35 J	-29468154.34	-29468154.10	-29468153.86	0.0286	0.0046
Uranus	-85393-12-03 17:30 J	-29468032.80	-29468032.77	-29468032.70	0.0132	0.0129
Saturn	-85392-08-19 07:25 J	-29467774.36	-29467774.19	-29467774.00	0.0288	0.0190
Uranus	-85392-12-08 02:37 J	-29467663.45	-29467663.39	-29467663.29	0.0132	0.0125
Uranus	-85390-12-16 07:25 J	-29466925.29	-29466925.19	-29466925.07	0.0132	0.0118
Jupiter	-85389-03-19 23:30 J	-29466830.64	-29466830.52	-29466830.39	0.0520	0.0425
Uranus	-85389-12-19 03:20 J	-29466556.39	-29466556.36	-29466556.32	0.0132	0.0131
Uranus	-85388-12-23 11:01 J	-29466187.14	-29466187.04	-29466186.90	0.0132	0.0116
Uranus	-85387-12-27 06:56 J	-29465818.29	-29465818.21	-29465818.12	0.0133	0.0124

Uranus	-85386-12-31 14:37 J	-29465449.00	-29465448.89	-29465448.74	0.0133	0.0114
Uranus	-85384-01-03 11:01 J	-29465080.17	-29465080.04	-29465079.90	0.0133	0.0111
Uranus	-85383-01-07 19:25 J	-29464710.82	-29464710.69	-29464710.54	0.0134	0.0110
Jupiter	-85383-09-30 09:35 J	-29464445.34	-29464445.10	-29464444.86	0.0511	0.0073
Uranus	-85382-01-11 16:04 J	-29464341.99	-29464341.83	-29464341.65	0.0134	0.0096
Saturn	-85381-01-03 23:01 J	-29463984.65	-29463984.54	-29463984.42	0.0278	0.0242
Uranus	-85381-01-16 01:11 J	-29463972.59	-29463972.45	-29463972.27	0.0135	0.0104
Saturn	-85380-01-15 06:42 J	-29463607.41	-29463607.22	-29463607.01	0.0276	0.0137
Uranus	-85380-01-18 23:16 J	-29463603.71	-29463603.53	-29463603.33	0.0135	0.0084
Uranus	-85379-01-23 09:49 J	-29463234.27	-29463234.09	-29463233.90	0.0136	0.0090
Saturn	-85379-01-27 09:20 J	-29463230.34	-29463230.11	-29463229.87	0.0274	0.0036
Uranus	-85378-01-27 08:23 J	-29462865.33	-29462865.15	-29462864.93	0.0136	0.0074
Saturn	-85378-02-08 00:42 J	-29462853.71	-29462853.47	-29462853.23	0.0272	0.0064
Uranus	-85377-01-31 20:23 J	-29462495.87	-29462495.65	-29462495.44	0.0137	0.0069
Saturn	-85377-02-19 09:49 J	-29462477.27	-29462477.09	-29462476.89	0.0271	0.0169
Jupiter	-85377-03-24 11:44 J	-29462443.24	-29462443.01	-29462442.78	0.0517	0.0127
Neptune	-85377-09-25 01:40 J	-29462258.58	-29462258.43	-29462258.29	0.0088	0.0074
Uranus	-85376-02-03 20:08 J	-29462126.88	-29462126.66	-29462126.45	0.0137	0.0063
Neptune	-85376-09-27 08:23 J	-29461891.32	-29461891.15	-29461890.93	0.0088	0.0058
Uranus	-85375-02-08 08:37 J	-29461757.36	-29461757.14	-29461756.90	0.0138	0.0048
Neptune	-85375-09-30 03:49 J	-29461523.60	-29461523.34	-29461523.07	0.0088	0.0023
Uranus	-85374-02-12 09:49 J	-29461388.31	-29461388.09	-29461387.86	0.0138	0.0051
Neptune	-85374-10-02 14:23 J	-29461156.15	-29461155.90	-29461155.64	0.0088	0.0006
Uranus	-85373-02-17 00:28 J	-29461018.73	-29461018.48	-29461018.24	0.0139	0.0027
Neptune	-85373-10-04 04:32 J	-29460788.55	-29460788.31	-29460788.03	0.0088	0.0029
Uranus	-85372-02-20 03:06 J	-29460649.60	-29460649.37	-29460649.13	0.0140	0.0031
Neptune	-85372-10-06 19:25 J	-29460420.90	-29460420.69	-29460420.46	0.0088	0.0045
Uranus	-85371-02-24 19:54 J	-29460279.92	-29460279.67	-29460279.42	0.0140	0.0010
Jupiter	-85371-10-05 00:56 J	-29460057.67	-29460057.46	-29460057.26	0.0514	0.0255
Neptune	-85371-10-09 04:32 J	-29460053.41	-29460053.31	-29460053.16	0.0088	0.0079

Uranus	-85370-03-01 00:28 J	-29459910.72	-29459910.48	-29459910.24	0.0141	0.0005
Uranus	-85369-03-04 19:40 J	-29459540.93	-29459540.68	-29459540.44	0.0141	0.0003
Uranus	-85368-03-09 01:40 J	-29459171.66	-29459171.43	-29459171.18	0.0142	0.0022
Uranus	-85367-03-13 23:16 J	-29458801.78	-29458801.53	-29458801.29	0.0142	0.0020
Uranus	-85366-03-18 07:40 J	-29458432.41	-29458432.18	-29458431.94	0.0143	0.0046
Saturn	-85366-07-01 15:20 J	-29458326.87	-29458326.86	-29458326.81	0.0281	0.0279
Uranus	-85365-03-22 07:11 J	-29458062.42	-29458062.20	-29458061.96	0.0144	0.0046
Jupiter	-85365-03-29 01:54 J	-29458055.62	-29458055.42	-29458055.21	0.0515	0.0193
Saturn	-85365-07-14 17:59 J	-29457947.95	-29457947.75	-29457947.53	0.0283	0.0157
Uranus	-85364-03-26 18:42 J	-29457692.94	-29457692.72	-29457692.49	0.0144	0.0061
Saturn	-85364-07-29 01:40 J	-29457568.69	-29457568.43	-29457568.17	0.0285	0.0017
Uranus	-85363-03-31 20:08 J	-29457322.86	-29457322.66	-29457322.44	0.0145	0.0074
Saturn	-85363-08-12 14:37 J	-29457189.11	-29457188.89	-29457188.64	0.0287	0.0128
Uranus	-85362-04-05 11:01 J	-29456953.26	-29456953.04	-29456952.82	0.0145	0.0073
Saturn	-85362-08-27 10:18 J	-29456809.16	-29456809.07	-29456808.96	0.0288	0.0265
Uranus	-85361-04-09 13:40 J	-29456583.10	-29456582.93	-29456582.74	0.0146	0.0098
Uranus	-85360-04-14 07:25 J	-29456213.36	-29456213.19	-29456212.97	0.0146	0.0094
Uranus	-85359-04-19 10:47 J	-29455843.19	-29455843.05	-29455842.88	0.0146	0.0111
Uranus	-85358-04-24 09:20 J	-29455473.25	-29455473.11	-29455472.95	0.0147	0.0118
Uranus	-85357-04-28 11:59 J	-29455103.14	-29455103.00	-29455102.85	0.0147	0.0117
Uranus	-85356-05-03 14:52 J	-29454732.96	-29454732.88	-29454732.77	0.0147	0.0136
Uranus	-85355-05-08 16:18 J	-29454362.92	-29454362.82	-29454362.69	0.0147	0.0130
Mars	-85355-06-16 12:28 J	-29454324.16	-29454323.98	-29454323.80	0.1619	0.0758
Uranus	-85354-05-14 00:28 J	-29453992.53	-29453992.48	-29453992.39	0.0147	0.0142
Jupiter	-85353-04-02 13:11 J	-29453668.06	-29453667.95	-29453667.83	0.0512	0.0448
Uranus	-85353-05-18 01:11 J	-29453622.45	-29453622.45	-29453622.42	0.0147	0.0147
Uranus	-85352-05-23 13:25 J	-29453252.01	-29453251.94	-29453251.84	0.0147	0.0138
Saturn	-85351-01-10 07:40 J	-29453020.35	-29453020.18	-29453019.98	0.0278	0.0179
Saturn	-85350-01-22 05:16 J	-29452643.51	-29452643.28	-29452643.05	0.0276	0.0078
Uranus	-85350-06-03 03:49 J	-29452511.39	-29452511.34	-29452511.25	0.0147	0.0141

Saturn -85349-02-03 03:20 J -29452266.59 -29452266.36 -29452266.13 0.0274 0.0024
 Uranus -85349-06-07 04:32 J -29452141.33 -29452141.31 -29452141.29 0.0147 0.0146
 Mars -85349-12-26 12:56 J -29451939.11 -29451938.96 -29451938.79 0.1909 0.0955
 Saturn -85348-02-13 23:59 J -29451889.70 -29451889.50 -29451889.29 0.0273 0.0126
 Saturn -85347-02-25 11:59 J -29451513.12 -29451513.00 -29451512.88 0.0271 0.0234
 Uranus -85347-06-17 20:23 J -29451400.73 -29451400.65 -29451400.52 0.0146 0.0134
 Uranus -85346-06-23 08:23 J -29451030.18 -29451030.15 -29451030.08 0.0146 0.0143
 Uranus -85345-06-27 13:11 J -29450660.06 -29450659.95 -29450659.80 0.0145 0.0126
 Uranus -85344-07-02 21:35 J -29450289.72 -29450289.60 -29450289.45 0.0145 0.0122
 Uranus -85343-07-08 05:44 J -29449919.40 -29449919.26 -29449919.11 0.0145 0.0122
 Uranus -85342-07-13 09:49 J -29449549.26 -29449549.09 -29449548.90 0.0144 0.0102
 Uranus -85341-07-17 19:54 J -29449178.83 -29449178.67 -29449178.47 0.0143 0.0107
 Uranus -85340-07-22 20:08 J -29448808.84 -29448808.66 -29448808.44 0.0143 0.0090
 Uranus -85339-07-28 08:08 J -29448438.38 -29448438.16 -29448437.94 0.0142 0.0078
 Uranus -85338-08-02 04:32 J -29448068.52 -29448068.31 -29448068.08 0.0142 0.0078
 Uranus -85337-08-06 14:52 J -29447698.11 -29447697.88 -29447697.62 0.0141 0.0054
 Saturn -85336-07-08 23:01 J -29447361.69 -29447361.54 -29447361.36 0.0282 0.0209
 Uranus -85336-08-11 10:04 J -29447328.32 -29447328.08 -29447327.83 0.0141 0.0057
 Saturn -85335-07-23 09:35 J -29446982.33 -29446982.10 -29446981.86 0.0284 0.0075
 Uranus -85335-08-16 17:59 J -29446957.99 -29446957.75 -29446957.50 0.0140 0.0039
 Saturn -85334-08-07 03:06 J -29446602.61 -29446602.37 -29446602.13 0.0286 0.0068
 Uranus -85334-08-21 11:59 J -29446588.26 -29446588.00 -29446587.73 0.0139 0.0026
 Saturn -85333-08-20 23:16 J -29446222.70 -29446222.53 -29446222.36 0.0288 0.0209
 Uranus -85333-08-25 16:18 J -29446218.06 -29446217.82 -29446217.56 0.0139 0.0024
 Uranus -85332-08-30 10:18 J -29445848.34 -29445848.07 -29445847.80 0.0138 0.0001
 Uranus -85331-09-04 10:32 J -29445478.32 -29445478.06 -29445477.81 0.0138 0.0003
 Uranus -85330-09-09 03:49 J -29445108.61 -29445108.34 -29445108.07 0.0137 0.0015
 Uranus -85329-09-12 23:16 J -29444738.77 -29444738.53 -29444738.27 0.0137 0.0024
 Uranus -85328-09-17 16:32 J -29444369.07 -29444368.81 -29444368.54 0.0136 0.0028
 Uranus -85327-09-22 07:40 J -29443999.40 -29443999.18 -29443998.93 0.0135 0.0050

Uranus	-85326-09-27 00:28 J	-29443629.72	-29443629.48	-29443629.21	0.0135	0.0045
Uranus	-85325-09-30 12:28 J	-29443260.20	-29443259.98	-29443259.76	0.0134	0.0065
Uranus	-85324-10-05 04:32 J	-29442890.53	-29442890.31	-29442890.06	0.0134	0.0065
Mars	-85323-06-25 16:04 J	-29442626.84	-29442626.83	-29442626.83	0.1636	0.1635
Uranus	-85323-10-09 13:40 J	-29442521.14	-29442520.93	-29442520.72	0.0134	0.0074
Saturn	-85322-01-05 09:20 J	-29442433.23	-29442433.11	-29442432.96	0.0278	0.0226
Uranus	-85322-10-14 05:01 J	-29442151.49	-29442151.29	-29442151.09	0.0133	0.0087
Saturn	-85321-01-17 18:13 J	-29442055.95	-29442055.74	-29442055.52	0.0276	0.0120
Uranus	-85321-10-17 10:32 J	-29441782.24	-29441782.06	-29441781.85	0.0133	0.0084
Saturn	-85320-01-28 15:20 J	-29441679.11	-29441678.86	-29441678.62	0.0274	0.0021
Uranus	-85320-10-22 00:42 J	-29441412.61	-29441412.47	-29441412.28	0.0133	0.0103
Saturn	-85319-02-09 03:35 J	-29441302.57	-29441302.35	-29441302.11	0.0272	0.0079
Uranus	-85319-10-26 03:49 J	-29441043.49	-29441043.34	-29441043.15	0.0132	0.0096
Saturn	-85318-02-20 18:28 J	-29440925.89	-29440925.73	-29440925.56	0.0271	0.0185
Uranus	-85318-10-30 16:32 J	-29440673.94	-29440673.81	-29440673.64	0.0132	0.0110
Uranus	-85317-11-02 17:30 J	-29440304.89	-29440304.77	-29440304.61	0.0132	0.0109
Uranus	-85316-11-07 05:01 J	-29439935.40	-29439935.29	-29439935.13	0.0132	0.0113
Uranus	-85315-11-11 04:32 J	-29439566.38	-29439566.31	-29439566.20	0.0132	0.0123
Uranus	-85314-11-15 15:20 J	-29439196.98	-29439196.86	-29439196.73	0.0132	0.0115
Uranus	-85313-11-18 13:25 J	-29438827.94	-29438827.94	-29438827.88	0.0131	0.0131
Jupiter	-85312-09-24 12:13 J	-29438518.14	-29438517.99	-29438517.83	0.0509	0.0390
Uranus	-85312-11-22 23:16 J	-29438458.61	-29438458.53	-29438458.39	0.0131	0.0119
Uranus	-85311-11-26 21:20 J	-29438089.61	-29438089.61	-29438089.59	0.0131	0.0131
Uranus	-85310-12-01 06:13 J	-29437720.30	-29437720.24	-29437720.15	0.0131	0.0125
Uranus	-85309-12-04 03:20 J	-29437351.39	-29437351.36	-29437351.29	0.0132	0.0129
Uranus	-85308-12-08 11:16 J	-29436982.04	-29436982.03	-29436981.98	0.0132	0.0131
Saturn	-85307-07-03 05:01 J	-29436775.38	-29436775.29	-29436775.18	0.0281	0.0257
Uranus	-85307-12-12 07:40 J	-29436613.25	-29436613.18	-29436613.07	0.0132	0.0122
Jupiter	-85306-03-20 01:11 J	-29436515.55	-29436515.45	-29436515.33	0.0520	0.0459
Saturn	-85306-07-17 04:47 J	-29436396.52	-29436396.30	-29436396.06	0.0283	0.0133

Uranus -85306-12-16 15:20 J -29436243.88 -29436243.86 -29436243.81 0.0132 0.0130
 Saturn -85305-07-30 13:11 J -29436017.21 -29436016.95 -29436016.69 0.0285 0.0005
 Uranus -85305-12-19 11:30 J -29435875.12 -29435875.02 -29435874.88 0.0132 0.0116
 Saturn -85304-08-14 05:59 J -29435637.46 -29435637.25 -29435637.03 0.0287 0.0148
 Uranus -85304-12-23 19:11 J -29435505.77 -29435505.70 -29435505.62 0.0133 0.0126
 Saturn -85303-08-29 05:16 J -29435257.31 -29435257.28 -29435257.24 0.0288 0.0285
 Uranus -85303-12-27 15:20 J -29435136.97 -29435136.86 -29435136.72 0.0133 0.0113
 Uranus -85302-12-31 23:01 J -29434767.65 -29434767.54 -29434767.40 0.0133 0.0115
 Uranus -85300-01-03 20:23 J -29434398.79 -29434398.65 -29434398.51 0.0133 0.0109
 Jupiter -85300-09-29 05:16 J -29434130.51 -29434130.28 -29434130.05 0.0511 0.0108
 Uranus -85299-01-08 04:04 J -29434029.49 -29434029.33 -29434029.16 0.0134 0.0100
 Uranus -85298-01-12 01:54 J -29433660.57 -29433660.42 -29433660.27 0.0134 0.0104
 Uranus -85297-01-16 09:49 J -29433291.26 -29433291.09 -29433290.88 0.0135 0.0087
 Uranus -85296-01-19 08:23 J -29432922.30 -29432922.15 -29432921.96 0.0135 0.0095
 Uranus -85295-01-23 17:59 J -29432552.95 -29432552.75 -29432552.53 0.0136 0.0074
 Uranus -85294-01-27 17:30 J -29432183.96 -29432183.77 -29432183.56 0.0136 0.0076
 Neptune -85294-03-22 08:37 J -29432130.24 -29432130.14 -29432130.00 0.0089 0.0077
 Jupiter -85294-03-24 12:42 J -29432128.17 -29432127.97 -29432127.76 0.0517 0.0169
 Saturn -85294-12-31 07:11 J -29431846.25 -29431846.20 -29431846.12 0.0280 0.0270
 Uranus -85293-02-01 04:04 J -29431814.54 -29431814.33 -29431814.09 0.0137 0.0063
 Neptune -85293-03-23 14:37 J -29431763.10 -29431762.89 -29431762.66 0.0089 0.0045
 Saturn -85292-01-11 11:30 J -29431469.22 -29431469.02 -29431468.82 0.0278 0.0162
 Uranus -85292-02-04 05:01 J -29431445.50 -29431445.29 -29431445.06 0.0137 0.0054
 Neptune -85292-03-26 05:59 J -29431395.47 -29431395.25 -29431395.00 0.0089 0.0029
 Saturn -85291-01-23 13:40 J -29431092.15 -29431091.93 -29431091.70 0.0276 0.0061
 Uranus -85291-02-08 17:16 J -29431076.01 -29431075.78 -29431075.55 0.0138 0.0052
 Neptune -85291-03-28 09:20 J -29431028.36 -29431028.11 -29431027.86 0.0089 0.0004
 Saturn -85290-02-04 14:23 J -29430715.13 -29430714.90 -29430714.66 0.0274 0.0038
 Uranus -85290-02-12 19:11 J -29430706.93 -29430706.70 -29430706.46 0.0138 0.0033
 Neptune -85290-03-31 01:40 J -29430660.66 -29430660.43 -29430660.17 0.0089 0.0022

Saturn -85289-02-16 06:28 J -29430338.44 -29430338.23 -29430338.02 0.0272 0.0141
 Uranus -85289-02-17 09:20 J -29430337.35 -29430337.11 -29430336.87 0.0139 0.0036
 Neptune -85289-04-01 05:59 J -29430293.44 -29430293.25 -29430293.05 0.0089 0.0053
 Uranus -85288-02-20 12:28 J -29429968.22 -29429967.98 -29429967.73 0.0140 0.0013
 Saturn -85288-02-26 14:23 J -29429961.99 -29429961.90 -29429961.81 0.0271 0.0252
 Neptune -85288-04-03 19:54 J -29429925.80 -29429925.67 -29429925.50 0.0089 0.0072
 Pluto -85288-07-02 01:40 J -29429836.65 -29429836.43 -29429836.16 0.0067 0.0032
 Jupiter -85288-10-04 11:30 J -29429742.23 -29429742.02 -29429741.81 0.0513 0.0228
 Uranus -85287-02-25 04:32 J -29429598.56 -29429598.31 -29429598.06 0.0140 0.0013
 Uranus -85286-03-01 09:20 J -29429229.35 -29429229.11 -29429228.87 0.0141 0.0002
 Uranus -85285-03-05 03:49 J -29428859.59 -29428859.34 -29428859.09 0.0141 0.0014
 Uranus -85284-03-09 10:32 J -29428490.30 -29428490.06 -29428489.81 0.0142 0.0016
 Uranus -85283-03-14 07:54 J -29428120.40 -29428120.17 -29428119.92 0.0142 0.0040
 Uranus -85282-03-18 16:47 J -29427751.03 -29427750.80 -29427750.55 0.0143 0.0037
 Jupiter -85282-03-29 02:52 J -29427740.60 -29427740.38 -29427740.15 0.0515 0.0142
 Uranus -85281-03-22 17:01 J -29427381.01 -29427380.79 -29427380.56 0.0144 0.0060
 Uranus -85280-03-27 04:04 J -29427011.55 -29427011.33 -29427011.11 0.0144 0.0063
 Uranus -85279-04-01 05:44 J -29426641.46 -29426641.26 -29426641.04 0.0145 0.0072
 Uranus -85278-04-05 19:40 J -29426271.88 -29426271.68 -29426271.48 0.0145 0.0091
 Uranus -85277-04-09 22:32 J -29425901.74 -29425901.56 -29425901.35 0.0146 0.0088
 Saturn -85277-07-10 17:30 J -29425809.95 -29425809.77 -29425809.59 0.0282 0.0187
 Uranus -85276-04-14 15:49 J -29425532.00 -29425531.84 -29425531.67 0.0146 0.0110
 Mars -85276-06-19 02:08 J -29425466.61 -29425466.41 -29425466.21 0.1622 0.0358
 Saturn -85276-07-25 04:04 J -29425430.57 -29425430.33 -29425430.08 0.0285 0.0055
 Jupiter -85276-10-09 00:56 J -29425354.48 -29425354.46 -29425354.43 0.0515 0.0511
 Uranus -85275-04-19 19:54 J -29425161.82 -29425161.67 -29425161.50 0.0146 0.0110
 Saturn -85275-08-08 19:11 J -29425050.95 -29425050.70 -29425050.46 0.0287 0.0086
 Uranus -85274-04-24 17:16 J -29424791.92 -29424791.78 -29424791.61 0.0147 0.0118
 Saturn -85274-08-23 11:44 J -29424671.16 -29424671.01 -29424670.84 0.0288 0.0228
 Uranus -85273-04-28 21:49 J -29424421.70 -29424421.59 -29424421.49 0.0147 0.0131

Uranus	-85272-05-03 23:16 J	-29424051.65	-29424051.53	-29424051.37	0.0147	0.0124
Uranus	-85271-05-09 02:52 J	-29423681.42	-29423681.38	-29423681.32	0.0147	0.0144
Jupiter	-85270-04-02 11:01 J	-29423353.16	-29423353.04	-29423352.90	0.0514	0.0408
Uranus	-85270-05-14 09:49 J	-29423311.16	-29423311.09	-29423310.99	0.0147	0.0139
Uranus	-85269-05-18 11:44 J	-29422941.06	-29422941.01	-29422940.95	0.0147	0.0142
Uranus	-85267-05-28 23:30 J	-29422200.60	-29422200.52	-29422200.44	0.0147	0.0138
Uranus	-85265-06-07 13:25 J	-29421459.99	-29421459.94	-29421459.88	0.0147	0.0143
Uranus	-85264-06-13 03:49 J	-29421089.40	-29421089.34	-29421089.24	0.0147	0.0139
Saturn	-85263-01-06 23:16 J	-29420881.67	-29420881.53	-29420881.36	0.0278	0.0207
Uranus	-85263-06-18 05:01 J	-29420719.29	-29420719.29	-29420719.23	0.0146	0.0146
Saturn	-85262-01-19 03:06 J	-29420504.59	-29420504.37	-29420504.14	0.0276	0.0101
Uranus	-85262-06-23 18:28 J	-29420348.84	-29420348.73	-29420348.59	0.0146	0.0126
Saturn	-85261-01-30 19:25 J	-29420127.93	-29420127.69	-29420127.44	0.0274	0.0008
Uranus	-85261-06-27 21:49 J	-29419978.69	-29419978.59	-29419978.45	0.0145	0.0130
Saturn	-85260-02-10 12:13 J	-29419751.21	-29419750.99	-29419750.77	0.0272	0.0094
Uranus	-85260-07-03 07:40 J	-29419608.30	-29419608.18	-29419608.03	0.0145	0.0121
Saturn	-85259-02-22 06:42 J	-29419374.37	-29419374.22	-29419374.07	0.0271	0.0201
Uranus	-85259-07-08 13:54 J	-29419238.08	-29419237.92	-29419237.72	0.0145	0.0108
Uranus	-85258-07-13 18:56 J	-29418867.85	-29418867.71	-29418867.54	0.0144	0.0113
Uranus	-85257-07-18 04:04 J	-29418497.53	-29418497.33	-29418497.11	0.0143	0.0091
Uranus	-85256-07-23 05:01 J	-29418127.48	-29418127.29	-29418127.08	0.0143	0.0089
Uranus	-85255-07-28 15:35 J	-29417757.07	-29417756.85	-29417756.62	0.0142	0.0079
Uranus	-85254-08-02 12:56 J	-29417387.18	-29417386.96	-29417386.71	0.0142	0.0060
Uranus	-85253-08-06 23:16 J	-29417016.75	-29417016.53	-29417016.28	0.0141	0.0064
Uranus	-85252-08-11 18:28 J	-29416646.98	-29416646.73	-29416646.47	0.0141	0.0039
Uranus	-85251-08-17 02:52 J	-29416276.62	-29416276.38	-29416276.12	0.0140	0.0037
Uranus	-85250-08-21 19:40 J	-29415906.93	-29415906.68	-29415906.40	0.0139	0.0026
Uranus	-85249-08-26 00:56 J	-29415536.71	-29415536.46	-29415536.20	0.0139	0.0007
Saturn	-85248-07-04 15:20 J	-29415223.99	-29415223.86	-29415223.71	0.0281	0.0236
Uranus	-85248-08-30 17:16 J	-29415167.05	-29415166.78	-29415166.51	0.0138	0.0009

Saturn	-85247-07-18 17:16 J	-29414845.01	-29414844.78	-29414844.54	0.0284	0.0110
Uranus	-85247-09-04 18:13 J	-29414796.99	-29414796.74	-29414796.49	0.0138	0.0015
Saturn	-85246-08-02 05:44 J	-29414465.51	-29414465.26	-29414465.01	0.0286	0.0027
Uranus	-85246-09-09 10:04 J	-29414427.35	-29414427.08	-29414426.81	0.0137	0.0015
Saturn	-85245-08-16 01:54 J	-29414085.61	-29414085.42	-29414085.22	0.0287	0.0168
Uranus	-85245-09-13 07:25 J	-29414057.44	-29414057.19	-29414056.95	0.0136	0.0028
Uranus	-85244-09-17 23:01 J	-29413687.79	-29413687.54	-29413687.27	0.0136	0.0042
Uranus	-85243-09-22 16:32 J	-29413318.05	-29413317.81	-29413317.57	0.0135	0.0042
Uranus	-85242-09-27 07:54 J	-29412948.40	-29412948.17	-29412947.93	0.0135	0.0063
Uranus	-85241-09-30 21:06 J	-29412578.83	-29412578.62	-29412578.38	0.0134	0.0060
Uranus	-85240-10-05 12:13 J	-29412209.20	-29412208.99	-29412208.76	0.0134	0.0075
Uranus	-85239-10-09 21:35 J	-29411839.78	-29411839.60	-29411839.38	0.0134	0.0081
Uranus	-85238-10-14 11:30 J	-29411470.21	-29411470.02	-29411469.79	0.0133	0.0084
Uranus	-85237-10-17 18:13 J	-29411100.88	-29411100.74	-29411100.55	0.0133	0.0100
Uranus	-85236-10-22 06:56 J	-29410731.38	-29410731.21	-29410731.00	0.0133	0.0093
Uranus	-85235-10-26 11:30 J	-29410362.14	-29410362.02	-29410361.87	0.0132	0.0111
Saturn	-85234-01-01 12:42 J	-29410295.06	-29410294.97	-29410294.86	0.0279	0.0253
Uranus	-85234-10-30 23:01 J	-29409992.68	-29409992.54	-29409992.36	0.0132	0.0104
Saturn	-85233-01-13 20:08 J	-29409917.85	-29409917.66	-29409917.45	0.0277	0.0147
Uranus	-85233-11-03 01:40 J	-29409623.53	-29409623.43	-29409623.29	0.0132	0.0115
Saturn	-85232-01-25 01:54 J	-29409540.65	-29409540.42	-29409540.20	0.0275	0.0047
Uranus	-85232-11-07 12:28 J	-29409254.08	-29409253.98	-29409253.85	0.0132	0.0118
Saturn	-85231-02-05 22:18 J	-29409163.81	-29409163.57	-29409163.33	0.0274	0.0052
Uranus	-85231-11-11 13:25 J	-29408885.05	-29408884.94	-29408884.82	0.0132	0.0117
Saturn	-85230-02-17 09:06 J	-29408787.32	-29408787.12	-29408786.92	0.0272	0.0157
Uranus	-85230-11-15 22:32 J	-29408515.59	-29408515.56	-29408515.48	0.0131	0.0129
Saturn	-85229-02-28 21:06 J	-29408410.66	-29408410.62	-29408410.57	0.0271	0.0265
Mars	-85229-06-12 17:30 J	-29408305.83	-29408305.77	-29408305.70	0.1611	0.1508
Jupiter	-85229-09-23 07:40 J	-29408203.30	-29408203.18	-29408203.04	0.0508	0.0426
Uranus	-85229-11-18 22:04 J	-29408146.66	-29408146.58	-29408146.45	0.0131	0.0119

Uranus	-85227-11-27 05:30 J	-29407408.36	-29407408.27	-29407408.18	0.0131	0.0122
Uranus	-85226-12-01 13:11 J	-29407038.96	-29407038.95	-29407038.91	0.0131	0.0131
Uranus	-85225-12-04 11:16 J	-29406670.08	-29406670.03	-29406669.96	0.0132	0.0128
Uranus	-85224-12-08 18:13 J	-29406300.80	-29406300.74	-29406300.63	0.0132	0.0125
Jupiter	-85223-03-19 00:56 J	-29406200.49	-29406200.46	-29406200.43	0.0520	0.0514
Uranus	-85223-12-12 15:49 J	-29405931.86	-29405931.84	-29405931.78	0.0132	0.0130
Uranus	-85222-12-16 22:47 J	-29405562.66	-29405562.55	-29405562.42	0.0132	0.0116
Uranus	-85221-12-19 20:23 J	-29405193.71	-29405193.65	-29405193.59	0.0132	0.0128
Uranus	-85220-12-24 02:23 J	-29404824.53	-29404824.40	-29404824.25	0.0133	0.0112
Uranus	-85219-12-27 23:30 J	-29404455.59	-29404455.52	-29404455.40	0.0133	0.0121
Saturn	-85218-07-13 10:47 J	-29404258.25	-29404258.05	-29404257.84	0.0283	0.0166
Uranus	-85217-01-01 05:44 J	-29404086.38	-29404086.26	-29404086.09	0.0133	0.0109
Saturn	-85217-07-26 18:56 J	-29403878.97	-29403878.71	-29403878.45	0.0285	0.0032
Jupiter	-85217-09-28 10:04 J	-29403815.30	-29403815.08	-29403814.85	0.0510	0.0146
Uranus	-85216-01-04 03:49 J	-29403717.46	-29403717.34	-29403717.18	0.0133	0.0107
Saturn	-85216-08-10 07:40 J	-29403499.42	-29403499.18	-29403498.93	0.0287	0.0108
Uranus	-85215-01-08 10:32 J	-29403348.21	-29403348.06	-29403347.88	0.0134	0.0103
Saturn	-85215-08-25 00:56 J	-29403119.59	-29403119.46	-29403119.33	0.0288	0.0248
Uranus	-85214-01-12 09:20 J	-29402979.26	-29402979.11	-29402978.91	0.0134	0.0091
Uranus	-85213-01-16 17:16 J	-29402609.95	-29402609.78	-29402609.59	0.0135	0.0096
Neptune	-85213-09-24 05:44 J	-29402358.31	-29402358.26	-29402358.20	0.0088	0.0086
Uranus	-85212-01-19 17:30 J	-29402240.97	-29402240.77	-29402240.57	0.0135	0.0077
Neptune	-85212-09-26 23:30 J	-29401990.70	-29401990.52	-29401990.32	0.0088	0.0064
Uranus	-85211-01-24 01:40 J	-29401871.62	-29401871.43	-29401871.22	0.0136	0.0082
Jupiter	-85211-03-23 16:04 J	-29401813.04	-29401812.83	-29401812.61	0.0519	0.0206
Neptune	-85211-09-29 10:47 J	-29401623.27	-29401623.05	-29401622.80	0.0088	0.0037
Uranus	-85210-01-28 02:23 J	-29401502.61	-29401502.40	-29401502.18	0.0136	0.0063
Neptune	-85210-10-01 23:59 J	-29401255.76	-29401255.50	-29401255.22	0.0088	0.0014
Uranus	-85209-02-01 11:59 J	-29401133.23	-29401133.00	-29401132.77	0.0137	0.0061
Neptune	-85209-10-03 16:32 J	-29400888.05	-29400887.81	-29400887.55	0.0088	0.0014

Uranus -85208-02-04 13:25 J -29400764.16 -29400763.94 -29400763.72 0.0137 0.0052
 Neptune -85208-10-06 01:25 J -29400520.67 -29400520.44 -29400520.18 0.0088 0.0038
 Uranus -85207-02-09 00:13 J -29400394.73 -29400394.49 -29400394.24 0.0138 0.0039
 Neptune -85207-10-08 21:06 J -29400152.78 -29400152.62 -29400152.43 0.0088 0.0065
 Uranus -85206-02-13 02:52 J -29400025.60 -29400025.38 -29400025.14 0.0138 0.0041
 Neptune -85206-10-11 03:06 J -29399785.37 -29399785.37 -29399785.33 0.0088 0.0088
 Uranus -85205-02-17 16:04 J -29399656.08 -29399655.83 -29399655.58 0.0139 0.0017
 Jupiter -85205-10-03 00:28 J -29399427.71 -29399427.48 -29399427.25 0.0512 0.0178
 Saturn -85204-01-08 09:49 J -29399330.26 -29399330.09 -29399329.91 0.0278 0.0189
 Uranus -85204-02-20 20:23 J -29399286.89 -29399286.65 -29399286.41 0.0140 0.0021
 Saturn -85203-01-20 08:08 J -29398953.39 -29398953.16 -29398952.92 0.0276 0.0087
 Uranus -85203-02-25 11:44 J -29398917.26 -29398917.01 -29398916.76 0.0140 0.0002
 Saturn -85202-02-01 03:35 J -29398576.58 -29398576.35 -29398576.11 0.0274 0.0011
 Uranus -85202-03-01 17:44 J -29398548.00 -29398547.76 -29398547.52 0.0141 0.0005
 Pluto -85201-01-07 04:04 J -29398236.57 -29398236.33 -29398236.07 0.0078 0.0015
 Saturn -85201-02-13 00:56 J -29398199.67 -29398199.46 -29398199.25 0.0272 0.0111
 Uranus -85201-03-05 11:44 J -29398178.25 -29398178.01 -29398177.75 0.0141 0.0015
 Saturn -85200-02-23 16:04 J -29397822.96 -29397822.83 -29397822.67 0.0271 0.0215
 Uranus -85200-03-09 19:11 J -29397808.93 -29397808.70 -29397808.46 0.0142 0.0032
 Uranus -85199-03-14 16:04 J -29397439.07 -29397438.83 -29397438.58 0.0142 0.0031
 Jupiter -85199-03-28 02:37 J -29397425.61 -29397425.39 -29397425.18 0.0516 0.0109
 Uranus -85198-03-19 00:56 J -29397069.67 -29397069.46 -29397069.23 0.0143 0.0057
 Uranus -85197-03-23 00:28 J -29396699.70 -29396699.48 -29396699.24 0.0144 0.0055
 Mars -85197-06-21 10:18 J -29396609.24 -29396609.07 -29396608.90 0.1625 0.0643
 Uranus -85196-03-27 11:16 J -29396330.23 -29396330.03 -29396329.80 0.0144 0.0072
 Uranus -85195-04-01 13:25 J -29395960.13 -29395959.94 -29395959.73 0.0145 0.0082
 Uranus -85194-04-06 02:52 J -29395590.58 -29395590.38 -29395590.17 0.0145 0.0083
 Uranus -85193-04-10 06:42 J -29395220.37 -29395220.22 -29395220.03 0.0146 0.0107
 Jupiter -85193-10-08 01:54 J -29395039.51 -29395039.42 -29395039.32 0.0514 0.0464
 Uranus -85192-04-14 23:30 J -29394850.70 -29394850.52 -29394850.33 0.0146 0.0100

Uranus	-85191-04-20 04:18 J	-29394480.44	-29394480.32	-29394480.16	0.0146	0.0120
Uranus	-85190-04-25 00:13 J	-29394110.61	-29394110.49	-29394110.33	0.0147	0.0123
Uranus	-85189-04-29 05:44 J	-29393740.38	-29393740.26	-29393740.12	0.0147	0.0123
Saturn	-85189-07-06 04:32 J	-29393672.45	-29393672.31	-29393672.14	0.0282	0.0217
Uranus	-85188-05-04 05:59 J	-29393370.30	-29393370.25	-29393370.16	0.0147	0.0141
Saturn	-85188-07-20 11:30 J	-29393293.25	-29393293.02	-29393292.78	0.0284	0.0087
Jupiter	-85187-04-01 23:01 J	-29393037.70	-29393037.54	-29393037.38	0.0514	0.0366
Uranus	-85187-05-09 10:32 J	-29393000.14	-29393000.06	-29392999.93	0.0147	0.0134
Saturn	-85187-08-04 02:37 J	-29392913.63	-29392913.39	-29392913.15	0.0286	0.0050
Uranus	-85186-05-14 16:32 J	-29392629.84	-29392629.81	-29392629.77	0.0147	0.0146
Saturn	-85186-08-18 22:04 J	-29392533.76	-29392533.58	-29392533.38	0.0287	0.0189
Uranus	-85184-05-24 05:30 J	-29391889.32	-29391889.27	-29391889.16	0.0147	0.0141
Uranus	-85182-06-03 20:52 J	-29391148.69	-29391148.63	-29391148.53	0.0147	0.0139
Uranus	-85181-06-07 21:06 J	-29390778.63	-29390778.62	-29390778.57	0.0147	0.0146
Uranus	-85180-06-13 11:44 J	-29390408.03	-29390408.01	-29390407.94	0.0147	0.0145
Uranus	-85179-06-18 12:13 J	-29390038.08	-29390037.99	-29390037.84	0.0146	0.0130
Uranus	-85178-06-24 01:54 J	-29389667.48	-29389667.42	-29389667.32	0.0146	0.0138
Uranus	-85177-06-28 04:18 J	-29389297.46	-29389297.32	-29389297.15	0.0145	0.0119
Uranus	-85176-07-03 15:20 J	-29388926.98	-29388926.86	-29388926.69	0.0145	0.0117
Saturn	-85175-01-02 23:16 J	-29388743.65	-29388743.53	-29388743.41	0.0279	0.0237
Uranus	-85175-07-08 20:37 J	-29388556.80	-29388556.64	-29388556.47	0.0145	0.0114
Saturn	-85174-01-15 09:49 J	-29388366.30	-29388366.09	-29388365.89	0.0277	0.0131
Uranus	-85174-07-14 03:49 J	-29388186.52	-29388186.34	-29388186.14	0.0144	0.0094
Saturn	-85173-01-27 11:44 J	-29387989.25	-29387989.01	-29387988.77	0.0275	0.0029
Uranus	-85173-07-18 11:30 J	-29387816.20	-29387816.02	-29387815.81	0.0143	0.0098
Saturn	-85172-02-07 01:54 J	-29387612.66	-29387612.42	-29387612.18	0.0273	0.0068
Uranus	-85172-07-23 13:54 J	-29387446.11	-29387445.92	-29387445.69	0.0143	0.0079
Saturn	-85171-02-18 14:37 J	-29387236.07	-29387235.89	-29387235.70	0.0272	0.0173
Uranus	-85171-07-28 23:44 J	-29387075.74	-29387075.51	-29387075.27	0.0142	0.0069
Uranus	-85170-08-02 21:35 J	-29386705.82	-29386705.60	-29386705.36	0.0142	0.0067

Uranus	-85169-08-07 07:11 J	-29386335.44	-29386335.20	-29386334.94	0.0141	0.0043
Uranus	-85168-08-12 02:08 J	-29385965.65	-29385965.41	-29385965.16	0.0141	0.0046
Uranus	-85167-08-17 10:32 J	-29385595.32	-29385595.06	-29385594.80	0.0140	0.0026
Uranus	-85166-08-22 03:20 J	-29385225.63	-29385225.36	-29385225.10	0.0139	0.0016
Uranus	-85165-08-26 09:06 J	-29384855.38	-29384855.12	-29384854.86	0.0139	0.0012
Uranus	-85164-08-31 00:42 J	-29384485.74	-29384485.47	-29384485.20	0.0138	0.0011
Uranus	-85163-09-05 03:06 J	-29384115.63	-29384115.37	-29384115.11	0.0138	0.0007
Uranus	-85162-09-09 17:30 J	-29383746.02	-29383745.77	-29383745.49	0.0137	0.0028
Uranus	-85161-09-13 16:18 J	-29383376.07	-29383375.82	-29383375.57	0.0136	0.0034
Saturn	-85160-06-30 22:18 J	-29383085.62	-29383085.57	-29383085.49	0.0281	0.0270
Uranus	-85160-09-18 06:13 J	-29383006.48	-29383006.24	-29383005.97	0.0136	0.0041
Saturn	-85159-07-14 22:04 J	-29382706.80	-29382706.58	-29382706.35	0.0283	0.0145
Uranus	-85159-09-23 00:42 J	-29382636.69	-29382636.47	-29382636.23	0.0135	0.0059
Saturn	-85158-07-29 04:18 J	-29382327.58	-29382327.32	-29382327.06	0.0285	0.0009
Uranus	-85158-09-27 14:23 J	-29382267.13	-29382266.90	-29382266.64	0.0135	0.0055
Saturn	-85157-08-11 18:42 J	-29381947.94	-29381947.72	-29381947.48	0.0287	0.0130
Uranus	-85157-10-01 05:16 J	-29381897.47	-29381897.28	-29381897.05	0.0134	0.0076
Saturn	-85156-08-26 16:18 J	-29381567.91	-29381567.82	-29381567.72	0.0289	0.0265
Uranus	-85156-10-05 18:56 J	-29381527.93	-29381527.71	-29381527.48	0.0134	0.0073
Uranus	-85155-10-10 06:28 J	-29381158.41	-29381158.23	-29381158.02	0.0134	0.0085
Uranus	-85154-10-14 18:56 J	-29380788.88	-29380788.71	-29380788.50	0.0133	0.0095
Uranus	-85153-10-18 03:20 J	-29380419.51	-29380419.36	-29380419.16	0.0133	0.0093
Uranus	-85152-10-22 14:52 J	-29380050.01	-29380049.88	-29380049.71	0.0133	0.0110
Uranus	-85151-10-26 20:23 J	-29379680.79	-29379680.65	-29379680.47	0.0132	0.0102
Mars	-85150-06-15 19:25 J	-29379448.86	-29379448.69	-29379448.51	0.1613	0.0545
Uranus	-85150-10-31 06:42 J	-29379311.33	-29379311.22	-29379311.08	0.0132	0.0116
Uranus	-85149-11-03 10:32 J	-29378942.18	-29378942.06	-29378941.93	0.0132	0.0113
Uranus	-85148-11-07 19:25 J	-29378572.79	-29378572.69	-29378572.56	0.0132	0.0119
Uranus	-85147-11-11 21:35 J	-29378203.66	-29378203.60	-29378203.53	0.0132	0.0126
Jupiter	-85146-09-23 12:42 J	-29377888.06	-29377887.97	-29377887.87	0.0507	0.0466

Uranus -85146-11-16 05:59 J -29377834.35 -29377834.25 -29377834.13 0.0131 0.0119
 Saturn -85145-01-10 15:20 J -29377779.04 -29377778.86 -29377778.65 0.0278 0.0174
 Saturn -85144-01-21 15:20 J -29377402.09 -29377401.86 -29377401.63 0.0276 0.0071
 Uranus -85144-11-23 14:23 J -29377095.98 -29377095.90 -29377095.77 0.0131 0.0121
 Mars -85144-12-23 05:44 J -29377066.47 -29377066.26 -29377066.05 0.1922 0.0042
 Saturn -85143-02-02 15:35 J -29377025.08 -29377024.85 -29377024.62 0.0274 0.0026
 Saturn -85142-02-14 11:01 J -29376648.25 -29376648.04 -29376647.83 0.0272 0.0125
 Uranus -85142-12-01 21:20 J -29376357.67 -29376357.61 -29376357.51 0.0131 0.0125
 Saturn -85141-02-25 20:23 J -29376271.77 -29376271.65 -29376271.52 0.0271 0.0231
 Uranus -85141-12-04 20:08 J -29375988.68 -29375988.66 -29375988.59 0.0131 0.0130
 Uranus -85140-12-09 01:54 J -29375619.46 -29375619.42 -29375619.34 0.0132 0.0128
 Uranus -85139-12-13 00:13 J -29375250.56 -29375250.49 -29375250.37 0.0132 0.0121
 Uranus -85138-12-17 05:44 J -29374881.31 -29374881.26 -29374881.18 0.0132 0.0127
 Uranus -85137-12-20 04:04 J -29374512.43 -29374512.33 -29374512.18 0.0132 0.0113
 Uranus -85136-12-24 09:20 J -29374143.19 -29374143.11 -29374143.00 0.0132 0.0123
 Uranus -85135-12-28 08:23 J -29373774.28 -29373774.15 -29373774.00 0.0133 0.0108
 Jupiter -85134-09-28 01:25 J -29373500.66 -29373500.44 -29373500.21 0.0509 0.0187
 Uranus -85133-01-01 13:40 J -29373405.05 -29373404.93 -29373404.77 0.0133 0.0111
 Uranus -85132-01-04 13:11 J -29373036.09 -29373035.95 -29373035.78 0.0133 0.0102
 Uranus -85131-01-08 18:56 J -29372666.89 -29372666.71 -29372666.53 0.0134 0.0095
 Uranus -85130-01-12 18:42 J -29372297.87 -29372297.72 -29372297.54 0.0134 0.0097
 Neptune -85130-03-21 18:42 J -29372229.80 -29372229.72 -29372229.59 0.0089 0.0081
 Saturn -85130-07-08 20:52 J -29372120.79 -29372120.63 -29372120.44 0.0282 0.0198
 Uranus -85129-01-17 00:56 J -29371928.66 -29371928.46 -29371928.25 0.0135 0.0080
 Neptune -85129-03-23 10:47 J -29371862.23 -29371862.05 -29371861.87 0.0089 0.0062
 Saturn -85129-07-22 06:28 J -29371741.46 -29371741.23 -29371740.98 0.0284 0.0066
 Uranus -85128-01-20 01:25 J -29371559.61 -29371559.44 -29371559.24 0.0135 0.0086
 Jupiter -85128-03-22 17:16 J -29371497.98 -29371497.78 -29371497.58 0.0519 0.0237
 Neptune -85128-03-25 13:25 J -29371495.17 -29371494.94 -29371494.70 0.0089 0.0032
 Saturn -85128-08-05 20:52 J -29371361.87 -29371361.63 -29371361.38 0.0286 0.0072

Uranus -85127-01-24 08:23 J -29371190.37 -29371190.15 -29371189.92 0.0136 0.0065
 Neptune -85127-03-28 05:44 J -29371127.51 -29371127.26 -29371127.00 0.0089 0.0013
 Saturn -85127-08-20 13:40 J -29370982.09 -29370981.93 -29370981.74 0.0288 0.0208
 Uranus -85126-01-28 10:04 J -29370821.28 -29370821.08 -29370820.86 0.0136 0.0069
 Neptune -85126-03-30 09:49 J -29370760.33 -29370760.09 -29370759.84 0.0089 0.0018
 Uranus -85125-02-01 18:13 J -29370451.96 -29370451.74 -29370451.49 0.0137 0.0053
 Neptune -85125-03-31 22:47 J -29370392.77 -29370392.55 -29370392.29 0.0089 0.0037
 Uranus -85124-02-04 21:20 J -29370082.83 -29370082.61 -29370082.38 0.0137 0.0047
 Neptune -85124-04-03 07:25 J -29370025.33 -29370025.19 -29370025.02 0.0089 0.0067
 Uranus -85123-02-09 07:11 J -29369713.44 -29369713.20 -29369712.95 0.0138 0.0042
 Neptune -85123-04-05 16:32 J -29369657.87 -29369657.81 -29369657.72 0.0089 0.0086
 Uranus -85122-02-13 11:30 J -29369344.26 -29369344.02 -29369343.79 0.0138 0.0023
 Jupiter -85122-10-03 05:44 J -29369112.48 -29369112.26 -29369112.04 0.0512 0.0147
 Uranus -85121-02-17 23:01 J -29368974.78 -29368974.54 -29368974.28 0.0139 0.0026
 Uranus -85120-02-21 04:18 J -29368605.56 -29368605.32 -29368605.08 0.0140 0.0003
 Uranus -85119-02-25 18:28 J -29368235.98 -29368235.73 -29368235.48 0.0140 0.0004
 Uranus -85118-03-02 01:11 J -29367866.69 -29367866.45 -29367866.21 0.0141 0.0014
 Uranus -85117-03-05 17:59 J -29367496.99 -29367496.75 -29367496.49 0.0141 0.0024
 Saturn -85116-01-04 12:56 J -29367192.10 -29367191.96 -29367191.82 0.0279 0.0222
 Uranus -85116-03-10 02:23 J -29367127.63 -29367127.40 -29367127.16 0.0142 0.0028
 Jupiter -85116-03-27 12:13 J -29367110.22 -29367109.99 -29367109.77 0.0516 0.0073
 Saturn -85115-01-16 20:52 J -29366814.85 -29366814.63 -29366814.41 0.0277 0.0116
 Uranus -85115-03-14 22:32 J -29366757.79 -29366757.56 -29366757.32 0.0142 0.0051
 Saturn -85114-01-28 16:32 J -29366438.06 -29366437.81 -29366437.57 0.0275 0.0016
 Uranus -85114-03-19 08:23 J -29366388.38 -29366388.15 -29366387.92 0.0143 0.0047
 Saturn -85113-02-09 06:56 J -29366061.43 -29366061.21 -29366060.98 0.0273 0.0082
 Uranus -85113-03-23 07:25 J -29366018.40 -29366018.19 -29366017.96 0.0144 0.0071
 Saturn -85112-02-20 00:56 J -29365684.62 -29365684.46 -29365684.29 0.0272 0.0189
 Uranus -85112-03-27 18:28 J -29365648.93 -29365648.73 -29365648.51 0.0144 0.0072
 Uranus -85111-04-01 20:23 J -29365278.85 -29365278.65 -29365278.44 0.0145 0.0082

Uranus	-85110-04-06 09:20 J	-29364909.28	-29364909.11	-29364908.92	0.0145	0.0099
Jupiter	-85110-10-08 04:32 J	-29364724.44	-29364724.31	-29364724.16	0.0514	0.0423
Uranus	-85109-04-10 13:25 J	-29364539.12	-29364538.94	-29364538.75	0.0146	0.0095
Uranus	-85108-04-15 05:01 J	-29364169.43	-29364169.29	-29364169.13	0.0146	0.0118
Uranus	-85107-04-20 11:01 J	-29363799.18	-29363799.04	-29363798.88	0.0146	0.0115
Uranus	-85106-04-25 05:59 J	-29363429.37	-29363429.25	-29363429.10	0.0147	0.0125
Uranus	-85105-04-29 12:42 J	-29363059.04	-29363058.97	-29363058.86	0.0147	0.0136
Jupiter	-85104-03-31 17:01 J	-29362722.97	-29362722.79	-29362722.61	0.0514	0.0314
Uranus	-85104-05-04 11:59 J	-29362689.10	-29362689.00	-29362688.85	0.0147	0.0129
Uranus	-85102-05-14 22:32 J	-29361948.62	-29361948.56	-29361948.47	0.0147	0.0141
Uranus	-85101-05-19 03:06 J	-29361578.39	-29361578.37	-29361578.32	0.0147	0.0146
Saturn	-85101-07-02 06:42 J	-29361534.32	-29361534.22	-29361534.09	0.0281	0.0251
Saturn	-85100-07-16 05:44 J	-29361155.49	-29361155.26	-29361155.02	0.0283	0.0124
Uranus	-85099-05-29 14:23 J	-29360837.98	-29360837.90	-29360837.81	0.0147	0.0139
Saturn	-85099-07-30 15:20 J	-29360776.11	-29360775.86	-29360775.61	0.0285	0.0013
Saturn	-85098-08-14 10:04 J	-29360396.29	-29360396.08	-29360395.87	0.0287	0.0151
Uranus	-85097-06-08 03:35 J	-29360097.42	-29360097.35	-29360097.27	0.0147	0.0140
Saturn	-85097-08-28 10:04 J	-29360016.13	-29360016.08	-29360016.04	0.0289	0.0283
Uranus	-85096-06-13 18:13 J	-29359726.82	-29359726.74	-29359726.63	0.0147	0.0136
Uranus	-85095-06-18 18:42 J	-29359356.78	-29359356.72	-29359356.64	0.0146	0.0141
Uranus	-85094-06-24 09:20 J	-29358986.24	-29358986.11	-29358985.95	0.0146	0.0120
Uranus	-85093-06-28 11:01 J	-29358616.17	-29358616.04	-29358615.91	0.0146	0.0126
Uranus	-85092-07-03 23:30 J	-29358245.67	-29358245.52	-29358245.36	0.0145	0.0113
Uranus	-85091-07-09 02:52 J	-29357875.56	-29357875.38	-29357875.18	0.0145	0.0102
Uranus	-85090-07-14 11:30 J	-29357505.19	-29357505.02	-29357504.85	0.0144	0.0104
Uranus	-85089-07-18 17:16 J	-29357134.99	-29357134.78	-29357134.54	0.0144	0.0081
Uranus	-85088-07-23 21:35 J	-29356764.81	-29356764.60	-29356764.39	0.0143	0.0080
Saturn	-85088-12-30 16:47 J	-29356604.87	-29356604.80	-29356604.71	0.0280	0.0263
Uranus	-85087-07-29 05:16 J	-29356394.50	-29356394.28	-29356394.03	0.0142	0.0068
Saturn	-85086-01-11 22:04 J	-29356227.77	-29356227.58	-29356227.38	0.0277	0.0158

Uranus	-85086-08-03 04:47 J	-29356024.53	-29356024.30	-29356024.05	0.0142	0.0051
Saturn	-85085-01-24 02:23 J	-29355850.62	-29355850.40	-29355850.17	0.0275	0.0058
Uranus	-85085-08-07 14:08 J	-29355654.16	-29355653.91	-29355653.66	0.0141	0.0053
Saturn	-85084-02-04 02:08 J	-29355473.65	-29355473.41	-29355473.18	0.0273	0.0040
Uranus	-85084-08-12 09:35 J	-29355284.35	-29355284.10	-29355283.84	0.0141	0.0028
Saturn	-85083-02-15 14:37 J	-29355097.09	-29355096.89	-29355096.67	0.0272	0.0141
Uranus	-85083-08-17 17:44 J	-29354914.01	-29354913.76	-29354913.50	0.0140	0.0026
Saturn	-85082-02-26 23:30 J	-29354720.61	-29354720.52	-29354720.42	0.0270	0.0247
Uranus	-85082-08-22 10:18 J	-29354544.33	-29354544.07	-29354543.81	0.0139	0.0012
Uranus	-85081-08-26 16:18 J	-29354174.08	-29354173.82	-29354173.56	0.0139	0.0005
Uranus	-85080-08-31 06:56 J	-29353804.47	-29353804.21	-29353803.94	0.0138	0.0003
Uranus	-85079-09-05 10:04 J	-29353434.33	-29353434.08	-29353433.83	0.0138	0.0026
Uranus	-85078-09-09 23:44 J	-29353064.77	-29353064.51	-29353064.24	0.0137	0.0025
Uranus	-85077-09-13 23:44 J	-29352694.74	-29352694.51	-29352694.26	0.0136	0.0040
Uranus	-85076-09-18 12:56 J	-29352325.20	-29352324.96	-29352324.70	0.0136	0.0052
Uranus	-85075-09-23 09:20 J	-29351955.34	-29351955.11	-29351954.87	0.0135	0.0053
Uranus	-85074-09-27 21:49 J	-29351585.80	-29351585.59	-29351585.35	0.0135	0.0073
Uranus	-85073-10-01 14:37 J	-29351216.11	-29351215.89	-29351215.67	0.0134	0.0068
Uranus	-85072-10-06 01:54 J	-29350846.61	-29350846.42	-29350846.19	0.0134	0.0085
Mars	-85071-06-17 16:18 J	-29350591.99	-29350591.82	-29350591.64	0.1615	0.0312
Saturn	-85071-07-10 12:28 J	-29350569.16	-29350568.98	-29350568.78	0.0282	0.0180
Uranus	-85071-10-10 14:52 J	-29350477.06	-29350476.88	-29350476.69	0.0134	0.0088
Saturn	-85070-07-24 19:54 J	-29350189.92	-29350189.67	-29350189.42	0.0284	0.0046
Uranus	-85070-10-15 01:40 J	-29350107.62	-29350107.43	-29350107.24	0.0133	0.0093
Saturn	-85069-08-07 06:42 J	-29349810.46	-29349810.22	-29349809.96	0.0286	0.0094
Uranus	-85069-10-18 11:16 J	-29349738.17	-29349738.03	-29349737.88	0.0133	0.0106
Saturn	-85068-08-21 22:32 J	-29349430.71	-29349430.56	-29349430.39	0.0288	0.0229
Uranus	-85068-10-22 20:37 J	-29349368.80	-29349368.64	-29349368.44	0.0133	0.0100
Uranus	-85067-10-27 04:32 J	-29348999.43	-29348999.31	-29348999.20	0.0132	0.0117
Uranus	-85066-10-31 12:56 J	-29348630.08	-29348629.96	-29348629.78	0.0132	0.0110

Uranus -85065-11-03 18:28 J -29348260.80 -29348260.73 -29348260.62 0.0132 0.0122
 Mars -85065-12-26 17:16 J -29348207.94 -29348207.78 -29348207.61 0.1917 0.0990
 Uranus -85064-11-08 02:37 J -29347891.47 -29347891.39 -29347891.27 0.0132 0.0122
 Jupiter -85063-09-22 06:13 J -29347573.25 -29347573.24 -29347573.20 0.0507 0.0503
 Uranus -85063-11-12 05:59 J -29347522.31 -29347522.25 -29347522.14 0.0132 0.0123
 Uranus -85062-11-16 13:25 J -29347152.95 -29347152.94 -29347152.90 0.0131 0.0131
 Uranus -85061-11-19 15:20 J -29346783.93 -29346783.86 -29346783.75 0.0131 0.0121
 Uranus -85059-11-27 22:18 J -29346045.63 -29346045.57 -29346045.46 0.0131 0.0123
 Saturn -85057-01-06 23:30 J -29345640.67 -29345640.52 -29345640.35 0.0278 0.0204
 Uranus -85057-12-05 04:04 J -29345307.37 -29345307.33 -29345307.24 0.0131 0.0127
 Saturn -85056-01-18 00:56 J -29345263.69 -29345263.46 -29345263.23 0.0276 0.0103
 Uranus -85056-12-09 09:20 J -29344938.19 -29344938.11 -29344938.02 0.0132 0.0124
 Saturn -85055-01-29 19:25 J -29344886.93 -29344886.69 -29344886.45 0.0274 0.0004
 Uranus -85055-12-13 09:06 J -29344569.17 -29344569.12 -29344569.04 0.0132 0.0127
 Saturn -85054-02-10 15:20 J -29344510.07 -29344509.86 -29344509.64 0.0273 0.0098
 Uranus -85054-12-17 13:11 J -29344200.05 -29344199.95 -29344199.80 0.0132 0.0115
 Saturn -85053-02-22 09:35 J -29344133.24 -29344133.10 -29344132.93 0.0271 0.0204
 Uranus -85053-12-20 13:25 J -29343831.01 -29343830.94 -29343830.85 0.0132 0.0125
 Uranus -85052-12-24 16:32 J -29343461.93 -29343461.81 -29343461.64 0.0132 0.0109
 Jupiter -85051-09-27 10:18 J -29343185.28 -29343185.07 -29343184.86 0.0509 0.0206
 Uranus -85051-12-28 16:47 J -29343092.89 -29343092.80 -29343092.67 0.0133 0.0117
 Uranus -85049-01-01 20:23 J -29342723.79 -29342723.65 -29342723.46 0.0133 0.0102
 Uranus -85048-01-04 21:35 J -29342354.75 -29342354.60 -29342354.45 0.0133 0.0102
 Neptune -85048-09-26 07:54 J -29342090.31 -29342090.17 -29342089.99 0.0088 0.0069
 Uranus -85047-01-09 01:25 J -29341985.60 -29341985.44 -29341985.25 0.0134 0.0096
 Neptune -85047-09-28 19:54 J -29341722.87 -29341722.67 -29341722.43 0.0088 0.0052
 Uranus -85046-01-13 03:20 J -29341616.53 -29341616.36 -29341616.17 0.0134 0.0086
 Neptune -85046-10-01 13:40 J -29341355.17 -29341354.93 -29341354.67 0.0088 0.0018
 Uranus -85045-01-17 07:54 J -29341247.34 -29341247.17 -29341246.96 0.0135 0.0089
 Jupiter -85045-03-22 02:23 J -29341182.60 -29341182.40 -29341182.20 0.0519 0.0267

Neptune -85045-10-02 21:49 J -29340987.86 -29340987.59 -29340987.32 0.0088 0.0001
 Uranus -85044-01-20 10:32 J -29340878.25 -29340878.06 -29340877.84 0.0135 0.0069
 Neptune -85044-10-05 17:44 J -29340620.00 -29340619.76 -29340619.51 0.0088 0.0033
 Uranus -85043-01-24 16:04 J -29340509.04 -29340508.83 -29340508.61 0.0136 0.0074
 Neptune -85043-10-07 23:44 J -29340252.71 -29340252.51 -29340252.27 0.0088 0.0049
 Uranus -85042-01-28 18:56 J -29340139.92 -29340139.71 -29340139.48 0.0136 0.0054
 Pluto -85042-07-03 22:18 J -29339983.81 -29339983.57 -29339983.30 0.0067 0.0021
 Saturn -85042-07-04 10:32 J -29339983.19 -29339983.06 -29339982.90 0.0281 0.0234
 Neptune -85042-10-10 19:25 J -29339884.75 -29339884.69 -29339884.56 0.0088 0.0083
 Uranus -85041-02-02 01:40 J -29339770.66 -29339770.43 -29339770.19 0.0137 0.0054
 Saturn -85041-07-17 14:08 J -29339604.13 -29339603.91 -29339603.67 0.0283 0.0108
 Uranus -85040-02-05 05:30 J -29339401.49 -29339401.27 -29339401.04 0.0137 0.0043
 Saturn -85040-08-01 04:32 J -29339224.55 -29339224.31 -29339224.06 0.0286 0.0031
 Uranus -85039-02-09 13:54 J -29339032.17 -29339031.92 -29339031.67 0.0138 0.0031
 Saturn -85039-08-16 00:56 J -29338844.65 -29338844.46 -29338844.25 0.0287 0.0170
 Jupiter -85039-10-02 05:16 J -29338797.52 -29338797.28 -29338797.04 0.0511 0.0115
 Uranus -85038-02-13 19:11 J -29338662.93 -29338662.70 -29338662.46 0.0138 0.0030
 Uranus -85037-02-18 05:30 J -29338293.52 -29338293.27 -29338293.01 0.0139 0.0008
 Uranus -85036-02-21 12:28 J -29337924.22 -29337923.98 -29337923.74 0.0139 0.0011
 Uranus -85035-02-26 01:40 J -29337554.68 -29337554.43 -29337554.18 0.0140 0.0012
 Uranus -85034-03-02 09:49 J -29337185.33 -29337185.09 -29337184.85 0.0141 0.0014
 Uranus -85033-03-06 01:40 J -29336815.67 -29336815.43 -29336815.17 0.0141 0.0026
 Jupiter -85033-03-26 06:42 J -29336795.45 -29336795.22 -29336794.99 0.0518 0.0033
 Uranus -85032-03-10 10:47 J -29336446.27 -29336446.05 -29336445.81 0.0142 0.0042
 Uranus -85031-03-15 05:44 J -29336076.50 -29336076.26 -29336076.02 0.0142 0.0042
 Uranus -85030-03-19 15:49 J -29335707.05 -29335706.84 -29335706.62 0.0143 0.0067
 Uranus -85029-03-23 13:40 J -29335337.14 -29335336.93 -29335336.69 0.0144 0.0064
 Saturn -85029-12-31 22:04 J -29335053.69 -29335053.58 -29335053.46 0.0279 0.0244
 Uranus -85028-03-28 01:11 J -29334967.63 -29334967.45 -29334967.23 0.0144 0.0082
 Saturn -85027-01-13 07:54 J -29334676.36 -29334676.17 -29334675.97 0.0277 0.0142

Uranus	-85027-04-02 03:06 J	-29334597.57	-29334597.37	-29334597.17	0.0145	0.0089
Jupiter	-85027-10-07 01:11 J	-29334409.60	-29334409.45	-29334409.30	0.0513	0.0383
Saturn	-85026-01-25 12:56 J	-29334299.19	-29334298.96	-29334298.73	0.0275	0.0044
Uranus	-85026-04-06 16:04 J	-29334228.01	-29334227.83	-29334227.63	0.0145	0.0092
Saturn	-85025-02-06 06:28 J	-29333922.47	-29333922.23	-29333921.98	0.0273	0.0055
Uranus	-85025-04-10 20:37 J	-29333857.79	-29333857.64	-29333857.48	0.0146	0.0114
Saturn	-85024-02-16 16:04 J	-29333546.01	-29333545.83	-29333545.62	0.0272	0.0157
Uranus	-85024-04-15 11:44 J	-29333488.16	-29333488.01	-29333487.83	0.0146	0.0107
Mars	-85024-06-11 06:42 J	-29333431.29	-29333431.22	-29333431.14	0.1605	0.1465
Saturn	-85023-02-28 06:28 J	-29333169.27	-29333169.23	-29333169.17	0.0270	0.0262
Uranus	-85023-04-20 18:13 J	-29333117.85	-29333117.74	-29333117.61	0.0146	0.0127
Uranus	-85022-04-25 12:13 J	-29332748.10	-29332747.99	-29332747.85	0.0147	0.0127
Jupiter	-85021-03-31 03:20 J	-29332407.54	-29332407.36	-29332407.17	0.0516	0.0277
Uranus	-85021-04-29 20:08 J	-29332377.77	-29332377.66	-29332377.54	0.0147	0.0129
Uranus	-85020-05-04 17:44 J	-29332007.78	-29332007.76	-29332007.70	0.0147	0.0145
Uranus	-85019-05-10 01:11 J	-29331637.52	-29331637.45	-29331637.33	0.0147	0.0136
Uranus	-85016-05-24 17:01 J	-29330526.84	-29330526.79	-29330526.70	0.0147	0.0141
Uranus	-85014-06-04 08:23 J	-29329786.23	-29329786.15	-29329786.05	0.0147	0.0137
Uranus	-85013-06-08 09:49 J	-29329416.11	-29329416.09	-29329416.03	0.0147	0.0145
Saturn	-85013-06-27 23:01 J	-29329396.54	-29329396.54	-29329396.50	0.0280	0.0280
Uranus	-85012-06-13 23:59 J	-29329045.56	-29329045.50	-29329045.41	0.0147	0.0140
Saturn	-85012-07-11 22:04 J	-29329017.78	-29329017.58	-29329017.36	0.0283	0.0161
Uranus	-85011-06-19 00:28 J	-29328675.60	-29328675.48	-29328675.34	0.0146	0.0126
Saturn	-85011-07-26 02:08 J	-29328638.68	-29328638.41	-29328638.15	0.0285	0.0026
Uranus	-85010-06-24 14:52 J	-29328304.97	-29328304.88	-29328304.76	0.0146	0.0133
Saturn	-85010-08-09 12:56 J	-29328259.19	-29328258.96	-29328258.72	0.0287	0.0115
Uranus	-85009-06-28 15:49 J	-29327935.00	-29327934.84	-29327934.66	0.0145	0.0112
Saturn	-85009-08-23 07:40 J	-29327879.29	-29327879.18	-29327879.04	0.0288	0.0249
Uranus	-85008-07-04 05:30 J	-29327564.42	-29327564.27	-29327564.10	0.0145	0.0112
Uranus	-85007-07-09 07:54 J	-29327194.34	-29327194.17	-29327193.98	0.0145	0.0106

Uranus	-85006-07-14 18:13 J	-29326823.92	-29326823.74	-29326823.52	0.0144	0.0087
Uranus	-85005-07-18 23:01 J	-29326453.74	-29326453.54	-29326453.31	0.0144	0.0090
Uranus	-85004-07-24 04:47 J	-29326083.51	-29326083.30	-29326083.07	0.0143	0.0068
Uranus	-85003-07-29 11:16 J	-29325713.26	-29325713.03	-29325712.77	0.0142	0.0061
Uranus	-85002-08-03 11:44 J	-29325343.23	-29325343.01	-29325342.76	0.0142	0.0056
Uranus	-85001-08-07 19:54 J	-29324972.93	-29324972.67	-29324972.41	0.0141	0.0033

85TH MILLENNIUM BCE

This is a list of transits of Moon in the 85th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-85000-08-12 15:49 J	-29324603.08	-29324602.84	-29324602.58	0.0141	0.0036		
Uranus	-84999-08-17 23:30 J	-29324232.78	-29324232.52	-29324232.25	0.0140	0.0014		
Saturn	-84998-01-08 04:04 J	-29324089.51	-29324089.33	-29324089.15	0.0278	0.0188		
Uranus	-84998-08-22 16:32 J	-29323863.07	-29323862.81	-29323862.55	0.0140	0.0006		
Saturn	-84997-01-20 02:52 J	-29323712.60	-29323712.38	-29323712.14	0.0276	0.0091		
Uranus	-84997-08-26 23:01 J	-29323492.80	-29323492.54	-29323492.28	0.0139	0.0001		
Saturn	-84996-01-31 02:08 J	-29323335.64	-29323335.41	-29323335.18	0.0274	0.0009		
Uranus	-84996-08-31 13:25 J	-29323123.19	-29323122.94	-29323122.67	0.0138	0.0023		
Saturn	-84995-02-11 23:30 J	-29322958.73	-29322958.52	-29322958.31	0.0272	0.0110		
Uranus	-84995-09-05 17:44 J	-29322753.01	-29322752.76	-29322752.50	0.0138	0.0018		
Saturn	-84994-02-23 11:44 J	-29322582.16	-29322582.01	-29322581.86	0.0271	0.0216		
Uranus	-84994-09-10 06:42 J	-29322383.46	-29322383.22	-29322382.95	0.0137	0.0040		
Uranus	-84993-09-14 07:40 J	-29322013.41	-29322013.18	-29322012.93	0.0137	0.0044		

Mars	-84992-06-19 17:44 J	-29321734.93	-29321734.76	-29321734.58	0.1618	0.0762
Uranus	-84992-09-18 19:25 J	-29321643.92	-29321643.69	-29321643.43	0.0136	0.0053
Uranus	-84991-09-23 17:01 J	-29321274.01	-29321273.79	-29321273.57	0.0135	0.0069
Uranus	-84990-09-28 04:18 J	-29320904.55	-29320904.32	-29320904.08	0.0135	0.0064
Uranus	-84989-10-01 21:49 J	-29320534.76	-29320534.59	-29320534.37	0.0135	0.0086
Uranus	-84988-10-06 08:23 J	-29320165.35	-29320165.15	-29320164.93	0.0134	0.0081
Uranus	-84987-10-10 23:01 J	-29319795.71	-29319795.54	-29319795.35	0.0134	0.0095
Uranus	-84986-10-15 08:08 J	-29319426.31	-29319426.16	-29319425.96	0.0133	0.0102
Uranus	-84985-10-18 19:54 J	-29319056.82	-29319056.67	-29319056.49	0.0133	0.0101
Uranus	-84984-10-23 04:04 J	-29318687.43	-29318687.33	-29318687.17	0.0133	0.0116
Saturn	-84983-07-05 16:32 J	-29318431.96	-29318431.81	-29318431.64	0.0281	0.0216
Uranus	-84983-10-27 12:56 J	-29318318.08	-29318317.96	-29318317.80	0.0132	0.0108
Saturn	-84982-07-19 23:59 J	-29318052.72	-29318052.50	-29318052.26	0.0284	0.0089
Uranus	-84982-10-31 20:52 J	-29317948.73	-29317948.63	-29317948.53	0.0132	0.0123
Saturn	-84981-08-02 14:52 J	-29317673.12	-29317672.88	-29317672.63	0.0286	0.0050
Uranus	-84981-11-04 03:06 J	-29317579.46	-29317579.37	-29317579.24	0.0132	0.0118
Saturn	-84980-08-17 08:37 J	-29317293.32	-29317293.14	-29317292.93	0.0288	0.0188
Uranus	-84980-11-08 09:35 J	-29317210.16	-29317210.10	-29317210.00	0.0132	0.0125
Uranus	-84979-11-12 14:52 J	-29316840.91	-29316840.88	-29316840.82	0.0132	0.0129
Uranus	-84978-11-16 20:52 J	-29316471.71	-29316471.63	-29316471.52	0.0131	0.0123
Uranus	-84976-11-24 05:59 J	-29315733.34	-29315733.25	-29315733.15	0.0131	0.0122
Uranus	-84974-12-02 12:42 J	-29314995.05	-29314994.97	-29314994.88	0.0131	0.0124
Uranus	-84973-12-05 13:54 J	-29314625.94	-29314625.92	-29314625.86	0.0132	0.0130
Uranus	-84972-12-09 16:47 J	-29314256.86	-29314256.80	-29314256.70	0.0132	0.0125
Uranus	-84971-12-13 17:59 J	-29313887.83	-29313887.75	-29313887.63	0.0132	0.0120
Uranus	-84970-12-17 20:37 J	-29313518.70	-29313518.64	-29313518.53	0.0132	0.0124
Saturn	-84969-01-03 05:16 J	-29313502.40	-29313502.28	-29313502.14	0.0279	0.0228
Uranus	-84969-12-20 22:32 J	-29313149.69	-29313149.56	-29313149.43	0.0132	0.0110
Saturn	-84968-01-14 16:47 J	-29313125.01	-29313124.80	-29313124.60	0.0277	0.0126
Jupiter	-84968-09-26 10:47 J	-29312870.27	-29312870.05	-29312869.83	0.0508	0.0227

Uranus -84968-12-25 00:42 J -29312780.56 -29312780.47 -29312780.34 0.0132 0.0120
 Saturn -84967-01-26 15:49 J -29312748.08 -29312747.84 -29312747.59 0.0275 0.0031
 Uranus -84967-12-29 02:52 J -29312411.52 -29312411.38 -29312411.22 0.0133 0.0103
 Saturn -84966-02-07 05:44 J -29312371.49 -29312371.26 -29312371.02 0.0273 0.0066
 Uranus -84965-01-02 05:30 J -29312042.40 -29312042.27 -29312042.10 0.0133 0.0107
 Saturn -84965-02-18 20:37 J -29311994.81 -29311994.64 -29311994.45 0.0271 0.0170
 Neptune -84965-03-22 17:16 J -29311961.91 -29311961.78 -29311961.63 0.0089 0.0073
 Uranus -84964-01-05 08:08 J -29311673.32 -29311673.16 -29311672.99 0.0133 0.0096
 Neptune -84964-03-25 09:06 J -29311594.33 -29311594.12 -29311593.88 0.0089 0.0041
 Uranus -84963-01-09 10:32 J -29311304.23 -29311304.06 -29311303.85 0.0134 0.0091
 Neptune -84963-03-27 13:54 J -29311227.14 -29311226.92 -29311226.67 0.0089 0.0024
 Uranus -84962-01-13 13:25 J -29310935.11 -29310934.94 -29310934.75 0.0134 0.0089
 Jupiter -84962-03-21 22:32 J -29310867.74 -29310867.56 -29310867.37 0.0521 0.0298
 Neptune -84962-03-30 03:06 J -29310859.63 -29310859.37 -29310859.11 0.0089 0.0007
 Uranus -84961-01-17 16:32 J -29310566.01 -29310565.81 -29310565.58 0.0135 0.0074
 Neptune -84961-03-31 11:44 J -29310492.23 -29310492.01 -29310491.76 0.0089 0.0026
 Uranus -84960-01-20 19:54 J -29310196.85 -29310196.67 -29310196.47 0.0135 0.0078
 Neptune -84960-04-02 19:11 J -29310124.88 -29310124.70 -29310124.48 0.0089 0.0057
 Uranus -84959-01-24 23:44 J -29309827.72 -29309827.51 -29309827.26 0.0136 0.0057
 Neptune -84959-04-05 09:06 J -29309757.23 -29309757.12 -29309756.97 0.0089 0.0075
 Uranus -84958-01-29 04:32 J -29309458.51 -29309458.31 -29309458.08 0.0136 0.0061
 Uranus -84957-02-02 10:04 J -29309089.31 -29309089.08 -29309088.83 0.0137 0.0043
 Uranus -84956-02-05 15:49 J -29308720.06 -29308719.84 -29308719.61 0.0137 0.0039
 Jupiter -84956-10-01 05:30 J -29308482.50 -29308482.27 -29308482.04 0.0510 0.0081
 Pluto -84955-01-08 01:11 J -29308383.68 -29308383.45 -29308383.19 0.0078 0.0027
 Uranus -84955-02-09 23:01 J -29308350.79 -29308350.54 -29308350.29 0.0138 0.0031
 Uranus -84954-02-14 05:44 J -29307981.50 -29307981.26 -29307981.02 0.0138 0.0014
 Saturn -84954-06-30 02:23 J -29307845.48 -29307845.40 -29307845.30 0.0280 0.0260
 Uranus -84953-02-18 14:37 J -29307612.14 -29307611.89 -29307611.63 0.0139 0.0015
 Saturn -84953-07-12 22:47 J -29307466.77 -29307466.55 -29307466.32 0.0283 0.0140

Uranus	-84952-02-21 22:32 J	-29307242.80	-29307242.56	-29307242.32	0.0139	0.0009
Saturn	-84952-07-27 04:32 J	-29307087.56	-29307087.31	-29307087.05	0.0285	0.0008
Uranus	-84951-02-26 10:04 J	-29306873.33	-29306873.08	-29306872.82	0.0140	0.0006
Saturn	-84951-08-10 20:08 J	-29306707.88	-29306707.66	-29306707.44	0.0287	0.0131
Uranus	-84950-03-02 19:11 J	-29306503.93	-29306503.70	-29306503.46	0.0141	0.0025
Jupiter	-84950-03-26 21:35 J	-29306479.82	-29306479.60	-29306479.38	0.0518	0.0008
Saturn	-84950-08-25 18:42 J	-29306327.80	-29306327.72	-29306327.61	0.0289	0.0265
Uranus	-84949-03-06 09:35 J	-29306134.34	-29306134.10	-29306133.84	0.0141	0.0033
Uranus	-84948-03-10 20:08 J	-29305764.89	-29305764.66	-29305764.43	0.0142	0.0039
Uranus	-84947-03-15 13:40 J	-29305395.15	-29305394.93	-29305394.69	0.0142	0.0061
Uranus	-84946-03-20 01:11 J	-29305025.66	-29305025.45	-29305025.22	0.0143	0.0058
Uranus	-84945-03-23 22:04 J	-29304655.77	-29304655.58	-29304655.35	0.0144	0.0081
Mars	-84945-06-13 11:59 J	-29304574.15	-29304574.00	-29304573.86	0.1607	0.1112
Uranus	-84944-03-28 10:32 J	-29304286.25	-29304286.06	-29304285.84	0.0144	0.0080
Jupiter	-84944-10-06 09:35 J	-29304094.28	-29304094.10	-29304093.92	0.0513	0.0343
Uranus	-84943-04-02 11:01 J	-29303916.22	-29303916.04	-29303915.83	0.0145	0.0092
Uranus	-84942-04-07 00:42 J	-29303546.63	-29303546.47	-29303546.30	0.0145	0.0106
Uranus	-84941-04-11 04:32 J	-29303176.49	-29303176.31	-29303176.13	0.0146	0.0103
Saturn	-84941-12-27 22:47 J	-29302915.58	-29302915.55	-29302915.49	0.0280	0.0275
Uranus	-84940-04-15 19:40 J	-29302806.79	-29302806.68	-29302806.55	0.0146	0.0126
Saturn	-84939-01-09 05:01 J	-29302538.48	-29302538.29	-29302538.10	0.0278	0.0172
Uranus	-84939-04-21 02:37 J	-29302436.53	-29302436.39	-29302436.25	0.0146	0.0120
Saturn	-84938-01-21 08:37 J	-29302161.36	-29302161.14	-29302160.91	0.0276	0.0076
Jupiter	-84938-03-31 07:54 J	-29302092.38	-29302092.17	-29302091.96	0.0516	0.0245
Uranus	-84938-04-25 20:08 J	-29302066.75	-29302066.66	-29302066.54	0.0147	0.0132
Saturn	-84937-02-02 10:18 J	-29301784.30	-29301784.07	-29301783.83	0.0274	0.0021
Uranus	-84937-04-30 04:32 J	-29301696.36	-29301696.31	-29301696.22	0.0147	0.0140
Saturn	-84936-02-13 02:23 J	-29301407.61	-29301407.40	-29301407.18	0.0272	0.0122
Uranus	-84936-05-05 02:08 J	-29301326.52	-29301326.41	-29301326.31	0.0147	0.0133
Saturn	-84935-02-24 09:49 J	-29301031.21	-29301031.09	-29301030.96	0.0271	0.0232

Uranus	-84934-05-15 11:01 J	-29300586.09	-29300586.04	-29300585.95	0.0147	0.0142
Uranus	-84931-05-30 05:01 J	-29299475.36	-29299475.29	-29299475.20	0.0147	0.0138
Uranus	-84929-06-08 17:16 J	-29298734.85	-29298734.78	-29298734.68	0.0147	0.0137
Uranus	-84928-06-14 06:42 J	-29298364.31	-29298364.22	-29298364.10	0.0147	0.0134
Uranus	-84927-06-19 07:54 J	-29297994.26	-29297994.17	-29297994.08	0.0146	0.0136
Jupiter	-84926-04-04 22:18 J	-29297704.62	-29297704.57	-29297704.51	0.0513	0.0493
Uranus	-84926-06-24 22:32 J	-29297623.70	-29297623.56	-29297623.38	0.0146	0.0115
Uranus	-84925-06-28 23:16 J	-29297253.66	-29297253.53	-29297253.38	0.0145	0.0122
Uranus	-84924-07-04 13:11 J	-29296883.10	-29296882.95	-29296882.76	0.0145	0.0106
Saturn	-84924-07-07 00:13 J	-29296880.67	-29296880.49	-29296880.32	0.0282	0.0196
Uranus	-84923-07-09 14:52 J	-29296513.08	-29296512.88	-29296512.68	0.0145	0.0096
Saturn	-84923-07-21 06:42 J	-29296501.46	-29296501.22	-29296500.97	0.0284	0.0070
Uranus	-84922-07-15 01:40 J	-29296142.60	-29296142.43	-29296142.22	0.0144	0.0097
Saturn	-84922-08-04 17:44 J	-29296122.01	-29296121.76	-29296121.50	0.0286	0.0066
Uranus	-84921-07-19 05:16 J	-29295772.52	-29295772.28	-29295772.05	0.0144	0.0071
Saturn	-84921-08-18 08:37 J	-29295742.31	-29295742.14	-29295741.94	0.0288	0.0204
Uranus	-84920-07-24 11:59 J	-29295402.20	-29295402.00	-29295401.77	0.0143	0.0072
Uranus	-84919-07-29 17:01 J	-29295032.03	-29295031.79	-29295031.53	0.0142	0.0056
Uranus	-84918-08-03 19:25 J	-29294661.92	-29294661.69	-29294661.44	0.0142	0.0042
Uranus	-84917-08-08 02:23 J	-29294291.66	-29294291.40	-29294291.14	0.0141	0.0042
Uranus	-84916-08-12 23:44 J	-29293921.77	-29293921.51	-29293921.26	0.0141	0.0017
Uranus	-84915-08-18 06:28 J	-29293551.49	-29293551.23	-29293550.96	0.0140	0.0016
Uranus	-84914-08-23 00:13 J	-29293181.75	-29293181.49	-29293181.23	0.0139	0.0002
Mars	-84913-06-22 04:04 J	-29292877.48	-29292877.33	-29292877.17	0.1621	0.1091
Uranus	-84913-08-27 05:59 J	-29292811.50	-29292811.25	-29292810.98	0.0139	0.0015
Uranus	-84912-08-31 20:37 J	-29292441.89	-29292441.64	-29292441.37	0.0138	0.0014
Uranus	-84911-09-06 00:42 J	-29292071.71	-29292071.47	-29292071.21	0.0138	0.0038
Saturn	-84910-01-04 13:25 J	-29291951.09	-29291950.94	-29291950.79	0.0279	0.0211
Uranus	-84910-09-10 13:25 J	-29291702.18	-29291701.94	-29291701.67	0.0137	0.0035
Saturn	-84909-01-16 19:40 J	-29291573.90	-29291573.68	-29291573.45	0.0277	0.0110

Uranus	-84909-09-14 15:20 J	-29291332.08	-29291331.86	-29291331.61	0.0137	0.0053
Saturn	-84908-01-27 14:08 J	-29291197.16	-29291196.91	-29291196.67	0.0275	0.0020
Uranus	-84908-09-19 02:52 J	-29290962.62	-29290962.38	-29290962.14	0.0136	0.0061
Saturn	-84907-02-08 07:40 J	-29290820.40	-29290820.18	-29290819.96	0.0273	0.0079
Uranus	-84907-09-24 01:25 J	-29290592.66	-29290592.44	-29290592.21	0.0136	0.0064
Saturn	-84906-02-20 02:23 J	-29290443.56	-29290443.40	-29290443.23	0.0271	0.0184
Uranus	-84906-09-28 11:16 J	-29290223.22	-29290223.03	-29290222.80	0.0135	0.0083
Uranus	-84905-10-02 06:42 J	-29289853.43	-29289853.22	-29289853.01	0.0135	0.0077
Uranus	-84904-10-06 15:20 J	-29289484.04	-29289483.86	-29289483.67	0.0134	0.0095
Uranus	-84903-10-11 06:42 J	-29289114.38	-29289114.22	-29289114.03	0.0134	0.0096
Uranus	-84902-10-15 14:37 J	-29288745.04	-29288744.89	-29288744.70	0.0133	0.0103
Uranus	-84901-10-19 03:35 J	-29288375.46	-29288375.35	-29288375.20	0.0133	0.0113
Uranus	-84900-10-23 10:18 J	-29288006.20	-29288006.07	-29288005.89	0.0133	0.0107
Uranus	-84899-10-27 21:06 J	-29287636.68	-29287636.62	-29287636.51	0.0132	0.0124
Uranus	-84898-11-01 03:35 J	-29287267.46	-29287267.35	-29287267.20	0.0132	0.0114
Uranus	-84897-11-04 12:13 J	-29286898.03	-29286897.99	-29286897.92	0.0132	0.0128
Uranus	-84896-11-08 17:16 J	-29286528.84	-29286528.78	-29286528.67	0.0132	0.0125
Saturn	-84895-06-30 23:59 J	-29286294.62	-29286294.50	-29286294.36	0.0281	0.0240
Uranus	-84895-11-13 00:28 J	-29286159.54	-29286159.48	-29286159.42	0.0132	0.0127
Saturn	-84894-07-14 23:16 J	-29285915.76	-29285915.53	-29285915.30	0.0283	0.0120
Saturn	-84893-07-28 09:35 J	-29285536.34	-29285536.10	-29285535.85	0.0285	0.0012
Uranus	-84893-11-20 09:35 J	-29285421.17	-29285421.10	-29285421.01	0.0131	0.0124
Saturn	-84892-08-12 04:18 J	-29285156.53	-29285156.32	-29285156.11	0.0287	0.0148
Saturn	-84891-08-27 02:52 J	-29284776.43	-29284776.38	-29284776.31	0.0289	0.0280
Uranus	-84891-11-28 16:32 J	-29284682.88	-29284682.81	-29284682.72	0.0131	0.0124
Uranus	-84889-12-05 22:18 J	-29283944.63	-29283944.57	-29283944.47	0.0132	0.0125
Uranus	-84888-12-10 00:28 J	-29283575.55	-29283575.48	-29283575.38	0.0132	0.0124
Uranus	-84887-12-14 03:35 J	-29283206.41	-29283206.35	-29283206.25	0.0132	0.0124
Uranus	-84886-12-18 05:16 J	-29282837.41	-29282837.28	-29282837.15	0.0132	0.0113
Jupiter	-84885-09-25 14:37 J	-29282555.09	-29282554.89	-29282554.69	0.0507	0.0252

Uranus -84885-12-21 07:54 J -29282468.25 -29282468.17 -29282468.06 0.0132 0.0122
 Neptune -84884-09-25 14:37 J -29282189.99 -29282189.89 -29282189.76 0.0088 0.0080
 Uranus -84884-12-25 08:37 J -29282099.27 -29282099.14 -29282098.96 0.0132 0.0105
 Neptune -84883-09-28 10:04 J -29281822.26 -29281822.08 -29281821.88 0.0088 0.0060
 Uranus -84883-12-29 11:59 J -29281730.11 -29281730.00 -29281729.86 0.0133 0.0113
 Neptune -84882-09-30 17:59 J -29281455.00 -29281454.75 -29281454.50 0.0088 0.0031
 Saturn -84882-12-29 21:49 J -29281364.67 -29281364.59 -29281364.49 0.0280 0.0259
 Uranus -84881-01-02 13:25 J -29281361.11 -29281360.94 -29281360.76 0.0133 0.0095
 Neptune -84881-10-02 14:52 J -29281087.14 -29281086.88 -29281086.61 0.0088 0.0010
 Uranus -84880-01-05 16:47 J -29280991.94 -29280991.80 -29280991.62 0.0133 0.0098
 Saturn -84880-01-10 07:40 J -29280987.36 -29280987.18 -29280986.98 0.0277 0.0159
 Neptune -84880-10-04 21:35 J -29280719.86 -29280719.60 -29280719.35 0.0088 0.0019
 Uranus -84879-01-09 18:28 J -29280622.90 -29280622.73 -29280622.52 0.0134 0.0089
 Saturn -84879-01-22 15:06 J -29280610.09 -29280609.87 -29280609.64 0.0275 0.0063
 Jupiter -84879-03-21 15:20 J -29280552.04 -29280551.86 -29280551.68 0.0521 0.0304
 Neptune -84879-10-07 17:16 J -29280352.01 -29280351.78 -29280351.54 0.0088 0.0042
 Uranus -84878-01-13 23:01 J -29280253.71 -29280253.54 -29280253.33 0.0134 0.0080
 Saturn -84878-02-03 12:28 J -29280233.22 -29280232.98 -29280232.74 0.0273 0.0033
 Neptune -84878-10-10 01:54 J -29279984.57 -29279984.42 -29279984.25 0.0088 0.0069
 Uranus -84877-01-18 01:11 J -29279884.65 -29279884.45 -29279884.24 0.0135 0.0080
 Saturn -84877-02-14 23:16 J -29279856.74 -29279856.53 -29279856.32 0.0272 0.0136
 Uranus -84876-01-21 06:13 J -29279515.45 -29279515.24 -29279515.02 0.0135 0.0061
 Saturn -84876-02-25 10:18 J -29279480.15 -29279480.07 -29279479.95 0.0271 0.0244
 Uranus -84875-01-25 08:52 J -29279146.34 -29279146.13 -29279145.89 0.0136 0.0066
 Uranus -84874-01-29 14:52 J -29278777.11 -29278776.88 -29278776.66 0.0136 0.0044
 Uranus -84873-02-02 18:28 J -29278407.96 -29278407.73 -29278407.48 0.0137 0.0046
 Jupiter -84873-09-30 17:16 J -29278167.02 -29278166.78 -29278166.54 0.0510 0.0063
 Uranus -84872-02-06 01:25 J -29278038.67 -29278038.44 -29278038.21 0.0137 0.0032
 Uranus -84871-02-10 06:56 J -29277669.45 -29277669.21 -29277668.95 0.0138 0.0023
 Uranus -84870-02-14 15:20 J -29277300.09 -29277299.86 -29277299.62 0.0138 0.0019

Uranus	-84869-02-18 23:30 J	-29276930.78	-29276930.52	-29276930.27	0.0139	0.0003
Uranus	-84868-02-22 09:06 J	-29276561.35	-29276561.12	-29276560.88	0.0139	0.0002
Uranus	-84867-02-26 19:40 J	-29276191.92	-29276191.68	-29276191.42	0.0140	0.0024
Jupiter	-84867-03-26 01:54 J	-29276164.65	-29276164.42	-29276164.18	0.0519	0.0022
Uranus	-84866-03-03 06:28 J	-29275822.47	-29275822.23	-29275822.00	0.0141	0.0024
Mars	-84866-06-16 22:47 J	-29275716.75	-29275716.55	-29275716.34	0.1609	0.0067
Uranus	-84865-03-06 19:40 J	-29275452.92	-29275452.68	-29275452.43	0.0141	0.0038
Saturn	-84865-07-08 01:40 J	-29275329.62	-29275329.43	-29275329.23	0.0282	0.0176
Uranus	-84864-03-11 06:56 J	-29275083.43	-29275083.21	-29275082.98	0.0142	0.0052
Saturn	-84864-07-22 04:47 J	-29274950.56	-29274950.30	-29274950.05	0.0284	0.0049
Uranus	-84863-03-15 23:01 J	-29274713.76	-29274713.54	-29274713.29	0.0143	0.0054
Saturn	-84863-08-05 13:54 J	-29274571.16	-29274570.92	-29274570.66	0.0286	0.0086
Uranus	-84862-03-20 11:30 J	-29274344.22	-29274344.02	-29274343.81	0.0143	0.0077
Saturn	-84862-08-20 07:11 J	-29274191.35	-29274191.20	-29274191.03	0.0288	0.0220
Uranus	-84861-03-24 07:11 J	-29273974.41	-29273974.20	-29273973.97	0.0144	0.0073
Jupiter	-84861-10-05 10:04 J	-29273779.27	-29273779.08	-29273778.90	0.0512	0.0318
Uranus	-84860-03-28 20:23 J	-29273604.81	-29273604.65	-29273604.44	0.0144	0.0093
Mars	-84860-12-22 02:23 J	-29273336.59	-29273336.40	-29273336.20	0.1930	0.0181
Uranus	-84859-04-02 20:37 J	-29273234.82	-29273234.64	-29273234.45	0.0145	0.0097
Uranus	-84858-04-07 10:47 J	-29272865.21	-29272865.05	-29272864.86	0.0145	0.0102
Uranus	-84857-04-11 14:23 J	-29272495.03	-29272494.90	-29272494.75	0.0146	0.0122
Uranus	-84856-04-16 06:28 J	-29272125.38	-29272125.23	-29272125.08	0.0146	0.0114
Jupiter	-84855-03-30 13:25 J	-29271777.13	-29271776.94	-29271776.73	0.0517	0.0211
Uranus	-84855-04-21 12:42 J	-29271755.06	-29271754.97	-29271754.86	0.0146	0.0134
Uranus	-84854-04-26 06:13 J	-29271385.34	-29271385.24	-29271385.12	0.0147	0.0132
Uranus	-84853-04-30 14:52 J	-29271014.97	-29271014.88	-29271014.78	0.0147	0.0135
Saturn	-84851-01-05 15:20 J	-29270400.02	-29270399.86	-29270399.68	0.0279	0.0196
Uranus	-84851-05-10 19:54 J	-29270274.72	-29270274.67	-29270274.56	0.0147	0.0140
Saturn	-84850-01-17 17:01 J	-29270023.02	-29270022.79	-29270022.56	0.0277	0.0099
Saturn	-84849-01-29 14:52 J	-29269646.12	-29269645.88	-29269645.65	0.0275	0.0006

Uranus	-84849-05-20 04:32 J	-29269534.31	-29269534.31	-29269534.28	0.0147	0.0147
Saturn	-84848-02-09 12:56 J	-29269269.17	-29269268.96	-29269268.74	0.0273	0.0094
Uranus	-84848-05-25 08:37 J	-29269164.19	-29269164.14	-29269164.06	0.0147	0.0142
Saturn	-84847-02-21 04:32 J	-29268892.47	-29268892.31	-29268892.14	0.0271	0.0196
Uranus	-84846-06-04 23:30 J	-29268423.61	-29268423.52	-29268423.40	0.0147	0.0135
Uranus	-84845-06-09 03:35 J	-29268053.39	-29268053.35	-29268053.29	0.0147	0.0143
Uranus	-84844-06-14 15:49 J	-29267682.94	-29267682.84	-29267682.74	0.0147	0.0135
Jupiter	-84843-04-04 05:01 J	-29267389.38	-29267389.29	-29267389.18	0.0515	0.0464
Uranus	-84843-06-19 16:47 J	-29267312.92	-29267312.80	-29267312.64	0.0146	0.0123
Uranus	-84842-06-25 07:11 J	-29266942.30	-29266942.20	-29266942.05	0.0146	0.0128
Uranus	-84841-06-29 07:54 J	-29266572.34	-29266572.17	-29266571.98	0.0145	0.0106
Uranus	-84840-07-04 22:47 J	-29266201.71	-29266201.55	-29266201.37	0.0145	0.0106
Uranus	-84839-07-09 23:01 J	-29265831.72	-29265831.54	-29265831.33	0.0145	0.0098
Uranus	-84838-07-15 11:59 J	-29265461.21	-29265461.00	-29265460.78	0.0144	0.0078
Uranus	-84837-07-19 13:40 J	-29265091.14	-29265090.93	-29265090.69	0.0144	0.0081
Saturn	-84836-07-01 23:44 J	-29264743.65	-29264743.51	-29264743.35	0.0281	0.0223
Uranus	-84836-07-24 22:04 J	-29264720.81	-29264720.58	-29264720.34	0.0143	0.0057
Saturn	-84835-07-16 03:35 J	-29264364.57	-29264364.35	-29264364.12	0.0283	0.0101
Uranus	-84835-07-30 01:25 J	-29264350.69	-29264350.44	-29264350.18	0.0142	0.0052
Saturn	-84834-07-30 15:35 J	-29263985.09	-29263984.85	-29263984.60	0.0285	0.0031
Uranus	-84834-08-04 04:47 J	-29263980.54	-29263980.30	-29263980.05	0.0142	0.0044
Uranus	-84833-08-08 09:35 J	-29263610.36	-29263610.10	-29263609.83	0.0141	0.0023
Saturn	-84833-08-13 08:23 J	-29263605.35	-29263605.15	-29263604.93	0.0287	0.0165
Uranus	-84832-08-13 08:08 J	-29263240.41	-29263240.16	-29263239.91	0.0141	0.0025
Uranus	-84831-08-18 13:54 J	-29262870.19	-29262869.92	-29262869.65	0.0140	0.0002
Uranus	-84830-08-23 08:23 J	-29262500.41	-29262500.15	-29262499.89	0.0139	0.0005
Uranus	-84829-08-27 14:08 J	-29262130.17	-29262129.91	-29262129.64	0.0139	0.0012
Uranus	-84828-09-01 05:16 J	-29261760.53	-29261760.28	-29261760.03	0.0138	0.0033
Uranus	-84827-09-06 09:35 J	-29261390.35	-29261390.10	-29261389.83	0.0138	0.0029
Uranus	-84826-09-10 22:18 J	-29261020.81	-29261020.57	-29261020.32	0.0137	0.0052

Uranus	-84825-09-14 23:59 J	-29260650.72	-29260650.50	-29260650.24	0.0137	0.0055
Uranus	-84824-09-19 10:32 J	-29260281.27	-29260281.06	-29260280.81	0.0136	0.0065
Uranus	-84823-09-24 10:04 J	-29259911.29	-29259911.08	-29259910.87	0.0136	0.0079
Saturn	-84823-12-31 00:28 J	-29259813.58	-29259813.48	-29259813.36	0.0280	0.0246
Uranus	-84822-09-28 19:11 J	-29259541.92	-29259541.70	-29259541.48	0.0135	0.0075
Saturn	-84821-01-12 13:54 J	-29259436.11	-29259435.92	-29259435.72	0.0277	0.0146
Uranus	-84821-10-02 14:52 J	-29259172.03	-29259171.88	-29259171.68	0.0135	0.0096
Saturn	-84820-01-23 17:44 J	-29259059.00	-29259058.76	-29259058.52	0.0275	0.0048
Uranus	-84820-10-06 23:01 J	-29258802.73	-29258802.54	-29258802.33	0.0134	0.0090
Saturn	-84819-02-04 08:52 J	-29258682.37	-29258682.13	-29258681.89	0.0273	0.0047
Uranus	-84819-10-11 16:04 J	-29258432.97	-29258432.83	-29258432.65	0.0134	0.0105
Saturn	-84818-02-15 22:04 J	-29258305.77	-29258305.58	-29258305.38	0.0272	0.0151
Uranus	-84818-10-15 23:16 J	-29258063.68	-29258063.53	-29258063.37	0.0133	0.0108
Saturn	-84817-02-27 14:23 J	-29257928.96	-29257928.90	-29257928.82	0.0270	0.0257
Uranus	-84817-10-19 13:11 J	-29257694.07	-29257693.95	-29257693.79	0.0133	0.0109
Uranus	-84816-10-23 18:42 J	-29257324.80	-29257324.72	-29257324.59	0.0133	0.0122
Uranus	-84815-10-28 06:42 J	-29256955.33	-29256955.22	-29256955.08	0.0132	0.0114
Uranus	-84814-11-01 11:30 J	-29256586.06	-29256586.02	-29256585.96	0.0132	0.0129
Uranus	-84813-11-04 20:52 J	-29256216.69	-29256216.63	-29256216.51	0.0132	0.0123
Uranus	-84812-11-09 00:56 J	-29255847.47	-29255847.46	-29255847.41	0.0132	0.0131
Uranus	-84811-11-13 09:20 J	-29255478.11	-29255478.11	-29255478.08	0.0132	0.0131
Uranus	-84810-11-17 12:28 J	-29255109.03	-29255108.98	-29255108.89	0.0132	0.0127
Uranus	-84808-11-24 21:06 J	-29254370.69	-29254370.62	-29254370.52	0.0131	0.0124
Saturn	-84807-06-26 02:52 J	-29254157.41	-29254157.38	-29254157.32	0.0279	0.0275
Saturn	-84806-07-09 20:08 J	-29253778.87	-29253778.66	-29253778.44	0.0282	0.0156
Uranus	-84806-12-03 03:49 J	-29253632.43	-29253632.34	-29253632.25	0.0132	0.0123
Saturn	-84805-07-22 23:16 J	-29253399.79	-29253399.53	-29253399.28	0.0284	0.0029
Uranus	-84805-12-06 08:08 J	-29253263.19	-29253263.16	-29253263.12	0.0132	0.0130
Saturn	-84804-08-06 12:13 J	-29253020.22	-29253019.99	-29253019.76	0.0286	0.0103
Uranus	-84804-12-10 08:23 J	-29252894.24	-29252894.15	-29252894.05	0.0132	0.0122

Saturn -84803-08-21 09:49 J -29252640.23 -29252640.09 -29252639.95 0.0288 0.0233
 Uranus -84803-12-14 12:28 J -29252525.06 -29252524.98 -29252524.85 0.0132 0.0119
 Jupiter -84802-09-26 03:35 J -29252239.56 -29252239.35 -29252239.14 0.0507 0.0255
 Uranus -84802-12-18 12:42 J -29252156.05 -29252155.97 -29252155.85 0.0132 0.0121
 Neptune -84801-03-22 12:56 J -29252061.06 -29252060.96 -29252060.80 0.0089 0.0076
 Uranus -84801-12-21 17:16 J -29251786.90 -29251786.78 -29251786.63 0.0132 0.0108
 Neptune -84800-03-24 17:44 J -29251693.93 -29251693.76 -29251693.56 0.0089 0.0058
 Uranus -84800-12-25 17:30 J -29251417.88 -29251417.77 -29251417.63 0.0132 0.0116
 Neptune -84799-03-27 05:30 J -29251326.51 -29251326.27 -29251326.01 0.0089 0.0028
 Uranus -84799-12-29 22:18 J -29251048.71 -29251048.57 -29251048.39 0.0133 0.0098
 Neptune -84798-03-29 15:20 J -29250959.10 -29250958.86 -29250958.61 0.0089 0.0009
 Uranus -84797-01-02 22:47 J -29250679.71 -29250679.55 -29250679.39 0.0133 0.0102
 Neptune -84797-03-30 22:32 J -29250591.81 -29250591.56 -29250591.30 0.0089 0.0021
 Uranus -84796-01-06 03:06 J -29250310.53 -29250310.37 -29250310.17 0.0133 0.0090
 Jupiter -84796-03-20 14:37 J -29250237.07 -29250236.89 -29250236.71 0.0522 0.0334
 Neptune -84796-04-02 13:11 J -29250224.16 -29250223.95 -29250223.72 0.0089 0.0041
 Pluto -84796-07-05 07:54 J -29250130.42 -29250130.17 -29250129.91 0.0067 0.0004
 Uranus -84795-01-10 03:20 J -29249941.54 -29249941.36 -29249941.15 0.0134 0.0086
 Neptune -84795-04-04 16:32 J -29249856.94 -29249856.81 -29249856.63 0.0089 0.0070
 Uranus -84794-01-14 08:52 J -29249572.32 -29249572.13 -29249571.93 0.0134 0.0081
 Neptune -84794-04-07 09:20 J -29249489.12 -29249489.11 -29249489.05 0.0089 0.0088
 Uranus -84793-01-18 09:06 J -29249203.33 -29249203.12 -29249202.88 0.0135 0.0067
 Saturn -84792-01-06 10:47 J -29248849.23 -29248849.05 -29248848.86 0.0279 0.0184
 Uranus -84792-01-21 15:35 J -29248834.05 -29248833.85 -29248833.64 0.0135 0.0069
 Saturn -84791-01-18 15:06 J -29248472.09 -29248471.87 -29248471.64 0.0277 0.0086
 Uranus -84791-01-25 17:01 J -29248465.02 -29248464.79 -29248464.54 0.0136 0.0048
 Uranus -84790-01-30 00:28 J -29248095.69 -29248095.48 -29248095.25 0.0136 0.0052
 Saturn -84790-01-30 18:28 J -29248094.96 -29248094.73 -29248094.50 0.0275 0.0010
 Jupiter -84790-09-30 19:11 J -29247851.93 -29247851.70 -29247851.46 0.0509 0.0044
 Uranus -84789-02-03 03:20 J -29247726.60 -29247726.36 -29247726.11 0.0137 0.0033

Saturn -84789-02-11 14:37 J -29247718.11 -29247717.89 -29247717.67 0.0273 0.0108
 Uranus -84788-02-06 11:59 J -29247357.23 -29247357.00 -29247356.77 0.0137 0.0030
 Saturn -84788-02-22 00:13 J -29247341.64 -29247341.49 -29247341.33 0.0271 0.0212
 Uranus -84787-02-10 16:32 J -29246988.06 -29246987.81 -29246987.56 0.0138 0.0020
 Mars -84787-06-19 06:42 J -29246859.41 -29246859.22 -29246859.03 0.1612 0.0197
 Uranus -84786-02-15 02:08 J -29246618.65 -29246618.41 -29246618.17 0.0138 0.0004
 Uranus -84785-02-19 08:37 J -29246249.39 -29246249.14 -29246248.88 0.0139 0.0004
 Uranus -84784-02-22 19:25 J -29245879.93 -29245879.69 -29245879.45 0.0139 0.0020
 Jupiter -84784-03-25 07:25 J -29245849.41 -29245849.19 -29245848.97 0.0520 0.0057
 Uranus -84783-02-27 04:18 J -29245510.57 -29245510.32 -29245510.06 0.0140 0.0017
 Uranus -84782-03-03 16:18 J -29245141.05 -29245140.82 -29245140.59 0.0141 0.0037
 Uranus -84781-03-07 04:04 J -29244771.57 -29244771.33 -29244771.08 0.0141 0.0043
 Mars -84781-12-25 19:25 J -29244477.88 -29244477.69 -29244477.49 0.1925 0.0826
 Uranus -84780-03-11 17:01 J -29244402.00 -29244401.79 -29244401.56 0.0142 0.0052
 Uranus -84779-03-16 08:23 J -29244032.36 -29244032.15 -29244031.92 0.0143 0.0071
 Uranus -84778-03-20 22:04 J -29243662.78 -29243662.58 -29243662.36 0.0143 0.0068
 Jupiter -84778-10-05 22:04 J -29243463.77 -29243463.58 -29243463.38 0.0511 0.0279
 Uranus -84777-03-24 16:47 J -29243292.98 -29243292.80 -29243292.58 0.0144 0.0091
 Saturn -84777-07-03 03:06 J -29243192.52 -29243192.37 -29243192.19 0.0281 0.0206
 Uranus -84776-03-29 07:25 J -29242923.36 -29242923.19 -29242922.99 0.0144 0.0089
 Saturn -84776-07-17 07:11 J -29242813.44 -29242813.20 -29242812.96 0.0283 0.0080
 Uranus -84775-04-03 05:59 J -29242553.41 -29242553.25 -29242553.05 0.0145 0.0102
 Saturn -84775-07-31 16:04 J -29242434.08 -29242433.83 -29242433.57 0.0285 0.0050
 Uranus -84774-04-07 21:06 J -29242183.75 -29242183.62 -29242183.45 0.0145 0.0115
 Saturn -84774-08-15 05:30 J -29242054.46 -29242054.27 -29242054.06 0.0287 0.0181
 Uranus -84773-04-11 23:59 J -29241813.65 -29241813.50 -29241813.33 0.0146 0.0112
 Jupiter -84772-03-30 01:25 J -29241461.66 -29241461.44 -29241461.21 0.0518 0.0183
 Uranus -84772-04-16 16:04 J -29241443.90 -29241443.83 -29241443.71 0.0146 0.0134
 Uranus -84771-04-21 22:18 J -29241073.67 -29241073.57 -29241073.42 0.0146 0.0127
 Uranus -84770-04-26 16:18 J -29240703.88 -29240703.82 -29240703.72 0.0147 0.0139

Uranus	-84769-05-01 01:40 J	-29240333.47	-29240333.43	-29240333.39	0.0147	0.0144
Uranus	-84768-05-05 21:20 J	-29239963.69	-29239963.61	-29239963.52	0.0147	0.0138
Uranus	-84766-05-16 05:30 J	-29239223.32	-29239223.27	-29239223.19	0.0147	0.0142
Saturn	-84763-01-01 05:59 J	-29238262.37	-29238262.25	-29238262.12	0.0280	0.0233
Uranus	-84763-05-31 00:56 J	-29238112.52	-29238112.46	-29238112.36	0.0147	0.0139
Saturn	-84762-01-13 16:47 J	-29237885.00	-29237884.80	-29237884.57	0.0277	0.0134
Saturn	-84761-01-25 14:52 J	-29237508.12	-29237507.88	-29237507.63	0.0275	0.0037
Uranus	-84761-06-09 13:11 J	-29237372.03	-29237371.95	-29237371.83	0.0147	0.0134
Saturn	-84760-02-05 07:25 J	-29237131.42	-29237131.19	-29237130.96	0.0273	0.0061
Jupiter	-84760-04-03 12:28 J	-29237074.07	-29237073.98	-29237073.87	0.0515	0.0454
Uranus	-84760-06-15 00:42 J	-29237001.58	-29237001.47	-29237001.34	0.0147	0.0131
Saturn	-84759-02-17 02:23 J	-29236754.58	-29236754.40	-29236754.22	0.0271	0.0168
Uranus	-84759-06-20 03:06 J	-29236631.46	-29236631.37	-29236631.24	0.0146	0.0131
Saturn	-84758-02-28 17:01 J	-29236377.80	-29236377.79	-29236377.76	0.0270	0.0269
Uranus	-84758-06-25 17:30 J	-29236260.93	-29236260.77	-29236260.59	0.0146	0.0109
Uranus	-84757-06-29 18:13 J	-29235890.88	-29235890.74	-29235890.58	0.0145	0.0116
Uranus	-84756-07-05 08:37 J	-29235520.32	-29235520.14	-29235519.94	0.0145	0.0098
Uranus	-84755-07-10 08:37 J	-29235150.34	-29235150.14	-29235149.93	0.0145	0.0089
Uranus	-84754-07-15 21:20 J	-29234779.80	-29234779.61	-29234779.39	0.0144	0.0087
Uranus	-84753-07-19 21:49 J	-29234409.82	-29234409.59	-29234409.33	0.0144	0.0061
Uranus	-84752-07-25 07:25 J	-29234039.41	-29234039.19	-29234038.95	0.0143	0.0063
Uranus	-84751-07-30 09:35 J	-29233669.35	-29233669.10	-29233668.84	0.0142	0.0045
Uranus	-84750-08-04 14:37 J	-29233299.13	-29233298.89	-29233298.64	0.0142	0.0032
Uranus	-84749-08-08 18:13 J	-29232929.00	-29232928.74	-29232928.47	0.0141	0.0031
Saturn	-84748-06-26 20:52 J	-29232606.72	-29232606.63	-29232606.52	0.0279	0.0255
Uranus	-84748-08-13 18:13 J	-29232558.99	-29232558.74	-29232558.48	0.0141	0.0006
Saturn	-84747-07-10 15:49 J	-29232228.06	-29232227.84	-29232227.62	0.0282	0.0137
Uranus	-84747-08-18 23:01 J	-29232188.81	-29232188.54	-29232188.27	0.0140	0.0005
Saturn	-84746-07-24 23:16 J	-29231848.78	-29231848.53	-29231848.29	0.0284	0.0011
Uranus	-84746-08-23 18:28 J	-29231818.98	-29231818.73	-29231818.47	0.0139	0.0012

Saturn -84745-08-07 15:20 J -29231469.07 -29231468.86 -29231468.63 0.0286 0.0121
 Uranus -84745-08-27 23:01 J -29231448.80 -29231448.54 -29231448.27 0.0139 0.0025
 Saturn -84744-08-22 13:11 J -29231089.06 -29231088.95 -29231088.82 0.0288 0.0249
 Uranus -84744-09-01 14:37 J -29231079.14 -29231078.89 -29231078.64 0.0138 0.0026
 Uranus -84743-09-06 18:28 J -29230708.97 -29230708.73 -29230708.48 0.0138 0.0049
 Uranus -84742-09-11 06:56 J -29230339.44 -29230339.21 -29230338.95 0.0137 0.0046
 Uranus -84741-09-15 09:20 J -29229969.33 -29229969.11 -29229968.87 0.0136 0.0065
 Mars -84740-06-12 22:04 J -29229698.72 -29229698.58 -29229698.43 0.1602 0.0933
 Uranus -84740-09-19 19:25 J -29229599.90 -29229599.69 -29229599.45 0.0136 0.0072
 Uranus -84739-09-24 19:11 J -29229229.90 -29229229.70 -29229229.47 0.0135 0.0075
 Uranus -84738-09-29 03:49 J -29228860.53 -29228860.34 -29228860.14 0.0135 0.0092
 Uranus -84737-10-03 00:28 J -29228490.68 -29228490.48 -29228490.28 0.0135 0.0086
 Uranus -84736-10-07 06:56 J -29228121.36 -29228121.21 -29228121.04 0.0134 0.0106
 Uranus -84735-10-12 00:28 J -29227751.61 -29227751.48 -29227751.29 0.0134 0.0104
 Saturn -84735-12-26 21:35 J -29227675.67 -29227675.60 -29227675.53 0.0282 0.0270
 Uranus -84734-10-16 06:13 J -29227382.36 -29227382.24 -29227382.08 0.0133 0.0112
 Saturn -84733-01-08 09:20 J -29227298.30 -29227298.11 -29227297.93 0.0279 0.0173
 Uranus -84733-10-19 22:04 J -29227012.68 -29227012.58 -29227012.46 0.0133 0.0119
 Saturn -84732-01-19 18:28 J -29226920.95 -29226920.73 -29226920.50 0.0277 0.0075
 Uranus -84732-10-24 02:23 J -29226643.51 -29226643.40 -29226643.24 0.0133 0.0114
 Saturn -84731-01-31 20:52 J -29226543.87 -29226543.63 -29226543.40 0.0275 0.0022
 Uranus -84731-10-28 16:18 J -29226273.86 -29226273.82 -29226273.77 0.0132 0.0130
 Saturn -84730-02-12 10:18 J -29226167.28 -29226167.07 -29226166.84 0.0273 0.0125
 Uranus -84730-11-01 19:54 J -29225904.77 -29225904.67 -29225904.55 0.0132 0.0120
 Saturn -84729-02-23 20:23 J -29225790.77 -29225790.65 -29225790.52 0.0271 0.0229
 Uranus -84728-11-09 09:35 J -29225166.15 -29225166.10 -29225166.03 0.0132 0.0128
 Uranus -84727-11-13 18:56 J -29224796.71 -29224796.71 -29224796.68 0.0132 0.0131
 Uranus -84725-11-21 03:35 J -29224058.40 -29224058.35 -29224058.27 0.0131 0.0127
 Uranus -84723-11-29 10:47 J -29223320.11 -29223320.05 -29223319.95 0.0131 0.0124
 Uranus -84721-12-06 16:47 J -29222581.86 -29222581.80 -29222581.69 0.0132 0.0123

Uranus -84720-12-10 16:18 J -29222212.89 -29222212.82 -29222212.72 0.0132 0.0124
 Jupiter -84719-09-25 02:52 J -29221924.57 -29221924.38 -29221924.18 0.0506 0.0279
 Neptune -84719-09-27 12:13 J -29221922.15 -29221921.99 -29221921.79 0.0088 0.0064
 Uranus -84719-12-14 22:04 J -29221843.66 -29221843.58 -29221843.47 0.0132 0.0121
 Saturn -84718-07-05 05:59 J -29221641.43 -29221641.25 -29221641.06 0.0281 0.0188
 Neptune -84718-09-30 09:20 J -29221554.31 -29221554.11 -29221553.86 0.0088 0.0048
 Uranus -84718-12-18 20:37 J -29221474.76 -29221474.64 -29221474.49 0.0132 0.0112
 Saturn -84717-07-18 05:30 J -29221262.52 -29221262.27 -29221262.01 0.0283 0.0063
 Neptune -84717-10-01 17:01 J -29221187.04 -29221186.79 -29221186.53 0.0088 0.0014
 Uranus -84717-12-22 02:08 J -29221105.49 -29221105.41 -29221105.28 0.0132 0.0119
 Saturn -84716-08-01 11:30 J -29220883.27 -29220883.02 -29220882.76 0.0285 0.0069
 Neptune -84716-10-04 12:13 J -29220819.26 -29220818.99 -29220818.72 0.0088 0.0003
 Uranus -84716-12-26 00:56 J -29220736.61 -29220736.46 -29220736.28 0.0132 0.0101
 Saturn -84715-08-16 01:54 J -29220503.59 -29220503.42 -29220503.22 0.0288 0.0199
 Neptune -84715-10-06 21:49 J -29220451.81 -29220451.59 -29220451.34 0.0088 0.0037
 Uranus -84715-12-30 06:56 J -29220367.34 -29220367.21 -29220367.06 0.0133 0.0108
 Neptune -84714-10-09 12:56 J -29220084.16 -29220083.96 -29220083.72 0.0088 0.0052
 Uranus -84713-01-03 05:30 J -29219998.45 -29219998.27 -29219998.07 0.0133 0.0089
 Jupiter -84713-03-20 01:54 J -29219921.58 -29219921.42 -29219921.26 0.0523 0.0354
 Neptune -84713-10-11 03:06 J -29219716.41 -29219716.37 -29219716.28 0.0088 0.0086
 Uranus -84712-01-06 11:44 J -29219629.17 -29219629.01 -29219628.82 0.0133 0.0093
 Uranus -84711-01-10 10:47 J -29219260.24 -29219260.05 -29219259.84 0.0134 0.0081
 Uranus -84710-01-14 17:30 J -29218890.95 -29218890.77 -29218890.55 0.0134 0.0075
 Pluto -84709-01-10 08:37 J -29218530.28 -29218530.14 -29218529.95 0.0078 0.0058
 Uranus -84709-01-18 17:01 J -29218521.99 -29218521.79 -29218521.56 0.0135 0.0072
 Uranus -84708-01-22 00:42 J -29218152.68 -29218152.47 -29218152.24 0.0135 0.0053
 Mars -84708-06-21 04:47 J -29218002.42 -29218002.30 -29218002.19 0.1614 0.1223
 Uranus -84707-01-26 00:42 J -29217783.69 -29217783.47 -29217783.22 0.0136 0.0058
 Jupiter -84707-09-30 07:40 J -29217536.42 -29217536.18 -29217535.94 0.0508 0.0013
 Uranus -84706-01-30 09:20 J -29217414.34 -29217414.11 -29217413.88 0.0136 0.0035

Uranus -84705-02-03 10:32 J -29217045.29 -29217045.06 -29217044.80 0.0137 0.0039
 Saturn -84704-01-02 08:37 J -29216711.29 -29216711.14 -29216710.99 0.0280 0.0217
 Uranus -84704-02-06 20:23 J -29216675.88 -29216675.65 -29216675.41 0.0137 0.0022
 Saturn -84703-01-14 13:54 J -29216334.14 -29216333.92 -29216333.70 0.0277 0.0122
 Uranus -84703-02-10 23:44 J -29216306.76 -29216306.51 -29216306.25 0.0138 0.0014
 Saturn -84702-01-26 12:13 J -29215957.23 -29215956.99 -29215956.75 0.0275 0.0026
 Uranus -84702-02-15 11:01 J -29215937.27 -29215937.04 -29215936.80 0.0138 0.0007
 Saturn -84701-02-07 10:47 J -29215580.26 -29215580.05 -29215579.82 0.0273 0.0077
 Uranus -84701-02-19 16:32 J -29215568.06 -29215567.81 -29215567.55 0.0139 0.0013
 Jupiter -84701-03-24 20:52 J -29215533.86 -29215533.63 -29215533.39 0.0520 0.0076
 Saturn -84700-02-18 05:44 J -29215203.43 -29215203.26 -29215203.08 0.0271 0.0183
 Uranus -84700-02-23 04:47 J -29215198.53 -29215198.30 -29215198.05 0.0139 0.0012
 Uranus -84699-02-27 12:42 J -29214829.21 -29214828.97 -29214828.72 0.0140 0.0034
 Uranus -84698-03-04 01:54 J -29214459.65 -29214459.42 -29214459.19 0.0141 0.0034
 Uranus -84697-03-07 12:13 J -29214090.22 -29214089.99 -29214089.74 0.0141 0.0050
 Uranus -84696-03-12 02:23 J -29213720.61 -29213720.40 -29213720.18 0.0142 0.0062
 Uranus -84695-03-16 16:04 J -29213351.06 -29213350.83 -29213350.60 0.0143 0.0065
 Jupiter -84695-10-04 23:59 J -29213148.71 -29213148.50 -29213148.28 0.0511 0.0251
 Uranus -84694-03-21 06:56 J -29212981.39 -29212981.21 -29212981.01 0.0143 0.0087
 Uranus -84693-03-25 00:28 J -29212611.68 -29212611.48 -29212611.26 0.0144 0.0082
 Uranus -84692-03-29 16:32 J -29212241.97 -29212241.81 -29212241.64 0.0144 0.0102
 Uranus -84691-04-03 14:08 J -29211872.07 -29211871.91 -29211871.72 0.0145 0.0106
 Uranus -84690-04-08 06:56 J -29211502.35 -29211502.21 -29211502.04 0.0145 0.0113
 Jupiter -84689-03-29 07:40 J -29211146.39 -29211146.18 -29211145.96 0.0518 0.0158
 Uranus -84689-04-12 09:06 J -29211132.22 -29211132.12 -29211131.99 0.0146 0.0130
 Saturn -84689-06-27 18:13 J -29211055.86 -29211055.74 -29211055.60 0.0279 0.0239
 Uranus -84688-04-17 02:37 J -29210762.51 -29210762.39 -29210762.25 0.0146 0.0122
 Saturn -84688-07-11 17:59 J -29210676.96 -29210676.75 -29210676.53 0.0282 0.0121
 Uranus -84687-04-22 08:23 J -29210392.21 -29210392.15 -29210392.08 0.0146 0.0141
 Saturn -84687-07-26 03:35 J -29210297.60 -29210297.35 -29210297.10 0.0284 0.0008

Uranus	-84686-04-27 01:54 J	-29210022.48	-29210022.42	-29210022.31	0.0147	0.0138
Saturn	-84686-08-09 18:42 J	-29209917.94	-29209917.72	-29209917.50	0.0286	0.0138
Uranus	-84685-05-01 10:47 J	-29209652.10	-29209652.05	-29209651.97	0.0147	0.0141
Saturn	-84685-08-23 13:11 J	-29209538.05	-29209537.95	-29209537.84	0.0288	0.0262
Uranus	-84683-05-11 16:47 J	-29208911.86	-29208911.80	-29208911.73	0.0147	0.0142
Uranus	-84681-05-21 01:25 J	-29208171.45	-29208171.44	-29208171.40	0.0147	0.0147
Uranus	-84680-05-26 02:52 J	-29207801.42	-29207801.38	-29207801.30	0.0147	0.0144
Uranus	-84678-06-05 17:44 J	-29207060.85	-29207060.76	-29207060.63	0.0147	0.0133
Jupiter	-84677-04-02 23:16 J	-29206758.65	-29206758.53	-29206758.40	0.0516	0.0427
Uranus	-84677-06-10 00:28 J	-29206690.53	-29206690.48	-29206690.40	0.0147	0.0141
Uranus	-84676-06-15 10:18 J	-29206320.18	-29206320.07	-29206319.94	0.0147	0.0130
Saturn	-84676-12-27 19:11 J	-29206124.79	-29206124.70	-29206124.59	0.0282	0.0256
Uranus	-84675-06-20 13:54 J	-29205950.06	-29205949.92	-29205949.77	0.0146	0.0118
Saturn	-84674-01-09 12:56 J	-29205747.15	-29205746.96	-29205746.77	0.0279	0.0161
Uranus	-84674-06-26 02:37 J	-29205579.51	-29205579.39	-29205579.22	0.0146	0.0122
Saturn	-84673-01-21 22:04 J	-29205369.80	-29205369.58	-29205369.34	0.0277	0.0064
Uranus	-84673-06-30 04:04 J	-29205209.51	-29205209.33	-29205209.14	0.0146	0.0099
Saturn	-84672-02-01 18:28 J	-29204992.97	-29204992.73	-29204992.48	0.0275	0.0037
Uranus	-84672-07-05 18:13 J	-29204838.91	-29204838.74	-29204838.53	0.0145	0.0101
Saturn	-84671-02-13 07:25 J	-29204616.39	-29204616.19	-29204615.98	0.0273	0.0141
Uranus	-84671-07-10 17:59 J	-29204468.94	-29204468.75	-29204468.52	0.0145	0.0089
Saturn	-84670-02-24 23:30 J	-29204239.60	-29204239.52	-29204239.42	0.0271	0.0246
Uranus	-84670-07-16 08:08 J	-29204098.38	-29204098.16	-29204097.93	0.0144	0.0069
Uranus	-84669-07-20 07:25 J	-29203728.41	-29203728.19	-29203727.94	0.0144	0.0072
Uranus	-84668-07-25 17:44 J	-29203357.99	-29203357.76	-29203357.50	0.0143	0.0047
Uranus	-84667-07-30 18:13 J	-29202987.98	-29202987.74	-29202987.47	0.0142	0.0044
Uranus	-84666-08-05 00:42 J	-29202617.72	-29202617.47	-29202617.22	0.0142	0.0033
Uranus	-84665-08-09 02:23 J	-29202247.67	-29202247.40	-29202247.12	0.0141	0.0013
Uranus	-84664-08-14 03:49 J	-29201877.59	-29201877.34	-29201877.08	0.0141	0.0014
Uranus	-84663-08-19 07:11 J	-29201507.47	-29201507.20	-29201506.93	0.0140	0.0011

Uranus	-84662-08-24 04:04 J	-29201137.58	-29201137.33	-29201137.08	0.0139	0.0015
Mars	-84661-06-14 18:28 J	-29200841.89	-29200841.73	-29200841.56	0.1603	0.0664
Uranus	-84661-08-28 07:54 J	-29200767.43	-29200767.17	-29200766.90	0.0139	0.0025
Uranus	-84660-09-02 00:42 J	-29200397.72	-29200397.47	-29200397.23	0.0138	0.0044
Saturn	-84659-07-06 04:32 J	-29200090.51	-29200090.31	-29200090.10	0.0281	0.0170
Uranus	-84659-09-07 03:49 J	-29200027.58	-29200027.34	-29200027.07	0.0138	0.0041
Saturn	-84658-07-20 02:08 J	-29199711.66	-29199711.41	-29199711.15	0.0283	0.0044
Uranus	-84658-09-11 17:01 J	-29199658.01	-29199657.79	-29199657.56	0.0137	0.0064
Saturn	-84657-08-02 11:01 J	-29199332.28	-29199332.04	-29199331.80	0.0286	0.0086
Uranus	-84657-09-15 18:28 J	-29199287.95	-29199287.73	-29199287.49	0.0136	0.0065
Saturn	-84656-08-17 05:16 J	-29198952.43	-29198952.28	-29198952.11	0.0288	0.0214
Uranus	-84656-09-20 04:32 J	-29198918.51	-29198918.31	-29198918.09	0.0136	0.0076
Uranus	-84655-09-25 04:04 J	-29198548.51	-29198548.33	-29198548.12	0.0135	0.0088
Uranus	-84654-09-29 11:44 J	-29198179.19	-29198179.01	-29198178.79	0.0135	0.0085
Uranus	-84653-10-03 09:20 J	-29197809.26	-29197809.11	-29197808.94	0.0134	0.0105
Uranus	-84652-10-07 15:35 J	-29197440.01	-29197439.85	-29197439.66	0.0134	0.0098
Uranus	-84651-10-12 10:47 J	-29197070.17	-29197070.05	-29197069.91	0.0134	0.0114
Uranus	-84650-10-16 15:20 J	-29196700.97	-29196700.86	-29196700.71	0.0133	0.0115
Uranus	-84649-10-20 07:40 J	-29196331.28	-29196331.18	-29196331.04	0.0133	0.0117
Uranus	-84648-10-24 11:30 J	-29195962.08	-29195962.02	-29195961.94	0.0133	0.0128
Uranus	-84647-10-29 01:40 J	-29195592.52	-29195592.43	-29195592.31	0.0132	0.0120
Saturn	-84645-01-04 06:56 J	-29195160.37	-29195160.21	-29195160.03	0.0280	0.0204
Uranus	-84645-11-05 16:04 J	-29194853.88	-29194853.83	-29194853.75	0.0132	0.0127
Saturn	-84644-01-15 12:13 J	-29194783.20	-29194782.99	-29194782.76	0.0277	0.0111
Saturn	-84643-01-27 16:18 J	-29194406.05	-29194405.82	-29194405.59	0.0275	0.0012
Saturn	-84642-02-08 15:49 J	-29194029.06	-29194028.84	-29194028.61	0.0273	0.0091
Uranus	-84642-11-18 04:18 J	-29193746.33	-29193746.32	-29193746.26	0.0131	0.0131
Saturn	-84641-02-20 04:18 J	-29193652.47	-29193652.32	-29193652.14	0.0271	0.0199
Uranus	-84640-11-25 12:42 J	-29193008.02	-29193007.97	-29193007.87	0.0131	0.0126
Uranus	-84638-12-03 18:42 J	-29192269.79	-29192269.72	-29192269.60	0.0131	0.0123

Neptune -84637-03-21 22:32 J -29192160.61 -29192160.56 -29192160.47 0.0089 0.0085
 Uranus -84637-12-07 02:23 J -29191900.43 -29191900.40 -29191900.36 0.0131 0.0130
 Neptune -84636-03-24 09:20 J -29191793.25 -29191793.11 -29191792.92 0.0089 0.0068
 Jupiter -84636-09-24 17:30 J -29191608.96 -29191608.77 -29191608.57 0.0506 0.0289
 Uranus -84636-12-10 23:59 J -29191531.59 -29191531.50 -29191531.38 0.0132 0.0120
 Neptune -84635-03-26 19:40 J -29191425.89 -29191425.68 -29191425.44 0.0089 0.0037
 Uranus -84635-12-15 07:11 J -29191162.30 -29191162.20 -29191162.08 0.0132 0.0118
 Neptune -84634-03-29 01:40 J -29191058.68 -29191058.43 -29191058.17 0.0089 0.0020
 Uranus -84634-12-19 04:47 J -29190793.40 -29190793.30 -29190793.17 0.0132 0.0118
 Neptune -84633-03-30 16:32 J -29190691.06 -29190690.81 -29190690.57 0.0089 0.0011
 Uranus -84633-12-22 11:59 J -29190424.13 -29190424.00 -29190423.84 0.0132 0.0106
 Neptune -84632-04-01 19:25 J -29190323.92 -29190323.69 -29190323.44 0.0089 0.0028
 Uranus -84632-12-26 09:35 J -29190055.22 -29190055.10 -29190054.95 0.0132 0.0112
 Neptune -84631-04-04 11:44 J -29189956.17 -29189956.01 -29189955.80 0.0089 0.0060
 Uranus -84631-12-30 16:32 J -29189685.96 -29189685.81 -29189685.62 0.0133 0.0093
 Jupiter -84630-03-20 13:40 J -29189606.09 -29189605.93 -29189605.76 0.0523 0.0368
 Neptune -84630-04-06 15:35 J -29189588.96 -29189588.85 -29189588.71 0.0089 0.0077
 Saturn -84630-06-29 23:44 J -29189504.66 -29189504.51 -29189504.36 0.0279 0.0220
 Uranus -84629-01-03 13:54 J -29189317.07 -29189316.92 -29189316.73 0.0133 0.0098
 Mars -84629-06-23 02:37 J -29189145.46 -29189145.39 -29189145.32 0.1616 0.1497
 Saturn -84629-07-12 23:59 J -29189125.72 -29189125.50 -29189125.26 0.0282 0.0102
 Uranus -84628-01-06 21:06 J -29188947.80 -29188947.62 -29188947.42 0.0133 0.0082
 Saturn -84628-07-27 06:28 J -29188746.48 -29188746.23 -29188745.97 0.0284 0.0026
 Uranus -84627-01-10 18:42 J -29188578.91 -29188578.72 -29188578.51 0.0134 0.0081
 Saturn -84627-08-10 17:44 J -29188366.97 -29188366.76 -29188366.53 0.0286 0.0154
 Uranus -84626-01-15 02:23 J -29188209.60 -29188209.40 -29188209.19 0.0134 0.0074
 Saturn -84626-08-25 10:32 J -29187987.12 -29187987.06 -29187986.98 0.0288 0.0277
 Uranus -84625-01-19 00:13 J -29187840.70 -29187840.49 -29187840.25 0.0135 0.0061
 Uranus -84624-01-22 09:06 J -29187471.33 -29187471.12 -29187470.90 0.0135 0.0061
 Jupiter -84624-09-29 10:32 J -29187221.31 -29187221.06 -29187220.82 0.0508 0.0007

Uranus	-84623-01-26 08:23 J	-29187102.38	-29187102.15	-29187101.90	0.0136	0.0039
Uranus	-84622-01-30 18:13 J	-29186732.96	-29186732.74	-29186732.51	0.0136	0.0044
Uranus	-84621-02-03 18:56 J	-29186363.96	-29186363.71	-29186363.46	0.0137	0.0023
Uranus	-84620-02-07 05:44 J	-29185994.49	-29185994.26	-29185994.02	0.0137	0.0022
Uranus	-84619-02-11 08:08 J	-29185625.42	-29185625.16	-29185624.91	0.0138	0.0009
Uranus	-84618-02-15 19:54 J	-29185255.90	-29185255.67	-29185255.42	0.0138	0.0006
Jupiter	-84618-03-24 19:54 J	-29185218.89	-29185218.67	-29185218.45	0.0521	0.0121
Uranus	-84617-02-19 23:59 J	-29184886.75	-29184886.50	-29184886.25	0.0139	0.0007
Saturn	-84617-12-28 23:16 J	-29184573.64	-29184573.53	-29184573.41	0.0282	0.0244
Uranus	-84616-02-23 13:11 J	-29184517.18	-29184516.95	-29184516.71	0.0139	0.0030
Saturn	-84615-01-10 16:47 J	-29184195.99	-29184195.80	-29184195.59	0.0279	0.0147
Uranus	-84615-02-27 19:25 J	-29184147.94	-29184147.69	-29184147.44	0.0140	0.0026
Saturn	-84614-01-22 20:23 J	-29183818.89	-29183818.65	-29183818.40	0.0277	0.0051
Uranus	-84614-03-04 09:49 J	-29183778.30	-29183778.09	-29183777.86	0.0141	0.0049
Saturn	-84613-02-03 14:52 J	-29183442.11	-29183441.88	-29183441.63	0.0275	0.0050
Uranus	-84613-03-07 18:56 J	-29183408.93	-29183408.71	-29183408.46	0.0141	0.0052
Saturn	-84612-02-14 10:04 J	-29183065.26	-29183065.08	-29183064.89	0.0273	0.0157
Uranus	-84612-03-12 10:47 J	-29183039.25	-29183039.05	-29183038.83	0.0142	0.0064
Jupiter	-84612-10-04 13:11 J	-29182833.16	-29182832.95	-29182832.74	0.0510	0.0229
Saturn	-84611-02-26 04:32 J	-29182688.36	-29182688.31	-29182688.24	0.0271	0.0262
Uranus	-84611-03-16 23:30 J	-29182669.73	-29182669.52	-29182669.31	0.0143	0.0080
Uranus	-84610-03-21 15:49 J	-29182300.03	-29182299.84	-29182299.63	0.0143	0.0079
Uranus	-84609-03-25 07:54 J	-29181930.34	-29181930.17	-29181929.97	0.0144	0.0101
Uranus	-84608-03-30 01:11 J	-29181560.61	-29181560.45	-29181560.26	0.0144	0.0098
Uranus	-84607-04-03 21:20 J	-29181190.75	-29181190.61	-29181190.43	0.0145	0.0113
Jupiter	-84606-03-29 16:04 J	-29180831.05	-29180830.83	-29180830.60	0.0518	0.0112
Uranus	-84606-04-08 15:06 J	-29180820.98	-29180820.87	-29180820.72	0.0145	0.0123
Uranus	-84605-04-12 16:04 J	-29180450.96	-29180450.83	-29180450.68	0.0146	0.0121
Uranus	-84604-04-17 10:18 J	-29180081.12	-29180081.07	-29180081.00	0.0146	0.0141
Uranus	-84603-04-22 14:52 J	-29179710.97	-29179710.88	-29179710.75	0.0146	0.0132

Uranus	-84602-04-27 09:49 J	-29179341.09	-29179341.09	-29179341.05	0.0147	0.0146
Saturn	-84601-06-23 14:23 J	-29178917.98	-29178917.90	-29178917.80	0.0278	0.0261
Uranus	-84600-05-06 13:54 J	-29178600.95	-29178600.92	-29178600.85	0.0147	0.0144
Saturn	-84600-07-07 03:49 J	-29178539.55	-29178539.34	-29178539.12	0.0281	0.0150
Jupiter	-84600-10-09 07:11 J	-29178445.26	-29178445.20	-29178445.13	0.0512	0.0493
Saturn	-84599-07-21 05:44 J	-29178160.51	-29178160.26	-29178160.01	0.0283	0.0027
Uranus	-84598-05-16 22:04 J	-29177860.62	-29177860.58	-29177860.52	0.0147	0.0144
Saturn	-84598-08-04 18:42 J	-29177780.94	-29177780.72	-29177780.49	0.0286	0.0102
Saturn	-84597-08-18 14:08 J	-29177401.04	-29177400.91	-29177400.75	0.0288	0.0230
Uranus	-84595-05-31 19:54 J	-29176749.73	-29176749.67	-29176749.56	0.0147	0.0139
Jupiter	-84594-04-03 00:42 J	-29176443.62	-29176443.47	-29176443.33	0.0516	0.0403
Uranus	-84593-06-10 09:06 J	-29176009.23	-29176009.12	-29176009.00	0.0147	0.0130
Uranus	-84592-06-15 17:59 J	-29175638.87	-29175638.75	-29175638.61	0.0147	0.0128
Uranus	-84591-06-20 23:01 J	-29175268.66	-29175268.54	-29175268.40	0.0146	0.0125
Uranus	-84590-06-26 11:16 J	-29174898.20	-29174898.03	-29174897.83	0.0146	0.0104
Uranus	-84589-06-30 13:25 J	-29174528.10	-29174527.94	-29174527.77	0.0146	0.0110
Uranus	-84588-07-06 03:06 J	-29174157.56	-29174157.37	-29174157.15	0.0145	0.0090
Uranus	-84587-07-11 02:52 J	-29173787.58	-29173787.38	-29173787.16	0.0145	0.0082
Saturn	-84586-01-05 06:13 J	-29173609.41	-29173609.24	-29173609.06	0.0280	0.0190
Uranus	-84586-07-16 16:18 J	-29173417.02	-29173416.82	-29173416.58	0.0144	0.0078
Saturn	-84585-01-17 17:16 J	-29173231.99	-29173231.78	-29173231.56	0.0277	0.0096
Uranus	-84585-07-20 15:20 J	-29173047.10	-29173046.86	-29173046.60	0.0144	0.0052
Saturn	-84584-01-28 23:16 J	-29172854.76	-29172854.53	-29172854.30	0.0275	0.0002
Uranus	-84584-07-26 02:52 J	-29172676.61	-29172676.38	-29172676.13	0.0143	0.0054
Saturn	-84583-02-09 17:44 J	-29172477.98	-29172477.76	-29172477.53	0.0273	0.0106
Uranus	-84583-07-31 02:37 J	-29172306.65	-29172306.39	-29172306.13	0.0143	0.0034
Saturn	-84582-02-21 02:52 J	-29172101.51	-29172101.38	-29172101.22	0.0271	0.0218
Mars	-84582-06-17 17:59 J	-29171984.94	-29171984.75	-29171984.56	0.1605	0.0335
Uranus	-84582-08-05 10:18 J	-29171936.31	-29171936.07	-29171935.81	0.0142	0.0023
Uranus	-84581-08-09 11:01 J	-29171566.30	-29171566.04	-29171565.76	0.0141	0.0020

Uranus	-84580-08-14 14:08 J	-29171196.16	-29171195.91	-29171195.66	0.0141	0.0006
Uranus	-84579-08-19 16:18 J	-29170826.10	-29170825.82	-29170825.55	0.0140	0.0006
Uranus	-84578-08-24 14:08 J	-29170456.16	-29170455.91	-29170455.66	0.0139	0.0025
Uranus	-84577-08-28 16:18 J	-29170086.07	-29170085.82	-29170085.55	0.0139	0.0036
Uranus	-84576-09-02 09:35 J	-29169716.33	-29169716.10	-29169715.84	0.0138	0.0038
Mars	-84576-12-22 01:25 J	-29169605.62	-29169605.44	-29169605.25	0.1936	0.0116
Uranus	-84575-09-07 11:59 J	-29169346.23	-29169346.00	-29169345.74	0.0138	0.0061
Uranus	-84574-09-12 01:40 J	-29168976.65	-29168976.43	-29168976.19	0.0137	0.0057
Uranus	-84573-09-16 03:06 J	-29168606.58	-29168606.37	-29168606.14	0.0137	0.0077
Uranus	-84572-09-20 13:40 J	-29168237.13	-29168236.93	-29168236.72	0.0136	0.0081
Saturn	-84571-07-01 08:23 J	-29167953.32	-29167953.15	-29167952.97	0.0279	0.0200
Uranus	-84571-09-25 13:25 J	-29167867.14	-29167866.94	-29167866.73	0.0135	0.0085
Saturn	-84570-07-15 05:01 J	-29167574.54	-29167574.29	-29167574.04	0.0282	0.0083
Uranus	-84570-09-29 20:52 J	-29167497.78	-29167497.63	-29167497.44	0.0135	0.0102
Saturn	-84569-07-28 07:11 J	-29167195.46	-29167195.20	-29167194.94	0.0284	0.0042
Uranus	-84569-10-03 17:59 J	-29167127.91	-29167127.75	-29167127.54	0.0134	0.0096
Saturn	-84568-08-11 17:59 J	-29166815.94	-29166815.75	-29166815.53	0.0286	0.0170
Uranus	-84568-10-08 00:13 J	-29166758.61	-29166758.49	-29166758.35	0.0134	0.0115
Uranus	-84567-10-12 19:25 J	-29166388.82	-29166388.69	-29166388.54	0.0134	0.0111
Uranus	-84566-10-16 23:30 J	-29166019.62	-29166019.52	-29166019.39	0.0133	0.0120
Uranus	-84565-10-20 16:32 J	-29165649.87	-29165649.81	-29165649.71	0.0133	0.0126
Uranus	-84564-10-24 19:54 J	-29165280.76	-29165280.67	-29165280.55	0.0133	0.0121
Uranus	-84562-11-02 12:42 J	-29164542.04	-29164541.97	-29164541.87	0.0132	0.0125
Uranus	-84560-11-10 01:54 J	-29163803.43	-29163803.42	-29163803.38	0.0132	0.0131
Saturn	-84558-12-31 05:16 J	-29163022.40	-29163022.28	-29163022.13	0.0282	0.0230
Uranus	-84557-11-21 22:04 J	-29162695.62	-29162695.58	-29162695.53	0.0131	0.0129
Saturn	-84556-01-11 17:30 J	-29162644.98	-29162644.77	-29162644.55	0.0279	0.0132
Saturn	-84555-01-23 18:28 J	-29162267.97	-29162267.73	-29162267.49	0.0277	0.0039
Neptune	-84555-09-27 04:04 J	-29162021.46	-29162021.33	-29162021.18	0.0088	0.0075
Uranus	-84555-11-30 05:01 J	-29161957.35	-29161957.29	-29161957.19	0.0131	0.0125

Saturn -84554-02-04 17:59 J -29161890.97 -29161890.75 -29161890.52 0.0275 0.0065
 Neptune -84554-09-29 11:59 J -29161654.18 -29161654.00 -29161653.78 0.0088 0.0056
 Saturn -84553-02-16 16:18 J -29161513.99 -29161513.82 -29161513.63 0.0273 0.0174
 Jupiter -84553-09-23 18:56 J -29161293.90 -29161293.71 -29161293.51 0.0505 0.0302
 Neptune -84553-10-01 06:42 J -29161286.47 -29161286.22 -29161285.95 0.0088 0.0027
 Uranus -84553-12-07 11:16 J -29161219.11 -29161219.03 -29161218.92 0.0131 0.0121
 Neptune -84552-10-03 18:28 J -29160918.98 -29160918.73 -29160918.47 0.0088 0.0006
 Uranus -84552-12-11 08:23 J -29160850.22 -29160850.15 -29160850.05 0.0131 0.0124
 Neptune -84551-10-06 08:23 J -29160551.41 -29160551.15 -29160550.88 0.0088 0.0023
 Uranus -84551-12-15 16:04 J -29160480.91 -29160480.83 -29160480.70 0.0132 0.0119
 Pluto -84550-07-07 18:42 J -29160276.94 -29160276.72 -29160276.45 0.0067 0.0028
 Neptune -84550-10-08 23:30 J -29160183.72 -29160183.52 -29160183.28 0.0088 0.0045
 Uranus -84550-12-19 12:42 J -29160112.09 -29160111.97 -29160111.81 0.0132 0.0111
 Neptune -84549-10-10 08:23 J -29159816.28 -29159816.15 -29159815.97 0.0088 0.0073
 Uranus -84549-12-22 20:37 J -29159742.75 -29159742.64 -29159742.51 0.0132 0.0114
 Uranus -84548-12-26 17:01 J -29159373.95 -29159373.79 -29159373.61 0.0132 0.0097
 Jupiter -84547-03-19 10:04 J -29159291.21 -29159291.08 -29159290.95 0.0523 0.0416
 Uranus -84547-12-31 00:28 J -29159004.61 -29159004.48 -29159004.31 0.0133 0.0104
 Uranus -84545-01-03 21:06 J -29158635.81 -29158635.62 -29158635.42 0.0133 0.0083
 Uranus -84544-01-07 05:16 J -29158266.45 -29158266.28 -29158266.09 0.0133 0.0088
 Uranus -84543-01-11 01:54 J -29157897.62 -29157897.42 -29157897.20 0.0134 0.0074
 Uranus -84542-01-15 10:47 J -29157528.25 -29157528.05 -29157527.83 0.0134 0.0068
 Saturn -84542-06-25 17:01 J -29157366.92 -29157366.79 -29157366.67 0.0278 0.0241
 Uranus -84541-01-19 07:54 J -29157159.38 -29157159.17 -29157158.94 0.0135 0.0064
 Saturn -84541-07-08 10:47 J -29156988.26 -29156988.05 -29156987.83 0.0281 0.0132
 Jupiter -84541-09-28 17:44 J -29156905.99 -29156905.76 -29156905.53 0.0507 0.0043
 Uranus -84540-01-22 17:30 J -29156789.99 -29156789.77 -29156789.54 0.0135 0.0045
 Saturn -84540-07-22 16:32 J -29156609.06 -29156608.81 -29156608.57 0.0283 0.0010
 Uranus -84539-01-26 15:35 J -29156421.08 -29156420.85 -29156420.61 0.0135 0.0049
 Saturn -84539-08-06 05:30 J -29156229.49 -29156229.27 -29156229.04 0.0286 0.0120

Uranus	-84538-01-31 01:54 J	-29156051.65	-29156051.42	-29156051.18	0.0136	0.0026
Saturn	-84538-08-20 22:18 J	-29155849.69	-29155849.57	-29155849.42	0.0288	0.0244
Uranus	-84537-02-04 01:25 J	-29155682.68	-29155682.44	-29155682.19	0.0137	0.0030
Uranus	-84536-02-07 13:25 J	-29155313.18	-29155312.94	-29155312.70	0.0137	0.0011
Uranus	-84535-02-11 14:37 J	-29154944.14	-29154943.89	-29154943.64	0.0138	0.0004
Jupiter	-84535-03-24 08:23 J	-29154903.37	-29154903.15	-29154902.93	0.0521	0.0161
Mars	-84535-06-11 17:16 J	-29154823.88	-29154823.78	-29154823.69	0.1597	0.1403
Uranus	-84534-02-16 03:49 J	-29154574.58	-29154574.34	-29154574.10	0.0138	0.0005
Uranus	-84533-02-20 06:56 J	-29154205.46	-29154205.21	-29154204.97	0.0139	0.0023
Uranus	-84532-02-23 21:06 J	-29153835.85	-29153835.62	-29153835.38	0.0139	0.0022
Uranus	-84531-02-28 02:08 J	-29153466.64	-29153466.41	-29153466.16	0.0140	0.0046
Uranus	-84530-03-04 17:30 J	-29153096.99	-29153096.77	-29153096.53	0.0141	0.0044
Uranus	-84529-03-08 01:11 J	-29152727.67	-29152727.45	-29152727.21	0.0141	0.0063
Jupiter	-84529-10-03 12:42 J	-29152518.20	-29152517.97	-29152517.74	0.0509	0.0188
Saturn	-84529-12-24 17:01 J	-29152435.83	-29152435.79	-29152435.71	0.0282	0.0274
Uranus	-84528-03-12 18:13 J	-29152357.94	-29152357.74	-29152357.53	0.0142	0.0071
Saturn	-84527-01-06 11:59 J	-29152058.17	-29152058.00	-29152057.81	0.0280	0.0177
Uranus	-84527-03-17 05:01 J	-29151988.51	-29151988.29	-29151988.08	0.0143	0.0076
Saturn	-84526-01-19 01:40 J	-29151680.65	-29151680.43	-29151680.21	0.0277	0.0082
Uranus	-84526-03-21 22:47 J	-29151618.71	-29151618.55	-29151618.36	0.0143	0.0096
Saturn	-84525-01-31 02:37 J	-29151303.63	-29151303.39	-29151303.14	0.0275	0.0018
Uranus	-84525-03-25 13:40 J	-29151249.12	-29151248.93	-29151248.73	0.0144	0.0091
Saturn	-84524-02-10 17:16 J	-29150926.99	-29150926.78	-29150926.56	0.0273	0.0124
Uranus	-84524-03-30 08:37 J	-29150879.27	-29150879.14	-29150878.98	0.0144	0.0113
Saturn	-84523-02-22 07:40 J	-29150550.28	-29150550.18	-29150550.04	0.0271	0.0231
Jupiter	-84523-03-28 17:59 J	-29150515.97	-29150515.75	-29150515.52	0.0519	0.0087
Uranus	-84523-04-04 03:35 J	-29150509.49	-29150509.35	-29150509.17	0.0145	0.0114
Uranus	-84522-04-08 23:30 J	-29150139.64	-29150139.52	-29150139.39	0.0145	0.0123
Uranus	-84521-04-12 22:32 J	-29149769.63	-29149769.56	-29149769.45	0.0146	0.0137
Uranus	-84520-04-17 18:13 J	-29149399.83	-29149399.74	-29149399.61	0.0146	0.0130

Uranus	-84518-04-27 17:01 J	-29148659.82	-29148659.79	-29148659.71	0.0147	0.0143
Jupiter	-84517-10-08 09:06 J	-29148130.20	-29148130.12	-29148130.02	0.0512	0.0470
Uranus	-84515-05-12 06:56 J	-29147549.24	-29147549.21	-29147549.14	0.0147	0.0145
Uranus	-84513-05-21 16:32 J	-29146808.82	-29146808.81	-29146808.77	0.0147	0.0147
Uranus	-84512-05-26 16:04 J	-29146438.85	-29146438.83	-29146438.76	0.0147	0.0146
Saturn	-84512-07-02 14:52 J	-29146402.06	-29146401.88	-29146401.67	0.0279	0.0180
Jupiter	-84511-04-02 15:06 J	-29146128.01	-29146127.87	-29146127.72	0.0517	0.0386
Saturn	-84511-07-16 08:52 J	-29146023.38	-29146023.13	-29146022.87	0.0282	0.0063
Uranus	-84510-06-06 07:25 J	-29145698.30	-29145698.19	-29145698.06	0.0147	0.0132
Saturn	-84510-07-30 12:56 J	-29145644.20	-29145643.96	-29145643.71	0.0284	0.0062
Uranus	-84509-06-10 17:16 J	-29145327.85	-29145327.78	-29145327.69	0.0147	0.0139
Saturn	-84509-08-13 03:49 J	-29145264.51	-29145264.34	-29145264.14	0.0286	0.0187
Uranus	-84508-06-16 00:28 J	-29144957.62	-29144957.48	-29144957.34	0.0147	0.0124
Uranus	-84507-06-21 06:28 J	-29144587.36	-29144587.23	-29144587.05	0.0146	0.0115
Uranus	-84506-06-26 17:44 J	-29144216.91	-29144216.76	-29144216.59	0.0146	0.0116
Uranus	-84505-06-30 20:37 J	-29143846.82	-29143846.64	-29143846.43	0.0146	0.0093
Uranus	-84504-07-06 10:04 J	-29143476.27	-29143476.08	-29143475.86	0.0145	0.0094
Mars	-84503-06-20 04:18 J	-29143127.51	-29143127.32	-29143127.13	0.1608	0.0607
Uranus	-84503-07-11 10:47 J	-29143106.27	-29143106.05	-29143105.84	0.0145	0.0079
Uranus	-84502-07-17 00:28 J	-29142735.71	-29142735.48	-29142735.23	0.0144	0.0061
Uranus	-84501-07-20 23:16 J	-29142365.76	-29142365.53	-29142365.29	0.0144	0.0062
Uranus	-84500-07-26 11:16 J	-29141995.27	-29141995.03	-29141994.77	0.0143	0.0037
Uranus	-84499-07-31 09:49 J	-29141625.34	-29141625.09	-29141624.82	0.0143	0.0035
Saturn	-84498-01-01 08:08 J	-29141471.32	-29141471.16	-29141471.00	0.0282	0.0217
Uranus	-84498-08-05 18:42 J	-29141254.97	-29141254.72	-29141254.46	0.0142	0.0022
Saturn	-84497-01-13 17:01 J	-29141094.00	-29141093.79	-29141093.56	0.0279	0.0122
Uranus	-84497-08-09 17:59 J	-29140885.02	-29140884.75	-29140884.48	0.0141	0.0003
Mars	-84497-12-25 02:52 J	-29140747.55	-29140747.38	-29140747.22	0.1932	0.0787
Saturn	-84496-01-24 22:47 J	-29140716.78	-29140716.55	-29140716.31	0.0277	0.0024
Uranus	-84496-08-14 22:47 J	-29140514.81	-29140514.55	-29140514.30	0.0141	0.0003

Saturn -84495-02-06 02:23 J -29140339.62 -29140339.40 -29140339.18 0.0275 0.0082
 Uranus -84495-08-19 23:16 J -29140144.79 -29140144.53 -29140144.25 0.0140 0.0023
 Saturn -84494-02-17 21:06 J -29139962.80 -29139962.62 -29139962.45 0.0273 0.0187
 Uranus -84494-08-24 23:01 J -29139774.78 -29139774.54 -29139774.28 0.0139 0.0026
 Uranus -84493-08-29 00:28 J -29139404.73 -29139404.48 -29139404.21 0.0139 0.0037
 Uranus -84492-09-02 19:25 J -29139034.91 -29139034.69 -29139034.45 0.0138 0.0055
 Uranus -84491-09-07 20:52 J -29138664.87 -29138664.63 -29138664.37 0.0138 0.0053
 Uranus -84490-09-12 11:16 J -29138295.23 -29138295.03 -29138294.80 0.0137 0.0076
 Uranus -84489-09-16 11:44 J -29137925.23 -29137925.01 -29137924.78 0.0137 0.0075
 Uranus -84488-09-20 22:47 J -29137555.75 -29137555.55 -29137555.36 0.0136 0.0087
 Uranus -84487-09-25 21:20 J -29137185.77 -29137185.61 -29137185.41 0.0136 0.0098
 Uranus -84486-09-30 05:16 J -29136816.44 -29136816.28 -29136816.07 0.0135 0.0095
 Uranus -84485-10-04 02:52 J -29136446.49 -29136446.38 -29136446.22 0.0135 0.0115
 Uranus -84484-10-08 09:06 J -29136077.26 -29136077.12 -29136076.94 0.0134 0.0107
 Saturn -84483-06-27 03:49 J -29135815.47 -29135815.34 -29135815.19 0.0278 0.0225
 Uranus -84483-10-13 04:47 J -29135707.38 -29135707.30 -29135707.18 0.0134 0.0124
 Saturn -84482-07-11 00:56 J -29135436.68 -29135436.46 -29135436.23 0.0281 0.0112
 Uranus -84482-10-17 09:20 J -29135338.21 -29135338.11 -29135338.01 0.0133 0.0122
 Saturn -84481-07-24 05:16 J -29135057.53 -29135057.28 -29135057.03 0.0283 0.0011
 Uranus -84481-10-21 02:52 J -29134968.46 -29134968.38 -29134968.29 0.0133 0.0124
 Saturn -84480-08-07 14:37 J -29134678.11 -29134677.89 -29134677.65 0.0286 0.0136
 Saturn -84479-08-22 04:32 J -29134298.42 -29134298.31 -29134298.19 0.0288 0.0257
 Uranus -84479-10-29 20:23 J -29134229.70 -29134229.65 -29134229.55 0.0132 0.0126
 Uranus -84477-11-06 10:47 J -29133491.05 -29133491.05 -29133491.00 0.0132 0.0131
 Neptune -84472-03-23 23:30 J -29131892.66 -29131892.52 -29131892.38 0.0089 0.0072
 Uranus -84472-11-26 05:30 J -29131645.31 -29131645.27 -29131645.19 0.0131 0.0128
 Neptune -84471-03-26 04:18 J -29131525.51 -29131525.32 -29131525.09 0.0089 0.0054
 Neptune -84470-03-28 19:40 J -29131157.90 -29131157.68 -29131157.43 0.0089 0.0025
 Jupiter -84470-09-24 00:13 J -29130978.66 -29130978.49 -29130978.31 0.0505 0.0335
 Uranus -84470-12-04 11:59 J -29130907.08 -29130907.00 -29130906.89 0.0131 0.0122

Saturn -84470-12-27 02:08 J -29130884.50 -29130884.41 -29130884.32 0.0282 0.0261
 Neptune -84469-03-29 22:47 J -29130790.80 -29130790.55 -29130790.30 0.0089 0.0005
 Uranus -84469-12-07 21:06 J -29130537.65 -29130537.62 -29130537.57 0.0131 0.0130
 Saturn -84468-01-07 22:47 J -29130506.73 -29130506.55 -29130506.35 0.0280 0.0163
 Neptune -84468-04-01 14:52 J -29130423.12 -29130422.88 -29130422.63 0.0089 0.0024
 Uranus -84468-12-11 17:16 J -29130168.87 -29130168.78 -29130168.65 0.0131 0.0118
 Saturn -84467-01-20 07:54 J -29130129.40 -29130129.17 -29130128.93 0.0277 0.0065
 Neptune -84467-04-03 18:28 J -29130055.93 -29130055.73 -29130055.50 0.0089 0.0043
 Uranus -84467-12-16 02:08 J -29129799.51 -29129799.41 -29129799.29 0.0132 0.0117
 Saturn -84466-02-01 04:04 J -29129752.57 -29129752.33 -29129752.09 0.0275 0.0035
 Neptune -84466-04-06 07:54 J -29129688.30 -29129688.17 -29129687.99 0.0089 0.0072
 Uranus -84466-12-19 22:04 J -29129430.69 -29129430.58 -29129430.44 0.0132 0.0115
 Saturn -84465-02-12 22:04 J -29129375.78 -29129375.58 -29129375.38 0.0273 0.0141
 Uranus -84465-12-23 06:56 J -29129061.36 -29129061.21 -29129061.05 0.0132 0.0102
 Pluto -84464-01-09 18:28 J -29129043.85 -29129043.73 -29129043.61 0.0078 0.0069
 Saturn -84464-02-23 17:44 J -29128998.85 -29128998.76 -29128998.67 0.0271 0.0247
 Jupiter -84464-03-18 22:47 J -29128975.67 -29128975.55 -29128975.42 0.0524 0.0441
 Uranus -84464-12-27 02:23 J -29128692.53 -29128692.40 -29128692.23 0.0132 0.0108
 Uranus -84463-12-31 11:16 J -29128323.21 -29128323.03 -29128322.85 0.0133 0.0087
 Uranus -84461-01-04 06:13 J -29127954.39 -29127954.24 -29127954.04 0.0133 0.0094
 Uranus -84460-01-07 15:06 J -29127585.06 -29127584.87 -29127584.66 0.0133 0.0076
 Uranus -84459-01-11 11:01 J -29127216.24 -29127216.04 -29127215.82 0.0134 0.0076
 Uranus -84458-01-15 19:54 J -29126846.87 -29126846.67 -29126846.44 0.0134 0.0066
 Jupiter -84458-09-28 17:59 J -29126591.00 -29126590.75 -29126590.51 0.0507 0.0079
 Uranus -84457-01-19 16:47 J -29126478.02 -29126477.80 -29126477.56 0.0134 0.0053
 Uranus -84456-01-23 02:52 J -29126108.59 -29126108.38 -29126108.14 0.0135 0.0053
 Mars -84456-06-14 04:47 J -29125966.49 -29125966.30 -29125966.11 0.1599 0.0498
 Uranus -84455-01-27 00:28 J -29125739.71 -29125739.48 -29125739.22 0.0135 0.0032
 Uranus -84454-01-31 11:59 J -29125370.23 -29125370.00 -29125369.76 0.0136 0.0036
 Saturn -84454-06-21 13:11 J -29125229.00 -29125228.95 -29125228.87 0.0277 0.0268

Uranus -84453-02-04 11:01 J -29125001.28 -29125001.04 -29125000.78 0.0136 0.0014
 Saturn -84453-07-03 21:20 J -29124850.81 -29124850.61 -29124850.39 0.0280 0.0159
 Uranus -84452-02-07 23:30 J -29124631.76 -29124631.52 -29124631.27 0.0137 0.0013
 Jupiter -84452-03-23 08:23 J -29124588.36 -29124588.15 -29124587.94 0.0522 0.0197
 Saturn -84452-07-17 17:59 J -29124471.99 -29124471.75 -29124471.50 0.0282 0.0042
 Uranus -84451-02-11 23:44 J -29124262.76 -29124262.51 -29124262.26 0.0138 0.0004
 Saturn -84451-08-01 02:37 J -29124092.62 -29124092.39 -29124092.15 0.0284 0.0081
 Uranus -84450-02-16 13:11 J -29123893.19 -29123892.95 -29123892.71 0.0138 0.0015
 Saturn -84450-08-15 20:23 J -29123712.82 -29123712.65 -29123712.48 0.0287 0.0203
 Uranus -84449-02-20 14:52 J -29123524.12 -29123523.88 -29123523.62 0.0139 0.0019
 Uranus -84448-02-24 05:44 J -29123154.48 -29123154.26 -29123154.02 0.0139 0.0041
 Uranus -84447-02-28 09:49 J -29122785.32 -29122785.09 -29122784.84 0.0140 0.0036
 Uranus -84446-03-05 02:37 J -29122415.61 -29122415.39 -29122415.17 0.0141 0.0060
 Jupiter -84446-10-03 16:32 J -29122203.03 -29122202.81 -29122202.59 0.0509 0.0159
 Uranus -84445-03-08 09:06 J -29122046.34 -29122046.12 -29122045.88 0.0141 0.0062
 Uranus -84444-03-13 03:20 J -29121676.56 -29121676.36 -29121676.15 0.0142 0.0075
 Uranus -84443-03-17 12:56 J -29121307.15 -29121306.96 -29121306.75 0.0142 0.0089
 Uranus -84442-03-22 08:08 J -29120937.34 -29120937.16 -29120936.96 0.0143 0.0088
 Uranus -84441-03-25 21:06 J -29120567.76 -29120567.62 -29120567.44 0.0144 0.0111
 Jupiter -84440-03-28 01:40 J -29120200.65 -29120200.43 -29120200.21 0.0519 0.0044
 Uranus -84440-03-30 17:44 J -29120197.92 -29120197.76 -29120197.59 0.0144 0.0107
 Saturn -84439-01-02 10:04 J -29119920.24 -29119920.08 -29119919.90 0.0282 0.0207
 Uranus -84439-04-04 10:32 J -29119828.17 -29119828.06 -29119827.91 0.0145 0.0124
 Saturn -84438-01-14 22:47 J -29119542.76 -29119542.55 -29119542.33 0.0279 0.0107
 Uranus -84438-04-09 07:25 J -29119458.28 -29119458.19 -29119458.07 0.0145 0.0131
 Saturn -84437-01-27 08:37 J -29119165.37 -29119165.14 -29119164.91 0.0277 0.0008
 Uranus -84437-04-13 05:16 J -29119088.39 -29119088.28 -29119088.16 0.0146 0.0130
 Saturn -84436-02-07 09:06 J -29118788.34 -29118788.12 -29118787.89 0.0275 0.0098
 Saturn -84435-02-18 22:32 J -29118411.72 -29118411.56 -29118411.40 0.0273 0.0205
 Uranus -84435-04-23 04:18 J -29118348.39 -29118348.32 -29118348.22 0.0146 0.0138

Jupiter -84434-10-08 19:40 J -29117814.80 -29117814.68 -29117814.57 0.0511 0.0449
 Uranus -84430-05-17 11:30 J -29116498.04 -29116498.02 -29116497.96 0.0147 0.0146
 Jupiter -84428-04-01 09:20 J -29115813.28 -29115813.11 -29115812.92 0.0517 0.0335
 Uranus -84427-06-01 11:30 J -29115387.08 -29115387.02 -29115386.92 0.0147 0.0139
 Uranus -84426-06-06 13:25 J -29115016.95 -29115016.94 -29115016.88 0.0147 0.0146
 Uranus -84425-06-11 00:56 J -29114646.57 -29114646.46 -29114646.32 0.0147 0.0126
 Uranus -84424-06-16 06:42 J -29114276.34 -29114276.22 -29114276.07 0.0147 0.0126
 Saturn -84424-06-28 19:25 J -29114263.83 -29114263.69 -29114263.51 0.0278 0.0208
 Uranus -84423-06-21 15:06 J -29113906.00 -29113905.87 -29113905.71 0.0146 0.0119
 Saturn -84423-07-12 15:20 J -29113885.09 -29113884.86 -29113884.62 0.0281 0.0092
 Uranus -84422-06-27 00:28 J -29113535.66 -29113535.48 -29113535.27 0.0146 0.0099
 Saturn -84422-07-26 16:32 J -29113506.07 -29113505.81 -29113505.55 0.0283 0.0030
 Uranus -84421-07-01 04:47 J -29113165.46 -29113165.30 -29113165.11 0.0146 0.0104
 Saturn -84421-08-08 23:59 J -29113126.71 -29113126.50 -29113126.27 0.0286 0.0154
 Uranus -84420-07-06 17:01 J -29112795.00 -29112794.79 -29112794.56 0.0145 0.0082
 Saturn -84420-08-23 15:35 J -29112746.91 -29112746.85 -29112746.76 0.0288 0.0274
 Uranus -84419-07-11 17:44 J -29112424.97 -29112424.76 -29112424.53 0.0145 0.0075
 Uranus -84418-07-17 07:11 J -29112054.42 -29112054.20 -29112053.96 0.0144 0.0067
 Uranus -84417-07-21 05:44 J -29111684.50 -29111684.26 -29111684.00 0.0144 0.0043
 Uranus -84416-07-26 18:42 J -29111313.96 -29111313.72 -29111313.46 0.0143 0.0046
 Uranus -84415-07-31 17:16 J -29110944.04 -29110943.78 -29110943.52 0.0143 0.0023
 Uranus -84414-08-06 03:20 J -29110573.61 -29110573.36 -29110573.10 0.0142 0.0014
 Uranus -84413-08-10 01:54 J -29110203.69 -29110203.42 -29110203.15 0.0141 0.0007
 Uranus -84412-08-15 07:54 J -29109833.42 -29109833.17 -29109832.91 0.0141 0.0018
 Uranus -84411-08-20 07:11 J -29109463.47 -29109463.20 -29109462.93 0.0140 0.0016
 Saturn -84411-12-28 14:37 J -29109332.99 -29109332.89 -29109332.77 0.0282 0.0247
 Uranus -84410-08-25 08:23 J -29109093.40 -29109093.15 -29109092.91 0.0140 0.0037
 Saturn -84409-01-10 07:40 J -29108955.38 -29108955.18 -29108954.97 0.0280 0.0149
 Uranus -84409-08-29 07:54 J -29108723.43 -29108723.17 -29108722.91 0.0139 0.0045
 Saturn -84408-01-21 11:30 J -29108578.26 -29108578.02 -29108577.77 0.0277 0.0051

Uranus -84408-09-03 04:04 J -29108353.56 -29108353.33 -29108353.09 0.0138 0.0050
 Saturn -84407-02-02 10:04 J -29108201.31 -29108201.08 -29108200.85 0.0275 0.0051
 Uranus -84407-09-08 04:04 J -29107983.55 -29107983.33 -29107983.09 0.0138 0.0072
 Saturn -84406-02-14 09:06 J -29107824.30 -29107824.12 -29107823.93 0.0273 0.0159
 Uranus -84406-09-12 19:40 J -29107613.89 -29107613.68 -29107613.45 0.0137 0.0069
 Saturn -84405-02-26 02:37 J -29107447.44 -29107447.39 -29107447.31 0.0271 0.0260
 Uranus -84405-09-16 19:25 J -29107243.88 -29107243.69 -29107243.48 0.0137 0.0088
 Uranus -84404-09-21 07:11 J -29106874.37 -29106874.20 -29106873.99 0.0136 0.0091
 Uranus -84403-09-26 05:59 J -29106504.42 -29106504.25 -29106504.04 0.0136 0.0096
 Uranus -84402-09-30 14:52 J -29106135.01 -29106134.88 -29106134.72 0.0135 0.0111
 Uranus -84401-10-04 11:59 J -29105765.15 -29105765.00 -29105764.82 0.0135 0.0105
 Uranus -84400-10-08 18:13 J -29105395.81 -29105395.74 -29105395.63 0.0134 0.0125
 Uranus -84399-10-13 13:40 J -29105026.03 -29105025.93 -29105025.79 0.0134 0.0119
 Uranus -84398-10-17 18:13 J -29104656.81 -29104656.74 -29104656.68 0.0133 0.0129
 Uranus -84397-10-21 11:30 J -29104287.03 -29104287.02 -29104286.97 0.0133 0.0132
 Uranus -84396-10-25 13:54 J -29103917.96 -29103917.92 -29103917.83 0.0133 0.0129
 Saturn -84395-06-22 22:18 J -29103677.67 -29103677.57 -29103677.45 0.0277 0.0249
 Saturn -84394-07-06 10:47 J -29103299.26 -29103299.05 -29103298.83 0.0280 0.0140
 Uranus -84394-11-03 06:56 J -29103179.24 -29103179.21 -29103179.17 0.0132 0.0130
 Saturn -84393-07-19 11:44 J -29102920.25 -29102920.01 -29102919.77 0.0282 0.0022
 Saturn -84392-08-02 21:49 J -29102540.82 -29102540.59 -29102540.36 0.0285 0.0101
 Saturn -84391-08-17 13:25 J -29102161.08 -29102160.94 -29102160.77 0.0287 0.0223
 Neptune -84390-09-28 22:47 J -29101753.73 -29101753.55 -29101753.33 0.0088 0.0061
 Neptune -84389-09-30 11:59 J -29101386.20 -29101386.00 -29101385.76 0.0088 0.0043
 Uranus -84389-11-22 17:44 J -29101332.76 -29101332.76 -29101332.76 0.0131 0.0131
 Neptune -84388-10-03 01:11 J -29101018.72 -29101018.45 -29101018.18 0.0088 0.0011
 Jupiter -84387-09-23 00:28 J -29100663.65 -29100663.48 -29100663.30 0.0504 0.0360
 Neptune -84387-10-05 18:56 J -29100650.97 -29100650.71 -29100650.45 0.0088 0.0007
 Uranus -84387-12-01 00:56 J -29100594.53 -29100594.46 -29100594.38 0.0131 0.0125
 Neptune -84386-10-08 03:20 J -29100283.60 -29100283.36 -29100283.11 0.0088 0.0039

Neptune -84385-10-09 23:16 J -29099915.71 -29099915.53 -29099915.30 0.0088 0.0055
 Uranus -84385-12-08 07:25 J -29099856.29 -29099856.19 -29099856.08 0.0131 0.0119
 Neptune -84384-10-12 05:59 J -29099548.27 -29099548.25 -29099548.20 0.0088 0.0088
 Uranus -84384-12-12 02:52 J -29099487.44 -29099487.38 -29099487.27 0.0131 0.0124
 Uranus -84383-12-16 12:13 J -29099118.09 -29099117.99 -29099117.85 0.0132 0.0116
 Uranus -84382-12-20 07:40 J -29098749.31 -29098749.18 -29098749.03 0.0132 0.0109
 Jupiter -84381-03-17 16:47 J -29098660.87 -29098660.80 -29098660.71 0.0524 0.0486
 Uranus -84381-12-23 16:18 J -29098379.94 -29098379.82 -29098379.67 0.0132 0.0110
 Saturn -84380-01-03 17:59 J -29098368.91 -29098368.75 -29098368.57 0.0281 0.0195
 Uranus -84380-12-27 11:30 J -29098011.18 -29098011.02 -29098010.83 0.0132 0.0092
 Saturn -84379-01-16 10:18 J -29097991.28 -29097991.07 -29097990.85 0.0279 0.0094
 Uranus -84379-12-31 20:08 J -29097641.81 -29097641.66 -29097641.48 0.0133 0.0099
 Saturn -84378-01-28 17:30 J -29097614.01 -29097613.77 -29097613.53 0.0277 0.0008
 Uranus -84377-01-04 15:49 J -29097273.04 -29097272.84 -29097272.64 0.0133 0.0077
 Saturn -84377-02-09 11:44 J -29097237.23 -29097237.01 -29097236.78 0.0275 0.0116
 Mars -84377-06-16 09:20 J -29097109.30 -29097109.11 -29097108.93 0.1600 0.0185
 Uranus -84376-01-08 00:42 J -29096903.65 -29096903.47 -29096903.26 0.0133 0.0083
 Saturn -84376-02-20 01:54 J -29096860.54 -29096860.42 -29096860.27 0.0273 0.0223
 Uranus -84375-01-11 20:23 J -29096534.85 -29096534.65 -29096534.42 0.0134 0.0067
 Jupiter -84375-09-27 21:20 J -29096275.83 -29096275.61 -29096275.38 0.0507 0.0113
 Uranus -84374-01-16 06:28 J -29096165.45 -29096165.23 -29096165.01 0.0134 0.0061
 Uranus -84373-01-20 02:52 J -29095796.61 -29095796.38 -29095796.15 0.0134 0.0055
 Uranus -84372-01-23 13:25 J -29095427.18 -29095426.94 -29095426.71 0.0135 0.0037
 Uranus -84371-01-27 10:18 J -29095058.29 -29095058.07 -29095057.82 0.0135 0.0041
 Uranus -84370-01-31 22:04 J -29094688.82 -29094688.58 -29094688.34 0.0136 0.0017
 Uranus -84369-02-04 20:37 J -29094319.89 -29094319.64 -29094319.40 0.0136 0.0021
 Jupiter -84369-03-22 13:11 J -29094273.15 -29094272.95 -29094272.76 0.0522 0.0252
 Uranus -84368-02-08 09:20 J -29093950.36 -29093950.11 -29093949.87 0.0137 0.0001
 Uranus -84367-02-12 09:06 J -29093581.37 -29093581.12 -29093580.87 0.0138 0.0006
 Uranus -84366-02-16 23:16 J -29093211.77 -29093211.53 -29093211.29 0.0138 0.0016

Uranus	-84365-02-21 00:42 J	-29092842.71	-29092842.47	-29092842.22	0.0139	0.0033
Saturn	-84365-06-30 09:35 J	-29092712.27	-29092712.10	-29092711.91	0.0279	0.0190
Uranus	-84364-02-24 16:18 J	-29092473.06	-29092472.82	-29092472.58	0.0139	0.0032
Saturn	-84364-07-14 01:40 J	-29092333.68	-29092333.43	-29092333.18	0.0281	0.0073
Uranus	-84363-02-28 19:40 J	-29092103.90	-29092103.68	-29092103.45	0.0140	0.0056
Saturn	-84363-07-28 02:23 J	-29091954.65	-29091954.40	-29091954.14	0.0284	0.0050
Jupiter	-84363-10-02 18:56 J	-29091887.95	-29091887.71	-29091887.47	0.0508	0.0116
Uranus	-84362-03-05 12:28 J	-29091734.19	-29091733.98	-29091733.74	0.0141	0.0054
Saturn	-84362-08-11 13:25 J	-29091575.14	-29091574.94	-29091574.74	0.0286	0.0173
Uranus	-84361-03-08 18:13 J	-29091364.94	-29091364.74	-29091364.51	0.0141	0.0075
Uranus	-84360-03-13 12:56 J	-29090995.15	-29090994.96	-29090994.75	0.0142	0.0081
Uranus	-84359-03-17 21:20 J	-29090625.79	-29090625.61	-29090625.39	0.0142	0.0088
Uranus	-84358-03-22 17:59 J	-29090255.90	-29090255.75	-29090255.58	0.0143	0.0106
Uranus	-84357-03-26 06:13 J	-29089886.40	-29089886.24	-29089886.04	0.0144	0.0101
Jupiter	-84357-03-26 22:32 J	-29089885.80	-29089885.56	-29089885.33	0.0520	0.0007
Uranus	-84356-03-31 04:04 J	-29089516.44	-29089516.33	-29089516.20	0.0144	0.0124
Uranus	-84355-04-04 20:08 J	-29089146.78	-29089146.66	-29089146.51	0.0145	0.0122
Uranus	-84354-04-09 18:28 J	-29088776.82	-29088776.73	-29088776.63	0.0145	0.0132
Uranus	-84353-04-13 14:08 J	-29088406.93	-29088406.91	-29088406.84	0.0146	0.0144
Uranus	-84352-04-18 12:28 J	-29088037.05	-29088036.98	-29088036.89	0.0146	0.0137
Saturn	-84352-12-30 01:54 J	-29087781.55	-29087781.42	-29087781.27	0.0282	0.0230
Jupiter	-84351-10-07 08:37 J	-29087500.28	-29087500.14	-29087499.99	0.0510	0.0404
Saturn	-84350-01-11 13:11 J	-29087404.16	-29087403.95	-29087403.72	0.0280	0.0136
Saturn	-84349-01-23 17:59 J	-29087026.99	-29087026.75	-29087026.51	0.0277	0.0037
Saturn	-84348-02-03 21:35 J	-29086649.81	-29086649.60	-29086649.37	0.0275	0.0069
Saturn	-84347-02-15 20:23 J	-29086272.83	-29086272.65	-29086272.47	0.0273	0.0176
Uranus	-84347-05-12 23:16 J	-29086186.53	-29086186.53	-29086186.52	0.0147	0.0147
Jupiter	-84345-03-31 16:18 J	-29085498.00	-29085497.82	-29085497.65	0.0518	0.0313
Uranus	-84345-05-22 09:20 J	-29085446.12	-29085446.11	-29085446.07	0.0147	0.0147
Uranus	-84344-05-27 08:37 J	-29085076.16	-29085076.14	-29085076.12	0.0147	0.0147

Uranus	-84342-06-06 22:32 J	-29084335.66	-29084335.56	-29084335.42	0.0147	0.0130
Uranus	-84341-06-11 10:47 J	-29083965.12	-29083965.05	-29083964.94	0.0147	0.0137
Uranus	-84340-06-16 14:52 J	-29083595.01	-29083594.88	-29083594.70	0.0147	0.0119
Uranus	-84339-06-22 00:13 J	-29083224.63	-29083224.49	-29083224.30	0.0146	0.0111
Uranus	-84338-06-27 08:23 J	-29082854.31	-29082854.15	-29082853.96	0.0146	0.0109
Uranus	-84337-07-01 13:54 J	-29082484.10	-29082483.92	-29082483.70	0.0146	0.0086
Saturn	-84336-06-24 11:44 J	-29082126.14	-29082126.01	-29082125.88	0.0278	0.0234
Uranus	-84336-07-07 01:25 J	-29082113.65	-29082113.44	-29082113.22	0.0145	0.0087
Saturn	-84335-07-08 05:16 J	-29081747.49	-29081747.28	-29081747.06	0.0280	0.0123
Uranus	-84335-07-12 03:20 J	-29081743.57	-29081743.36	-29081743.13	0.0145	0.0070
Uranus	-84334-07-17 16:32 J	-29081373.06	-29081372.81	-29081372.56	0.0144	0.0053
Saturn	-84334-07-22 07:54 J	-29081368.42	-29081368.17	-29081367.92	0.0282	0.0002
Uranus	-84333-07-21 15:20 J	-29081003.09	-29081002.86	-29081002.61	0.0144	0.0053
Saturn	-84333-08-04 16:04 J	-29080989.06	-29080988.83	-29080988.60	0.0285	0.0121
Uranus	-84332-07-27 04:18 J	-29080632.57	-29080632.32	-29080632.06	0.0143	0.0027
Saturn	-84332-08-19 04:47 J	-29080609.44	-29080609.30	-29080609.15	0.0287	0.0239
Uranus	-84331-08-01 01:54 J	-29080262.67	-29080262.42	-29080262.15	0.0143	0.0026
Mars	-84330-06-11 05:01 J	-29079948.38	-29079948.29	-29079948.20	0.1592	0.1365
Uranus	-84330-08-06 12:42 J	-29079892.22	-29079891.97	-29079891.71	0.0142	0.0010
Uranus	-84329-08-10 10:18 J	-29079522.34	-29079522.07	-29079521.81	0.0141	0.0009
Uranus	-84328-08-15 17:30 J	-29079152.02	-29079151.77	-29079151.51	0.0141	0.0010
Uranus	-84327-08-20 15:35 J	-29078782.11	-29078781.85	-29078781.58	0.0140	0.0035
Uranus	-84326-08-25 18:13 J	-29078411.98	-29078411.74	-29078411.49	0.0140	0.0036
Uranus	-84325-08-29 16:47 J	-29078042.04	-29078041.80	-29078041.54	0.0139	0.0050
Uranus	-84324-09-03 14:23 J	-29077672.11	-29077671.90	-29077671.66	0.0138	0.0066
Uranus	-84323-09-08 13:25 J	-29077302.18	-29077301.94	-29077301.70	0.0138	0.0064
Saturn	-84323-12-24 07:40 J	-29077195.23	-29077195.18	-29077195.10	0.0283	0.0273
Uranus	-84322-09-13 06:13 J	-29076932.43	-29076932.24	-29076932.04	0.0137	0.0088
Saturn	-84321-01-06 07:40 J	-29076817.34	-29076817.18	-29076816.99	0.0281	0.0180
Uranus	-84321-09-17 04:18 J	-29076562.52	-29076562.32	-29076562.10	0.0137	0.0085

Saturn -84320-01-17 22:04 J -29076439.80 -29076439.58 -29076439.35 0.0279 0.0081
 Uranus -84320-09-21 17:01 J -29076192.94 -29076192.79 -29076192.60 0.0136 0.0099
 Saturn -84319-01-29 23:01 J -29076062.79 -29076062.54 -29076062.29 0.0276 0.0024
 Uranus -84319-09-26 14:37 J -29075823.03 -29075822.89 -29075822.70 0.0136 0.0107
 Saturn -84318-02-10 16:18 J -29075686.02 -29075685.82 -29075685.60 0.0274 0.0133
 Uranus -84318-10-01 00:28 J -29075453.62 -29075453.48 -29075453.31 0.0135 0.0105
 Saturn -84317-02-22 12:13 J -29075309.10 -29075308.99 -29075308.88 0.0273 0.0239
 Uranus -84317-10-04 21:20 J -29075083.69 -29075083.61 -29075083.49 0.0135 0.0124
 Uranus -84316-10-09 04:18 J -29074714.43 -29074714.32 -29074714.17 0.0134 0.0116
 Uranus -84315-10-13 23:59 J -29074344.53 -29074344.50 -29074344.45 0.0134 0.0132
 Uranus -84314-10-18 04:04 J -29073975.37 -29073975.33 -29073975.24 0.0133 0.0130
 Uranus -84313-10-21 22:04 J -29073605.59 -29073605.58 -29073605.54 0.0133 0.0132
 Uranus -84311-10-30 16:18 J -29072866.82 -29072866.82 -29072866.81 0.0132 0.0132
 Neptune -84308-03-23 07:25 J -29071992.29 -29071992.19 -29071992.07 0.0089 0.0080
 Neptune -84307-03-25 22:32 J -29071624.71 -29071624.56 -29071624.38 0.0089 0.0065
 Neptune -84306-03-28 01:11 J -29071257.67 -29071257.45 -29071257.21 0.0089 0.0033
 Saturn -84306-07-02 20:23 J -29071160.85 -29071160.65 -29071160.44 0.0279 0.0172
 Neptune -84305-03-29 17:16 J -29070890.03 -29070889.78 -29070889.53 0.0089 0.0017
 Pluto -84305-07-07 09:06 J -29070790.33 -29070790.12 -29070789.90 0.0066 0.0037
 Saturn -84305-07-15 12:28 J -29070782.22 -29070781.98 -29070781.72 0.0281 0.0054
 Neptune -84304-03-31 20:52 J -29070522.86 -29070522.63 -29070522.38 0.0089 0.0014
 Pluto -84304-07-09 00:42 J -29070423.54 -29070423.47 -29070423.34 0.0067 0.0062
 Saturn -84304-07-29 17:30 J -29070403.01 -29070402.77 -29070402.52 0.0284 0.0069
 Jupiter -84304-09-21 23:30 J -29070348.66 -29070348.52 -29070348.38 0.0504 0.0397
 Uranus -84304-11-27 00:42 J -29070282.49 -29070282.47 -29070282.41 0.0131 0.0130
 Neptune -84303-04-03 09:49 J -29070155.32 -29070155.09 -29070154.83 0.0089 0.0030
 Saturn -84303-08-13 08:23 J -29070023.32 -29070023.15 -29070022.96 0.0286 0.0191
 Neptune -84302-04-05 18:13 J -29069787.89 -29069787.74 -29069787.54 0.0089 0.0063
 Uranus -84302-12-05 07:40 J -29069544.26 -29069544.18 -29069544.07 0.0131 0.0121
 Neptune -84301-04-07 02:37 J -29069420.49 -29069420.39 -29069420.24 0.0089 0.0078

Uranus	-84301-12-08 17:30 J	-29069174.79	-29069174.77	-29069174.70	0.0131	0.0130
Uranus	-84300-12-12 13:25 J	-29068806.05	-29068805.94	-29068805.81	0.0131	0.0116
Uranus	-84299-12-16 22:32 J	-29068436.66	-29068436.56	-29068436.42	0.0132	0.0116
Mars	-84298-06-19 06:28 J	-29068252.39	-29068252.23	-29068252.08	0.1602	0.0826
Uranus	-84298-12-20 18:13 J	-29068067.87	-29068067.74	-29068067.60	0.0132	0.0111
Uranus	-84297-12-24 03:06 J	-29067698.52	-29067698.37	-29067698.19	0.0132	0.0099
Uranus	-84296-12-27 22:04 J	-29067329.72	-29067329.58	-29067329.40	0.0132	0.0103
Uranus	-84294-01-01 07:25 J	-29066960.38	-29066960.19	-29066959.99	0.0133	0.0082
Uranus	-84293-01-05 02:37 J	-29066591.57	-29066591.39	-29066591.20	0.0133	0.0088
Saturn	-84293-12-31 09:49 J	-29066230.24	-29066230.09	-29066229.92	0.0282	0.0215
Uranus	-84292-01-08 11:44 J	-29066222.21	-29066222.01	-29066221.79	0.0133	0.0069
Jupiter	-84292-09-26 21:20 J	-29065960.85	-29065960.61	-29065960.38	0.0505	0.0158
Mars	-84292-12-20 22:18 J	-29065875.78	-29065875.57	-29065875.36	0.1942	0.0544
Uranus	-84291-01-12 07:11 J	-29065853.40	-29065853.20	-29065852.98	0.0134	0.0070
Saturn	-84291-01-12 20:52 J	-29065852.84	-29065852.63	-29065852.41	0.0279	0.0122
Uranus	-84290-01-16 17:16 J	-29065484.01	-29065483.78	-29065483.56	0.0134	0.0057
Saturn	-84290-01-25 05:59 J	-29065475.48	-29065475.25	-29065475.02	0.0277	0.0021
Uranus	-84289-01-20 13:25 J	-29065115.17	-29065114.94	-29065114.70	0.0134	0.0046
Saturn	-84289-02-06 09:49 J	-29065098.31	-29065098.09	-29065097.86	0.0275	0.0084
Uranus	-84288-01-24 00:28 J	-29064745.72	-29064745.48	-29064745.25	0.0135	0.0043
Saturn	-84288-02-17 02:08 J	-29064721.57	-29064721.41	-29064721.23	0.0273	0.0192
Uranus	-84287-01-27 21:35 J	-29064376.84	-29064376.60	-29064376.35	0.0135	0.0022
Uranus	-84286-02-01 09:20 J	-29064007.34	-29064007.11	-29064006.86	0.0136	0.0027
Jupiter	-84286-03-22 10:32 J	-29063958.25	-29063958.06	-29063957.86	0.0523	0.0290
Uranus	-84285-02-05 08:08 J	-29063638.41	-29063638.16	-29063637.91	0.0136	0.0003
Uranus	-84284-02-08 20:52 J	-29063268.87	-29063268.63	-29063268.38	0.0137	0.0003
Uranus	-84283-02-12 20:23 J	-29062899.89	-29062899.65	-29062899.40	0.0138	0.0015
Uranus	-84282-02-17 10:32 J	-29062530.30	-29062530.06	-29062529.82	0.0138	0.0026
Uranus	-84281-02-21 11:44 J	-29062161.25	-29062161.01	-29062160.77	0.0139	0.0030
Uranus	-84280-02-25 03:20 J	-29061791.58	-29061791.36	-29061791.13	0.0139	0.0051

Jupiter -84280-10-01 10:47 J -29061573.28 -29061573.05 -29061572.81 0.0508 0.0071
 Uranus -84279-03-01 06:28 J -29061422.46 -29061422.23 -29061421.99 0.0140 0.0047
 Uranus -84278-03-06 00:13 J -29061052.69 -29061052.49 -29061052.28 0.0141 0.0072
 Uranus -84277-03-09 05:30 J -29060683.47 -29060683.27 -29060683.04 0.0141 0.0072
 Saturn -84277-06-26 05:01 J -29060574.44 -29060574.29 -29060574.14 0.0278 0.0216
 Uranus -84276-03-14 01:11 J -29060313.63 -29060313.45 -29060313.25 0.0142 0.0087
 Saturn -84276-07-09 23:30 J -29060195.74 -29060195.52 -29060195.28 0.0280 0.0103
 Uranus -84275-03-18 09:35 J -29059944.27 -29059944.10 -29059943.91 0.0142 0.0099
 Saturn -84275-07-23 23:30 J -29059816.78 -29059816.52 -29059816.26 0.0283 0.0017
 Uranus -84274-03-23 06:28 J -29059574.38 -29059574.23 -29059574.04 0.0143 0.0099
 Jupiter -84274-03-27 05:44 J -29059570.48 -29059570.26 -29059570.04 0.0521 0.0027
 Saturn -84274-08-07 05:01 J -29059437.52 -29059437.29 -29059437.06 0.0285 0.0138
 Uranus -84273-03-26 17:44 J -29059204.88 -29059204.76 -29059204.61 0.0144 0.0121
 Saturn -84273-08-20 17:30 J -29059057.87 -29059057.77 -29059057.64 0.0287 0.0257
 Uranus -84272-03-31 16:04 J -29058834.96 -29058834.83 -29058834.68 0.0144 0.0116
 Uranus -84271-04-05 06:56 J -29058465.30 -29058465.21 -29058465.11 0.0145 0.0134
 Uranus -84270-04-10 05:44 J -29058095.32 -29058095.26 -29058095.18 0.0145 0.0139
 Uranus -84269-04-14 00:28 J -29057725.53 -29057725.48 -29057725.38 0.0146 0.0139
 Jupiter -84268-10-06 17:16 J -29057184.94 -29057184.78 -29057184.62 0.0510 0.0375
 Uranus -84267-04-23 23:44 J -29056985.54 -29056985.51 -29056985.45 0.0146 0.0144
 Saturn -84264-12-25 23:30 J -29055643.61 -29055643.52 -29055643.43 0.0283 0.0258
 Saturn -84262-01-07 21:06 J -29055265.80 -29055265.62 -29055265.41 0.0281 0.0164
 Jupiter -84262-03-31 18:56 J -29055182.90 -29055182.71 -29055182.51 0.0518 0.0278
 Uranus -84262-05-18 08:37 J -29055135.14 -29055135.14 -29055135.12 0.0147 0.0147
 Saturn -84261-01-20 05:16 J -29054888.52 -29054888.28 -29054888.04 0.0278 0.0065
 Saturn -84260-01-31 04:04 J -29054511.57 -29054511.33 -29054511.09 0.0276 0.0038
 Saturn -84259-02-12 02:37 J -29054134.58 -29054134.39 -29054134.20 0.0274 0.0148
 Uranus -84259-06-02 09:06 J -29054024.20 -29054024.12 -29054024.03 0.0147 0.0138
 Saturn -84258-02-23 23:59 J -29053757.58 -29053757.50 -29053757.42 0.0272 0.0254
 Uranus -84258-06-07 09:06 J -29053654.15 -29053654.12 -29053654.04 0.0147 0.0144

Uranus	-84257-06-11 22:18 J	-29053283.69	-29053283.57	-29053283.41	0.0147	0.0122
Uranus	-84256-06-17 01:54 J	-29052913.56	-29052913.42	-29052913.26	0.0147	0.0122
Uranus	-84255-06-22 12:42 J	-29052543.13	-29052542.97	-29052542.81	0.0147	0.0112
Uranus	-84254-06-27 18:56 J	-29052172.90	-29052172.71	-29052172.49	0.0146	0.0094
Uranus	-84253-07-02 01:40 J	-29051802.60	-29051802.43	-29051802.23	0.0146	0.0097
Uranus	-84252-07-07 11:16 J	-29051432.24	-29051432.03	-29051431.78	0.0145	0.0074
Mars	-84251-06-12 23:16 J	-29051091.67	-29051091.53	-29051091.38	0.1594	0.0962
Uranus	-84251-07-12 14:08 J	-29051062.12	-29051061.91	-29051061.67	0.0145	0.0067
Uranus	-84250-07-18 02:23 J	-29050691.64	-29050691.40	-29050691.15	0.0144	0.0057
Uranus	-84249-07-22 02:08 J	-29050321.66	-29050321.41	-29050321.16	0.0144	0.0033
Saturn	-84248-06-20 21:06 J	-29049987.70	-29049987.62	-29049987.53	0.0277	0.0259
Uranus	-84248-07-27 15:06 J	-29049951.12	-29049950.87	-29049950.62	0.0143	0.0035
Saturn	-84247-07-04 05:30 J	-29049609.47	-29049609.27	-29049609.05	0.0279	0.0153
Uranus	-84247-08-01 12:56 J	-29049581.22	-29049580.96	-29049580.70	0.0143	0.0011
Saturn	-84246-07-18 03:20 J	-29049230.61	-29049230.36	-29049230.12	0.0282	0.0037
Uranus	-84246-08-07 00:13 J	-29049210.75	-29049210.49	-29049210.23	0.0142	0.0003
Saturn	-84245-07-31 12:28 J	-29048851.21	-29048850.98	-29048850.75	0.0284	0.0085
Uranus	-84245-08-10 21:06 J	-29048840.89	-29048840.62	-29048840.35	0.0141	0.0005
Saturn	-84244-08-15 04:32 J	-29048471.47	-29048471.31	-29048471.13	0.0286	0.0208
Uranus	-84244-08-16 05:01 J	-29048470.53	-29048470.29	-29048470.03	0.0141	0.0030
Uranus	-84243-08-21 01:40 J	-29048100.69	-29048100.43	-29048100.16	0.0140	0.0028
Uranus	-84242-08-26 05:16 J	-29047730.51	-29047730.28	-29047730.04	0.0140	0.0050
Uranus	-84241-08-30 01:54 J	-29047360.66	-29047360.42	-29047360.16	0.0139	0.0056
Uranus	-84240-09-04 00:56 J	-29046990.67	-29046990.46	-29046990.22	0.0138	0.0063
Uranus	-84239-09-08 22:18 J	-29046620.78	-29046620.57	-29046620.34	0.0138	0.0083
Uranus	-84238-09-13 16:32 J	-29046251.00	-29046250.81	-29046250.59	0.0137	0.0080
Uranus	-84237-09-17 14:08 J	-29045881.08	-29045880.91	-29045880.71	0.0137	0.0100
Uranus	-84236-09-22 04:47 J	-29045511.47	-29045511.30	-29045511.13	0.0136	0.0100
Uranus	-84235-09-27 01:25 J	-29045141.59	-29045141.44	-29045141.26	0.0136	0.0107
Uranus	-84234-10-01 12:28 J	-29044772.09	-29044771.98	-29044771.87	0.0135	0.0120

Saturn -84233-01-02 18:28 J -29044678.90 -29044678.73 -29044678.55 0.0282 0.0198
 Uranus -84233-10-05 08:08 J -29044402.28 -29044402.16 -29044402.01 0.0135 0.0115
 Saturn -84232-01-14 09:49 J -29044301.30 -29044301.09 -29044300.87 0.0279 0.0104
 Saturn -84231-01-26 19:40 J -29043923.91 -29043923.68 -29043923.44 0.0277 0.0006
 Uranus -84231-10-14 09:49 J -29043663.15 -29043663.09 -29043662.98 0.0134 0.0127
 Saturn -84230-02-07 17:59 J -29043546.97 -29043546.75 -29043546.52 0.0274 0.0099
 Saturn -84229-02-19 06:28 J -29043170.38 -29043170.23 -29043170.07 0.0272 0.0209
 Neptune -84226-09-28 05:59 J -29041853.38 -29041853.25 -29041853.08 0.0088 0.0072
 Neptune -84225-09-29 16:47 J -29041485.99 -29041485.80 -29041485.55 0.0088 0.0054
 Neptune -84224-10-02 11:44 J -29041118.24 -29041118.01 -29041117.74 0.0088 0.0024
 Neptune -84223-10-04 19:40 J -29040750.94 -29040750.68 -29040750.41 0.0088 0.0004
 Neptune -84222-10-07 16:32 J -29040383.06 -29040382.81 -29040382.55 0.0088 0.0025
 Jupiter -84221-09-20 23:59 J -29040033.61 -29040033.50 -29040033.36 0.0503 0.0433
 Neptune -84221-10-08 23:16 J -29040015.75 -29040015.53 -29040015.30 0.0088 0.0046
 Neptune -84220-10-11 18:56 J -29039647.83 -29039647.71 -29039647.54 0.0088 0.0074
 Mars -84219-06-21 03:20 J -29039395.50 -29039395.36 -29039395.22 0.1604 0.1050
 Uranus -84219-12-01 21:35 J -29039231.65 -29039231.60 -29039231.50 0.0131 0.0125
 Pluto -84218-01-12 06:42 J -29039190.45 -29039190.22 -29039189.97 0.0078 0.0019
 Saturn -84218-06-28 21:49 J -29039022.75 -29039022.59 -29039022.40 0.0278 0.0198
 Saturn -84217-07-11 13:25 J -29038644.18 -29038643.94 -29038643.69 0.0281 0.0085
 Uranus -84217-12-09 04:04 J -29038493.42 -29038493.33 -29038493.19 0.0131 0.0118
 Saturn -84216-07-25 10:47 J -29038265.31 -29038265.05 -29038264.79 0.0283 0.0035
 Uranus -84216-12-12 23:30 J -29038124.59 -29038124.52 -29038124.41 0.0131 0.0123
 Saturn -84215-08-08 17:30 J -29037885.97 -29037885.77 -29037885.55 0.0285 0.0156
 Uranus -84215-12-17 08:52 J -29037755.24 -29037755.13 -29037754.98 0.0132 0.0113
 Saturn -84214-08-23 10:04 J -29037506.15 -29037506.08 -29037506.00 0.0287 0.0274
 Uranus -84214-12-21 04:04 J -29037386.46 -29037386.33 -29037386.17 0.0132 0.0107
 Uranus -84213-12-24 13:11 J -29037017.09 -29037016.95 -29037016.80 0.0132 0.0105
 Mars -84213-12-24 23:01 J -29037016.72 -29037016.54 -29037016.37 0.1938 0.0850
 Uranus -84212-12-28 08:08 J -29036648.34 -29036648.16 -29036647.97 0.0132 0.0088

Uranus	-84210-01-01 17:01 J	-29036278.96	-29036278.79	-29036278.61	0.0133	0.0093
Uranus	-84209-01-05 11:59 J	-29035910.19	-29035910.00	-29035909.78	0.0133	0.0072
Jupiter	-84209-09-25 16:18 J	-29035646.04	-29035645.82	-29035645.60	0.0505	0.0201
Uranus	-84208-01-08 21:35 J	-29035540.80	-29035540.60	-29035540.39	0.0133	0.0077
Uranus	-84207-01-12 17:01 J	-29035171.99	-29035171.79	-29035171.55	0.0134	0.0060
Uranus	-84206-01-17 03:20 J	-29034802.58	-29034802.36	-29034802.13	0.0134	0.0054
Uranus	-84205-01-20 23:59 J	-29034433.73	-29034433.50	-29034433.26	0.0134	0.0046
Saturn	-84205-12-27 14:37 J	-29034092.01	-29034091.89	-29034091.77	0.0282	0.0241
Uranus	-84204-01-24 10:32 J	-29034064.29	-29034064.06	-29034063.81	0.0135	0.0029
Saturn	-84203-01-09 05:59 J	-29033714.45	-29033714.25	-29033714.03	0.0280	0.0146
Uranus	-84203-01-28 08:08 J	-29033695.40	-29033695.16	-29033694.92	0.0135	0.0031
Jupiter	-84203-03-21 16:32 J	-29033642.98	-29033642.81	-29033642.64	0.0523	0.0331
Saturn	-84202-01-21 10:32 J	-29033337.30	-29033337.06	-29033336.82	0.0278	0.0051
Uranus	-84202-02-01 19:40 J	-29033325.93	-29033325.68	-29033325.43	0.0136	0.0007
Saturn	-84201-02-02 13:11 J	-29032960.17	-29032959.95	-29032959.72	0.0276	0.0054
Uranus	-84201-02-05 17:59 J	-29032957.00	-29032956.75	-29032956.51	0.0136	0.0011
Uranus	-84200-02-09 06:28 J	-29032587.47	-29032587.23	-29032586.97	0.0137	0.0012
Saturn	-84200-02-13 14:08 J	-29032583.09	-29032582.91	-29032582.72	0.0274	0.0163
Uranus	-84199-02-13 06:13 J	-29032218.48	-29032218.24	-29032217.99	0.0138	0.0016
Saturn	-84199-02-25 05:44 J	-29032206.30	-29032206.26	-29032206.20	0.0272	0.0265
Uranus	-84198-02-17 20:23 J	-29031848.88	-29031848.65	-29031848.40	0.0138	0.0028
Uranus	-84197-02-21 21:49 J	-29031479.82	-29031479.59	-29031479.35	0.0139	0.0044
Jupiter	-84197-09-30 20:37 J	-29031257.88	-29031257.64	-29031257.41	0.0507	0.0040
Uranus	-84196-02-25 13:54 J	-29031110.15	-29031109.92	-29031109.68	0.0139	0.0043
Uranus	-84195-03-01 17:01 J	-29030741.00	-29030740.79	-29030740.57	0.0140	0.0067
Uranus	-84194-03-06 10:32 J	-29030371.26	-29030371.06	-29030370.83	0.0141	0.0065
Uranus	-84193-03-09 15:49 J	-29030002.02	-29030001.84	-29030001.63	0.0141	0.0087
Uranus	-84192-03-14 11:44 J	-29029632.18	-29029632.01	-29029631.81	0.0142	0.0092
Uranus	-84191-03-18 19:40 J	-29029262.85	-29029262.68	-29029262.49	0.0142	0.0099
Jupiter	-84191-03-26 06:56 J	-29029255.45	-29029255.21	-29029254.98	0.0521	0.0066

Uranus	-84190-03-23 17:30 J	-29028892.90	-29028892.77	-29028892.62	0.0143	0.0117
Uranus	-84189-03-27 04:32 J	-29028523.47	-29028523.31	-29028523.15	0.0144	0.0111
Saturn	-84189-06-22 03:20 J	-29028436.47	-29028436.36	-29028436.22	0.0277	0.0241
Uranus	-84188-04-01 03:35 J	-29028153.42	-29028153.35	-29028153.25	0.0144	0.0135
Saturn	-84188-07-05 17:30 J	-29028057.97	-29028057.77	-29028057.55	0.0279	0.0136
Uranus	-84187-04-05 17:30 J	-29027783.85	-29027783.77	-29027783.64	0.0145	0.0131
Saturn	-84187-07-19 19:11 J	-29027678.94	-29027678.70	-29027678.45	0.0282	0.0020
Uranus	-84186-04-10 17:59 J	-29027413.78	-29027413.75	-29027413.69	0.0145	0.0142
Saturn	-84186-08-03 04:32 J	-29027299.55	-29027299.31	-29027299.08	0.0284	0.0103
Saturn	-84185-08-16 17:44 J	-29026919.91	-29026919.76	-29026919.58	0.0287	0.0223
Jupiter	-84185-10-05 08:37 J	-29026870.32	-29026870.14	-29026869.95	0.0509	0.0336
Uranus	-84184-04-19 12:28 J	-29026674.01	-29026673.98	-29026673.94	0.0146	0.0144
Jupiter	-84179-03-30 15:06 J	-29024868.06	-29024867.87	-29024867.67	0.0519	0.0244
Uranus	-84177-05-23 08:52 J	-29024083.15	-29024083.13	-29024083.11	0.0148	0.0147
Saturn	-84176-12-22 07:40 J	-29023505.22	-29023505.18	-29023505.11	0.0284	0.0277
Uranus	-84175-06-02 21:49 J	-29023342.59	-29023342.59	-29023342.59	0.0147	0.0147
Saturn	-84174-01-04 06:42 J	-29023127.40	-29023127.22	-29023127.04	0.0281	0.0182
Uranus	-84174-06-07 21:20 J	-29022972.73	-29022972.61	-29022972.47	0.0147	0.0127
Saturn	-84173-01-16 23:44 J	-29022749.73	-29022749.51	-29022749.29	0.0279	0.0088
Uranus	-84173-06-12 11:01 J	-29022602.14	-29022602.04	-29022601.93	0.0147	0.0133
Saturn	-84172-01-28 04:32 J	-29022372.56	-29022372.31	-29022372.07	0.0276	0.0011
Mars	-84172-06-14 23:44 J	-29022234.71	-29022234.51	-29022234.32	0.1595	0.0041
Uranus	-84172-06-17 12:42 J	-29022232.12	-29022231.97	-29022231.78	0.0147	0.0113
Saturn	-84171-02-08 22:04 J	-29021995.80	-29021995.58	-29021995.36	0.0274	0.0115
Uranus	-84171-06-23 00:13 J	-29021861.64	-29021861.49	-29021861.29	0.0147	0.0106
Saturn	-84170-02-20 14:08 J	-29021619.04	-29021618.91	-29021618.77	0.0272	0.0221
Uranus	-84170-06-28 05:44 J	-29021491.44	-29021491.26	-29021491.05	0.0146	0.0102
Uranus	-84169-07-02 13:54 J	-29021121.12	-29021120.92	-29021120.70	0.0146	0.0079
Uranus	-84168-07-07 23:01 J	-29020750.76	-29020750.54	-29020750.31	0.0145	0.0079
Uranus	-84167-07-13 03:06 J	-29020380.59	-29020380.37	-29020380.13	0.0145	0.0060

Uranus	-84166-07-18 14:37 J	-29020010.14	-29020009.89	-29020009.63	0.0144	0.0044
Uranus	-84165-07-22 15:06 J	-29019640.12	-29019639.87	-29019639.63	0.0144	0.0042
Uranus	-84164-07-28 03:35 J	-29019269.62	-29019269.35	-29019269.09	0.0143	0.0016
Uranus	-84163-08-02 00:56 J	-29018899.72	-29018899.46	-29018899.20	0.0143	0.0015
Uranus	-84162-08-07 12:13 J	-29018529.24	-29018528.99	-29018528.73	0.0142	0.0004
Uranus	-84161-08-11 08:23 J	-29018159.41	-29018159.15	-29018158.88	0.0141	0.0021
Uranus	-84160-08-16 17:30 J	-29017789.03	-29017788.77	-29017788.52	0.0141	0.0022
Saturn	-84159-06-30 07:25 J	-29017471.38	-29017471.19	-29017470.99	0.0279	0.0178
Uranus	-84159-08-21 12:56 J	-29017419.20	-29017418.96	-29017418.69	0.0140	0.0048
Saturn	-84158-07-13 20:52 J	-29017092.88	-29017092.63	-29017092.37	0.0281	0.0066
Uranus	-84158-08-26 17:59 J	-29017048.99	-29017048.75	-29017048.51	0.0140	0.0048
Saturn	-84157-07-26 21:06 J	-29016713.86	-29016713.62	-29016713.37	0.0283	0.0054
Uranus	-84157-08-30 13:40 J	-29016679.16	-29016678.93	-29016678.67	0.0139	0.0063
Saturn	-84156-08-10 09:06 J	-29016334.31	-29016334.12	-29016333.92	0.0286	0.0173
Uranus	-84156-09-04 13:54 J	-29016309.12	-29016308.92	-29016308.70	0.0138	0.0077
Saturn	-84155-08-25 04:47 J	-29015954.30	-29015954.30	-29015954.29	0.0288	0.0288
Uranus	-84155-09-09 09:35 J	-29015939.31	-29015939.10	-29015938.86	0.0138	0.0077
Uranus	-84154-09-14 05:01 J	-29015569.45	-29015569.29	-29015569.10	0.0137	0.0100
Uranus	-84153-09-18 01:25 J	-29015199.63	-29015199.44	-29015199.25	0.0137	0.0095
Uranus	-84152-09-22 16:18 J	-29014829.95	-29014829.82	-29014829.66	0.0136	0.0110
Uranus	-84151-09-27 11:59 J	-29014460.12	-29014460.00	-29014459.85	0.0135	0.0116
Uranus	-84150-10-01 23:44 J	-29014090.62	-29014090.51	-29014090.37	0.0135	0.0116
Uranus	-84149-10-05 18:42 J	-29013720.73	-29013720.72	-29013720.66	0.0134	0.0134
Uranus	-84148-10-10 03:49 J	-29013351.42	-29013351.34	-29013351.25	0.0134	0.0125
Saturn	-84146-12-30 00:13 J	-29012540.64	-29012540.49	-29012540.35	0.0282	0.0225
Saturn	-84144-01-10 11:59 J	-29012163.21	-29012163.00	-29012162.78	0.0280	0.0132
Saturn	-84143-01-22 19:54 J	-29011785.90	-29011785.67	-29011785.44	0.0277	0.0034
Neptune	-84143-03-25 02:52 J	-29011724.51	-29011724.38	-29011724.20	0.0089	0.0070
Saturn	-84142-02-04 01:25 J	-29011408.66	-29011408.44	-29011408.21	0.0275	0.0070
Neptune	-84142-03-27 18:28 J	-29011356.91	-29011356.73	-29011356.49	0.0089	0.0051

Saturn -84141-02-15 22:04 J -29011031.76 -29011031.58 -29011031.39 0.0273 0.0175
 Neptune -84141-03-28 23:30 J -29010989.74 -29010989.52 -29010989.27 0.0089 0.0023
 Neptune -84140-03-31 11:30 J -29010622.28 -29010622.02 -29010621.76 0.0089 0.0003
 Neptune -84139-04-02 20:23 J -29010254.88 -29010254.65 -29010254.41 0.0089 0.0025
 Neptune -84138-04-05 03:06 J -29009887.57 -29009887.37 -29009887.13 0.0089 0.0046
 Jupiter -84138-09-20 22:32 J -29009718.65 -29009718.56 -29009718.47 0.0503 0.0464
 Neptune -84137-04-06 17:30 J -29009519.90 -29009519.77 -29009519.62 0.0089 0.0072
 Uranus -84136-11-27 22:47 J -29008919.55 -29008919.55 -29008919.52 0.0131 0.0131
 Uranus -84134-12-06 05:16 J -29008181.35 -29008181.28 -29008181.16 0.0131 0.0121
 Uranus -84133-12-09 14:52 J -29007811.91 -29007811.88 -29007811.80 0.0131 0.0129
 Uranus -84132-12-13 10:32 J -29007443.17 -29007443.06 -29007442.92 0.0131 0.0114
 Uranus -84131-12-17 19:25 J -29007073.79 -29007073.69 -29007073.54 0.0132 0.0114
 Saturn -84130-06-24 13:25 J -29006885.07 -29006884.94 -29006884.79 0.0277 0.0225
 Uranus -84130-12-21 14:37 J -29006705.00 -29006704.89 -29006704.72 0.0132 0.0108
 Saturn -84129-07-07 06:56 J -29006506.42 -29006506.21 -29006505.98 0.0280 0.0117
 Uranus -84129-12-24 23:44 J -29006335.67 -29006335.51 -29006335.32 0.0132 0.0095
 Saturn -84128-07-21 07:54 J -29006127.43 -29006127.17 -29006126.92 0.0282 0.0004
 Uranus -84128-12-28 18:56 J -29005966.86 -29005966.71 -29005966.53 0.0132 0.0097
 Saturn -84127-08-04 13:25 J -29005748.17 -29005747.94 -29005747.70 0.0285 0.0118
 Uranus -84126-01-02 03:49 J -29005597.53 -29005597.34 -29005597.12 0.0133 0.0077
 Saturn -84126-08-19 00:42 J -29005368.61 -29005368.47 -29005368.31 0.0287 0.0234
 Jupiter -84126-09-26 00:28 J -29005330.69 -29005330.48 -29005330.26 0.0504 0.0236
 Uranus -84125-01-05 23:30 J -29005228.70 -29005228.52 -29005228.32 0.0133 0.0083
 Uranus -84124-01-09 08:23 J -29004859.36 -29004859.15 -29004858.92 0.0133 0.0062
 Uranus -84123-01-13 04:18 J -29004490.52 -29004490.32 -29004490.09 0.0134 0.0063
 Uranus -84122-01-17 13:54 J -29004121.14 -29004120.92 -29004120.68 0.0134 0.0049
 Uranus -84121-01-21 10:47 J -29003752.28 -29003752.05 -29003751.81 0.0134 0.0038
 Uranus -84120-01-24 21:06 J -29003382.86 -29003382.62 -29003382.37 0.0135 0.0034
 Jupiter -84120-03-20 16:04 J -29003327.99 -29003327.83 -29003327.66 0.0524 0.0374
 Uranus -84119-01-28 18:56 J -29003013.95 -29003013.71 -29003013.47 0.0135 0.0013

Uranus	-84118-02-02 06:13 J	-29002644.49	-29002644.24	-29002643.99	0.0136	0.0017
Uranus	-84117-02-06 05:01 J	-29002275.53	-29002275.29	-29002275.05	0.0136	0.0008
Saturn	-84117-12-23 19:54 J	-29001953.74	-29001953.67	-29001953.57	0.0284	0.0263
Uranus	-84116-02-09 17:16 J	-29001906.02	-29001905.78	-29001905.53	0.0137	0.0008
Saturn	-84115-01-05 20:08 J	-29001575.84	-29001575.66	-29001575.47	0.0281	0.0167
Uranus	-84115-02-13 17:16 J	-29001537.02	-29001536.78	-29001536.54	0.0138	0.0026
Saturn	-84114-01-18 08:37 J	-29001198.37	-29001198.14	-29001197.90	0.0279	0.0070
Uranus	-84114-02-18 07:11 J	-29001167.44	-29001167.20	-29001166.96	0.0138	0.0036
Jupiter	-84114-09-30 13:11 J	-29000943.19	-29000942.95	-29000942.70	0.0506	0.0006
Saturn	-84113-01-30 07:40 J	-29000821.43	-29000821.18	-29000820.94	0.0276	0.0028
Uranus	-84113-02-22 08:23 J	-29000798.38	-29000798.15	-29000797.91	0.0139	0.0041
Saturn	-84112-02-10 03:06 J	-29000444.57	-29000444.37	-29000444.16	0.0274	0.0132
Uranus	-84112-02-26 00:13 J	-29000428.71	-29000428.49	-29000428.26	0.0139	0.0062
Saturn	-84111-02-21 23:44 J	-29000067.61	-29000067.51	-29000067.39	0.0272	0.0236
Uranus	-84111-03-02 03:20 J	-29000059.58	-29000059.36	-29000059.13	0.0140	0.0058
Uranus	-84110-03-06 21:20 J	-28999689.80	-28999689.61	-28999689.40	0.0141	0.0084
Uranus	-84109-03-10 02:37 J	-28999320.57	-28999320.39	-28999320.18	0.0141	0.0083
Uranus	-84108-03-14 23:01 J	-28998950.70	-28998950.54	-28998950.35	0.0142	0.0099
Jupiter	-84108-03-25 05:01 J	-28998940.50	-28998940.29	-28998940.07	0.0522	0.0100
Uranus	-84107-03-19 06:28 J	-28998581.37	-28998581.23	-28998581.05	0.0142	0.0110
Uranus	-84106-03-24 05:16 J	-28998211.44	-28998211.28	-28998211.13	0.0143	0.0110
Uranus	-84105-03-27 14:23 J	-28997841.97	-28997841.90	-28997841.78	0.0144	0.0132
Uranus	-84104-04-01 14:37 J	-28997472.00	-28997471.89	-28997471.77	0.0144	0.0126
Uranus	-84103-04-06 03:35 J	-28997102.35	-28997102.35	-28997102.33	0.0145	0.0145
Jupiter	-84102-10-05 14:23 J	-28996555.08	-28996554.90	-28996554.71	0.0508	0.0304
Saturn	-84101-06-18 05:44 J	-28996298.32	-28996298.26	-28996298.18	0.0276	0.0264
Saturn	-84100-07-01 10:32 J	-28995920.27	-28995920.06	-28995919.84	0.0279	0.0159
Saturn	-84099-07-15 03:35 J	-28995541.60	-28995541.35	-28995541.10	0.0281	0.0047
Saturn	-84098-07-29 09:06 J	-28995162.36	-28995162.12	-28995161.88	0.0284	0.0070
Saturn	-84097-08-11 23:44 J	-28994782.68	-28994782.51	-28994782.32	0.0286	0.0187

Jupiter -84096-03-30 04:18 J -28994552.52 -28994552.32 -28994552.11 0.0520 0.0226
 Mars -84093-06-17 08:08 J -28993377.36 -28993377.16 -28993376.96 0.1597 0.0241
 Uranus -84092-05-28 19:25 J -28993031.69 -28993031.69 -28993031.69 0.0148 0.0148
 Uranus -84091-06-03 08:52 J -28992661.22 -28992661.13 -28992661.03 0.0147 0.0137
 Uranus -84090-06-08 08:23 J -28992291.20 -28992291.15 -28992291.06 0.0147 0.0142
 Uranus -84089-06-12 23:01 J -28991920.68 -28991920.54 -28991920.38 0.0147 0.0117
 Uranus -84088-06-18 00:28 J -28991550.62 -28991550.48 -28991550.31 0.0147 0.0118
 Uranus -84087-06-23 13:11 J -28991180.12 -28991179.95 -28991179.77 0.0147 0.0106
 Saturn -84087-12-31 04:18 J -28990989.47 -28990989.32 -28990989.15 0.0282 0.0213
 Uranus -84086-06-28 17:16 J -28990809.99 -28990809.78 -28990809.56 0.0146 0.0088
 Saturn -84085-01-12 19:11 J -28990611.91 -28990611.70 -28990611.48 0.0279 0.0117
 Uranus -84085-07-03 02:23 J -28990439.59 -28990439.40 -28990439.19 0.0146 0.0090
 Saturn -84084-01-24 06:56 J -28990234.44 -28990234.21 -28990233.98 0.0277 0.0018
 Jupiter -84084-04-03 11:01 J -28990165.09 -28990165.04 -28990164.97 0.0517 0.0499
 Uranus -84084-07-08 10:04 J -28990069.32 -28990069.08 -28990068.84 0.0145 0.0064
 Saturn -84083-02-05 09:20 J -28989857.34 -28989857.11 -28989856.88 0.0275 0.0086
 Uranus -84083-07-13 14:52 J -28989699.10 -28989698.88 -28989698.64 0.0145 0.0058
 Saturn -84082-02-16 23:44 J -28989480.67 -28989480.51 -28989480.32 0.0273 0.0192
 Uranus -84082-07-19 01:25 J -28989328.69 -28989328.44 -28989328.18 0.0144 0.0047
 Uranus -84081-07-23 02:52 J -28988958.63 -28988958.38 -28988958.13 0.0144 0.0023
 Uranus -84080-07-28 14:52 J -28988588.14 -28988587.88 -28988587.62 0.0143 0.0025
 Uranus -84079-08-02 12:56 J -28988218.22 -28988217.96 -28988217.70 0.0143 0.0002
 Uranus -84078-08-08 00:28 J -28987847.74 -28987847.48 -28987847.21 0.0142 0.0009
 Uranus -84077-08-11 20:23 J -28987477.91 -28987477.65 -28987477.38 0.0141 0.0019
 Uranus -84076-08-17 05:44 J -28987107.51 -28987107.26 -28987107.02 0.0141 0.0042
 Uranus -84075-08-22 00:13 J -28986737.75 -28986737.49 -28986737.23 0.0140 0.0040
 Uranus -84074-08-27 05:16 J -28986367.49 -28986367.28 -28986367.03 0.0140 0.0063
 Uranus -84073-08-30 23:59 J -28985997.72 -28985997.50 -28985997.25 0.0139 0.0067
 Uranus -84072-09-05 01:25 J -28985627.65 -28985627.44 -28985627.22 0.0138 0.0076
 Saturn -84071-06-25 22:32 J -28985333.71 -28985333.56 -28985333.39 0.0278 0.0208

Uranus -84071-09-09 19:54 J -28985257.85 -28985257.67 -28985257.45 0.0138 0.0095
 Saturn -84070-07-09 14:08 J -28984955.14 -28984954.91 -28984954.67 0.0280 0.0099
 Uranus -84070-09-14 17:16 J -28984887.96 -28984887.78 -28984887.58 0.0137 0.0092
 Saturn -84069-07-22 11:30 J -28984576.28 -28984576.02 -28984575.76 0.0282 0.0016
 Uranus -84069-09-18 11:59 J -28984518.13 -28984518.00 -28984517.82 0.0137 0.0112
 Saturn -84068-08-05 16:04 J -28984197.05 -28984196.83 -28984196.59 0.0285 0.0133
 Uranus -84068-09-23 05:01 J -28984148.42 -28984148.29 -28984148.13 0.0136 0.0111
 Saturn -84067-08-20 06:28 J -28983817.35 -28983817.23 -28983817.10 0.0287 0.0247
 Uranus -84067-09-27 23:59 J -28983778.63 -28983778.50 -28983778.37 0.0135 0.0118
 Uranus -84066-10-02 12:13 J -28983409.03 -28983408.99 -28983408.91 0.0135 0.0131
 Uranus -84065-10-06 06:42 J -28983039.32 -28983039.22 -28983039.12 0.0134 0.0125
 Neptune -84062-09-27 08:23 J -28981953.15 -28981953.15 -28981953.14 0.0088 0.0088
 Neptune -84061-09-29 04:32 J -28981585.49 -28981585.31 -28981585.11 0.0088 0.0059
 Neptune -84060-10-01 11:44 J -28981218.24 -28981218.01 -28981217.77 0.0088 0.0041
 Pluto -84059-07-09 22:04 J -28980936.83 -28980936.58 -28980936.31 0.0067 0.0010
 Neptune -84059-10-04 08:52 J -28980850.39 -28980850.13 -28980849.86 0.0088 0.0010
 Neptune -84058-10-06 16:18 J -28980483.07 -28980482.82 -28980482.56 0.0088 0.0009
 Saturn -84058-12-26 08:23 J -28980402.25 -28980402.15 -28980402.03 0.0283 0.0248
 Neptune -84057-10-08 11:44 J -28980115.25 -28980115.01 -28980114.76 0.0088 0.0040
 Saturn -84056-01-07 04:47 J -28980024.50 -28980024.30 -28980024.09 0.0281 0.0152
 Neptune -84056-10-10 21:06 J -28979747.80 -28979747.62 -28979747.40 0.0088 0.0057
 Saturn -84055-01-19 11:30 J -28979647.26 -28979647.02 -28979646.78 0.0278 0.0056
 Jupiter -84055-09-20 08:37 J -28979403.19 -28979403.14 -28979403.07 0.0502 0.0486
 Neptune -84055-10-13 11:30 J -28979380.03 -28979380.02 -28979379.94 0.0088 0.0088
 Saturn -84054-01-31 11:44 J -28979270.24 -28979270.01 -28979269.77 0.0276 0.0044
 Saturn -84053-02-12 12:13 J -28978893.18 -28978892.99 -28978892.80 0.0274 0.0150
 Saturn -84052-02-23 06:42 J -28978516.29 -28978516.22 -28978516.11 0.0272 0.0249
 Uranus -84051-12-02 19:25 J -28977868.74 -28977868.69 -28977868.60 0.0131 0.0126
 Uranus -84049-12-10 01:40 J -28977130.54 -28977130.43 -28977130.30 0.0131 0.0116
 Uranus -84048-12-13 21:06 J -28976761.69 -28976761.62 -28976761.50 0.0131 0.0122

Uranus -84047-12-18 05:44 J -28976392.38 -28976392.26 -28976392.10 0.0132 0.0110
 Mars -84046-06-12 13:11 J -28976216.11 -28976215.95 -28976215.78 0.1590 0.0864
 Uranus -84046-12-22 01:25 J -28976023.57 -28976023.44 -28976023.27 0.0132 0.0104
 Uranus -84045-12-25 09:20 J -28975654.25 -28975654.11 -28975653.93 0.0132 0.0101
 Uranus -84044-12-29 05:16 J -28975285.47 -28975285.28 -28975285.09 0.0132 0.0083
 Jupiter -84043-09-24 18:56 J -28975015.91 -28975015.71 -28975015.50 0.0504 0.0272
 Uranus -84042-01-02 13:11 J -28974916.13 -28974915.95 -28974915.75 0.0132 0.0088
 Saturn -84042-06-20 05:59 J -28974747.35 -28974747.25 -28974747.13 0.0276 0.0247
 Uranus -84041-01-06 09:20 J -28974547.32 -28974547.11 -28974546.89 0.0133 0.0066
 Saturn -84041-07-02 15:06 J -28974369.07 -28974368.87 -28974368.65 0.0279 0.0143
 Uranus -84040-01-09 17:44 J -28974177.97 -28974177.76 -28974177.54 0.0133 0.0071
 Saturn -84040-07-16 13:11 J -28973990.19 -28973989.95 -28973989.70 0.0281 0.0031
 Uranus -84039-01-13 14:23 J -28973809.12 -28973808.90 -28973808.67 0.0133 0.0052
 Saturn -84039-07-30 20:08 J -28973610.89 -28973610.66 -28973610.42 0.0284 0.0087
 Uranus -84038-01-17 23:30 J -28973439.75 -28973439.52 -28973439.27 0.0134 0.0047
 Saturn -84038-08-14 09:06 J -28973231.29 -28973231.12 -28973230.94 0.0286 0.0203
 Uranus -84037-01-21 21:06 J -28973070.85 -28973070.62 -28973070.39 0.0134 0.0036
 Jupiter -84037-03-19 20:23 J -28973012.78 -28973012.65 -28973012.51 0.0525 0.0408
 Uranus -84036-01-25 06:28 J -28972701.48 -28972701.23 -28972700.98 0.0135 0.0021
 Uranus -84035-01-29 04:18 J -28972332.55 -28972332.32 -28972332.07 0.0135 0.0022
 Uranus -84034-02-02 14:52 J -28971963.13 -28971962.88 -28971962.63 0.0136 0.0003
 Uranus -84033-02-06 13:54 J -28971594.16 -28971593.92 -28971593.68 0.0136 0.0001
 Uranus -84032-02-10 01:40 J -28971224.68 -28971224.43 -28971224.18 0.0137 0.0022
 Uranus -84031-02-14 01:54 J -28970855.65 -28970855.42 -28970855.18 0.0138 0.0026
 Jupiter -84031-09-29 22:32 J -28970627.80 -28970627.56 -28970627.33 0.0506 0.0025
 Uranus -84030-02-18 15:20 J -28970486.09 -28970485.86 -28970485.61 0.0138 0.0039
 Uranus -84029-02-22 17:16 J -28970116.99 -28970116.78 -28970116.54 0.0139 0.0054
 Uranus -84028-02-26 08:52 J -28969747.35 -28969747.13 -28969746.89 0.0139 0.0054
 Saturn -84027-01-01 11:16 J -28969438.19 -28969438.03 -28969437.86 0.0281 0.0200
 Uranus -84027-03-02 12:42 J -28969378.17 -28969377.97 -28969377.77 0.0140 0.0078

Saturn	-84026-01-14 05:30 J	-28969060.48	-28969060.27	-28969060.05	0.0279	0.0103
Uranus	-84026-03-07 06:13 J	-28969008.43	-28969008.24	-28969008.02	0.0141	0.0076
Saturn	-84025-01-26 14:37 J	-28968683.13	-28968682.89	-28968682.65	0.0277	0.0005
Uranus	-84025-03-10 11:30 J	-28968639.18	-28968639.02	-28968638.83	0.0141	0.0099
Jupiter	-84025-03-24 19:40 J	-28968624.91	-28968624.68	-28968624.46	0.0523	0.0113
Saturn	-84024-02-06 10:04 J	-28968306.30	-28968306.08	-28968305.84	0.0274	0.0104
Uranus	-84024-03-15 07:25 J	-28968269.34	-28968269.19	-28968269.00	0.0142	0.0102
Saturn	-84023-02-18 00:42 J	-28967929.62	-28967929.47	-28967929.31	0.0272	0.0208
Uranus	-84023-03-19 15:20 J	-28967900.02	-28967899.86	-28967899.71	0.0142	0.0110
Uranus	-84022-03-24 13:25 J	-28967530.04	-28967529.94	-28967529.82	0.0143	0.0126
Uranus	-84021-03-27 23:01 J	-28967160.65	-28967160.54	-28967160.39	0.0144	0.0122
Uranus	-84019-04-06 12:13 J	-28966421.05	-28966420.99	-28966420.92	0.0145	0.0139
Jupiter	-84019-10-04 16:18 J	-28966240.02	-28966239.82	-28966239.61	0.0508	0.0283
Mars	-84014-06-20 16:47 J	-28964519.91	-28964519.80	-28964519.69	0.1599	0.1282
Jupiter	-84013-03-29 03:06 J	-28964237.58	-28964237.37	-28964237.16	0.0520	0.0199
Saturn	-84012-06-27 01:11 J	-28963782.62	-28963782.45	-28963782.25	0.0278	0.0192
Saturn	-84011-07-10 12:42 J	-28963404.21	-28963403.97	-28963403.72	0.0280	0.0084
Saturn	-84010-07-24 10:18 J	-28963025.32	-28963025.07	-28963024.81	0.0283	0.0032
Saturn	-84009-08-06 19:11 J	-28962645.90	-28962645.70	-28962645.48	0.0285	0.0148
Saturn	-84008-08-21 14:08 J	-28962266.01	-28962265.91	-28962265.81	0.0287	0.0260
Mars	-84008-12-19 16:32 J	-28962145.97	-28962145.81	-28962145.65	0.1948	0.1037
Uranus	-84007-06-03 18:42 J	-28961979.74	-28961979.72	-28961979.67	0.0148	0.0146
Uranus	-84006-06-08 18:13 J	-28961609.85	-28961609.74	-28961609.58	0.0147	0.0126
Uranus	-84005-06-13 08:37 J	-28961239.23	-28961239.14	-28961239.00	0.0147	0.0131
Uranus	-84004-06-18 09:35 J	-28960869.25	-28960869.10	-28960868.90	0.0147	0.0108
Uranus	-84003-06-23 23:16 J	-28960498.69	-28960498.53	-28960498.33	0.0147	0.0101
Uranus	-84002-06-29 02:52 J	-28960128.57	-28960128.38	-28960128.17	0.0146	0.0096
Jupiter	-84001-04-02 20:52 J	-28959849.72	-28959849.63	-28959849.53	0.0519	0.0463
Uranus	-84001-07-03 14:08 J	-28959758.13	-28959757.91	-28959757.69	0.0146	0.0071

84TH MILLENNIUM BCE

This is a list of transits of Moon in the 84th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-84000-07-08 20:23 J	-28959387.87	-28959387.65	-28959387.40	0.0145	0.0071		
Uranus	-83999-07-14 03:20 J	-28959017.59	-28959017.36	-28959017.12	0.0145	0.0050		
Saturn	-83999-12-27 13:54 J	-28958851.04	-28958850.92	-28958850.76	0.0283	0.0233		
Uranus	-83998-07-19 12:56 J	-28958647.22	-28958646.96	-28958646.69	0.0144	0.0035		
Saturn	-83997-01-09 05:16 J	-28958473.49	-28958473.28	-28958473.06	0.0281	0.0139		
Uranus	-83997-07-23 15:06 J	-28958277.10	-28958276.87	-28958276.61	0.0144	0.0032		
Saturn	-83996-01-20 12:42 J	-28958096.21	-28958095.97	-28958095.73	0.0278	0.0042		
Uranus	-83996-07-29 02:37 J	-28957906.66	-28957906.39	-28957906.13	0.0143	0.0005		
Saturn	-83995-02-01 18:28 J	-28957718.95	-28957718.73	-28957718.50	0.0276	0.0061		
Uranus	-83995-08-03 00:42 J	-28957536.72	-28957536.47	-28957536.21	0.0143	0.0004		
Saturn	-83994-02-13 18:42 J	-28957341.90	-28957341.72	-28957341.53	0.0273	0.0166		
Uranus	-83994-08-08 11:59 J	-28957166.26	-28957166.00	-28957165.74	0.0142	0.0015		
Saturn	-83993-02-25 07:11 J	-28956965.25	-28956965.20	-28956965.12	0.0271	0.0262		
Uranus	-83993-08-12 07:40 J	-28956796.43	-28956796.18	-28956795.92	0.0142	0.0033		
Uranus	-83992-08-17 17:01 J	-28956426.03	-28956425.79	-28956425.52	0.0141	0.0035		
Uranus	-83991-08-22 11:30 J	-28956056.25	-28956056.02	-28956055.77	0.0140	0.0060		
Uranus	-83990-08-27 18:13 J	-28955685.97	-28955685.74	-28955685.50	0.0140	0.0059		
Uranus	-83989-08-31 11:44 J	-28955316.22	-28955316.01	-28955315.77	0.0139	0.0076		
Uranus	-83988-09-05 14:08 J	-28954946.09	-28954945.91	-28954945.70	0.0138	0.0089		
Uranus	-83987-09-10 07:40 J	-28954576.37	-28954576.18	-28954575.96	0.0138	0.0089		

Uranus -83986-09-15 05:44 J -28954206.39 -28954206.26 -28954206.10 0.0137 0.0111
 Uranus -83985-09-18 23:16 J -28953836.68 -28953836.53 -28953836.34 0.0137 0.0106
 Uranus -83984-09-23 16:47 J -28953466.88 -28953466.80 -28953466.66 0.0136 0.0122
 Saturn -83983-06-21 07:40 J -28953196.30 -28953196.18 -28953196.04 0.0276 0.0233
 Uranus -83983-09-28 10:32 J -28953097.14 -28953097.06 -28953096.95 0.0135 0.0126
 Saturn -83982-07-04 21:49 J -28952817.80 -28952817.59 -28952817.38 0.0279 0.0128
 Uranus -83982-10-03 00:56 J -28952727.54 -28952727.46 -28952727.38 0.0135 0.0127
 Saturn -83981-07-17 20:23 J -28952438.90 -28952438.65 -28952438.40 0.0282 0.0015
 Saturn -83980-08-01 00:28 J -28952059.71 -28952059.48 -28952059.23 0.0284 0.0101
 Neptune -83979-03-24 19:25 J -28951823.79 -28951823.69 -28951823.55 0.0089 0.0078
 Saturn -83979-08-15 09:49 J -28951680.26 -28951680.09 -28951679.91 0.0287 0.0214
 Neptune -83978-03-27 00:28 J -28951456.63 -28951456.48 -28951456.29 0.0089 0.0063
 Neptune -83977-03-28 11:59 J -28951089.24 -28951089.00 -28951088.76 0.0089 0.0031
 Neptune -83976-03-30 22:18 J -28950721.81 -28950721.57 -28950721.33 0.0089 0.0016
 Neptune -83975-04-02 04:32 J -28950354.56 -28950354.31 -28950354.05 0.0089 0.0015
 Neptune -83974-04-04 18:56 J -28949986.94 -28949986.71 -28949986.47 0.0089 0.0030
 Neptune -83973-04-05 21:20 J -28949619.76 -28949619.61 -28949619.40 0.0089 0.0063
 Pluto -83972-01-13 22:32 J -28949336.79 -28949336.56 -28949336.31 0.0078 0.0022
 Neptune -83972-04-08 13:54 J -28949252.02 -28949251.92 -28949251.78 0.0089 0.0078
 Saturn -83970-12-21 16:47 J -28948264.84 -28948264.80 -28948264.74 0.0284 0.0276
 Saturn -83968-01-02 20:08 J -28947886.83 -28947886.66 -28947886.48 0.0281 0.0186
 Saturn -83967-01-15 12:42 J -28947509.19 -28947508.97 -28947508.74 0.0279 0.0090
 Mars -83967-06-14 16:04 J -28947359.01 -28947358.83 -28947358.65 0.1592 0.0484
 Saturn -83966-01-27 15:49 J -28947132.09 -28947131.84 -28947131.59 0.0276 0.0012
 Uranus -83966-12-07 04:04 J -28946818.41 -28946818.33 -28946818.22 0.0131 0.0120
 Saturn -83965-02-08 10:18 J -28946755.28 -28946755.07 -28946754.85 0.0274 0.0120
 Uranus -83965-12-10 11:59 J -28946449.03 -28946449.00 -28946448.91 0.0131 0.0128
 Saturn -83964-02-19 05:59 J -28946378.37 -28946378.25 -28946378.11 0.0272 0.0224
 Uranus -83964-12-14 08:37 J -28946080.25 -28946080.14 -28946079.99 0.0131 0.0112
 Uranus -83963-12-18 16:18 J -28945710.93 -28945710.82 -28945710.66 0.0131 0.0112

Uranus	-83962-12-22 12:42 J	-28945342.10	-28945341.97	-28945341.80	0.0132	0.0104
Uranus	-83961-12-25 20:37 J	-28944972.81	-28944972.64	-28944972.45	0.0132	0.0091
Jupiter	-83960-09-24 08:23 J	-28944700.34	-28944700.15	-28944699.96	0.0504	0.0295
Uranus	-83960-12-29 16:47 J	-28944603.95	-28944603.80	-28944603.61	0.0132	0.0092
Uranus	-83958-01-03 00:28 J	-28944234.68	-28944234.48	-28944234.25	0.0132	0.0072
Uranus	-83957-01-06 21:20 J	-28943865.80	-28943865.61	-28943865.40	0.0133	0.0077
Uranus	-83956-01-10 05:01 J	-28943496.52	-28943496.29	-28943496.06	0.0133	0.0055
Uranus	-83955-01-14 01:54 J	-28943127.63	-28943127.42	-28943127.19	0.0133	0.0057
Uranus	-83954-01-18 10:04 J	-28942758.31	-28942758.08	-28942757.83	0.0134	0.0040
Jupiter	-83954-03-20 10:32 J	-28942697.18	-28942697.06	-28942696.93	0.0525	0.0434
Saturn	-83954-06-15 19:40 J	-28942609.70	-28942609.68	-28942609.65	0.0275	0.0274
Uranus	-83953-01-22 07:54 J	-28942389.40	-28942389.17	-28942388.93	0.0134	0.0030
Saturn	-83953-06-27 21:20 J	-28942231.81	-28942231.61	-28942231.41	0.0278	0.0176
Uranus	-83952-01-25 16:32 J	-28942020.05	-28942019.81	-28942019.55	0.0135	0.0025
Saturn	-83952-07-11 10:04 J	-28941853.32	-28941853.08	-28941852.83	0.0280	0.0070
Uranus	-83951-01-29 15:35 J	-28941651.09	-28941650.85	-28941650.61	0.0135	0.0005
Saturn	-83951-07-25 12:28 J	-28941474.22	-28941473.98	-28941473.73	0.0283	0.0044
Uranus	-83950-02-03 01:11 J	-28941281.70	-28941281.45	-28941281.19	0.0136	0.0007
Saturn	-83950-08-09 00:56 J	-28941094.66	-28941094.46	-28941094.26	0.0285	0.0160
Uranus	-83949-02-07 01:11 J	-28940912.69	-28940912.45	-28940912.21	0.0136	0.0018
Saturn	-83949-08-22 20:08 J	-28940714.73	-28940714.66	-28940714.57	0.0287	0.0271
Uranus	-83948-02-10 11:59 J	-28940543.25	-28940543.00	-28940542.75	0.0137	0.0017
Jupiter	-83948-09-29 01:54 J	-28940312.67	-28940312.42	-28940312.17	0.0505	0.0037
Uranus	-83947-02-14 12:42 J	-28940174.19	-28940173.97	-28940173.72	0.0138	0.0038
Uranus	-83946-02-19 01:25 J	-28939804.67	-28939804.44	-28939804.19	0.0138	0.0045
Uranus	-83945-02-23 03:49 J	-28939435.56	-28939435.34	-28939435.11	0.0139	0.0052
Uranus	-83944-02-26 18:28 J	-28939065.93	-28939065.73	-28939065.51	0.0139	0.0072
Uranus	-83943-03-02 22:32 J	-28938696.76	-28938696.56	-28938696.34	0.0140	0.0070
Uranus	-83942-03-07 16:04 J	-28938327.01	-28938326.83	-28938326.64	0.0141	0.0095
Jupiter	-83942-03-24 14:37 J	-28938310.11	-28938309.89	-28938309.67	0.0523	0.0149

Uranus	-83941-03-10 21:49 J	-28937957.76	-28937957.59	-28937957.40	0.0141	0.0093
Uranus	-83940-03-15 17:30 J	-28937587.91	-28937587.77	-28937587.60	0.0142	0.0110
Saturn	-83940-12-28 13:40 J	-28937300.09	-28937299.93	-28937299.78	0.0283	0.0220
Uranus	-83939-03-20 01:11 J	-28937218.58	-28937218.45	-28937218.31	0.0142	0.0119
Saturn	-83938-01-10 05:16 J	-28936922.49	-28936922.28	-28936922.06	0.0281	0.0128
Uranus	-83938-03-24 23:16 J	-28936848.65	-28936848.53	-28936848.39	0.0143	0.0120
Saturn	-83937-01-22 17:44 J	-28936544.99	-28936544.76	-28936544.53	0.0278	0.0028
Uranus	-83937-03-28 08:08 J	-28936479.17	-28936479.16	-28936479.09	0.0144	0.0142
Saturn	-83936-02-02 23:59 J	-28936167.72	-28936167.50	-28936167.27	0.0276	0.0076
Uranus	-83936-04-02 09:06 J	-28936109.20	-28936109.12	-28936109.03	0.0144	0.0135
Jupiter	-83936-10-03 23:44 J	-28935924.70	-28935924.51	-28935924.32	0.0507	0.0273
Saturn	-83935-02-14 17:59 J	-28935790.93	-28935790.75	-28935790.57	0.0273	0.0182
Mars	-83935-06-22 17:44 J	-28935662.82	-28935662.76	-28935662.71	0.1601	0.1523
Jupiter	-83930-03-29 13:40 J	-28933922.14	-28933921.93	-28933921.72	0.0522	0.0169
Mars	-83929-12-23 08:52 J	-28933287.33	-28933287.13	-28933286.94	0.1945	0.0764
Uranus	-83924-05-29 14:23 J	-28931668.91	-28931668.90	-28931668.87	0.0148	0.0147
Saturn	-83924-06-22 11:59 J	-28931645.13	-28931645.00	-28931644.84	0.0276	0.0217
Uranus	-83923-06-04 02:37 J	-28931298.46	-28931298.39	-28931298.27	0.0148	0.0137
Saturn	-83923-07-06 01:11 J	-28931266.67	-28931266.45	-28931266.22	0.0279	0.0112
Uranus	-83922-06-09 03:20 J	-28930928.43	-28930928.36	-28930928.26	0.0148	0.0139
Saturn	-83922-07-19 19:40 J	-28930887.94	-28930887.68	-28930887.42	0.0282	0.0005
Uranus	-83921-06-13 18:13 J	-28930557.89	-28930557.74	-28930557.57	0.0147	0.0114
Saturn	-83921-08-01 21:20 J	-28930508.85	-28930508.61	-28930508.37	0.0284	0.0112
Uranus	-83920-06-18 18:42 J	-28930187.86	-28930187.72	-28930187.54	0.0147	0.0115
Saturn	-83920-08-16 08:08 J	-28930129.32	-28930129.16	-28930129.00	0.0287	0.0225
Uranus	-83919-06-24 09:20 J	-28929817.28	-28929817.11	-28929816.92	0.0147	0.0100
Jupiter	-83918-04-03 01:25 J	-28929534.57	-28929534.44	-28929534.31	0.0519	0.0434
Uranus	-83918-06-29 11:44 J	-28929447.22	-28929447.01	-28929446.79	0.0146	0.0083
Uranus	-83917-07-03 23:30 J	-28929076.71	-28929076.52	-28929076.29	0.0146	0.0083
Uranus	-83916-07-09 05:01 J	-28928706.53	-28928706.29	-28928706.03	0.0146	0.0055

Uranus	-83915-07-14 12:56 J	-28928336.18	-28928335.96	-28928335.71	0.0145	0.0051
Uranus	-83914-07-19 21:35 J	-28927965.86	-28927965.60	-28927965.34	0.0145	0.0036
Uranus	-83913-07-24 01:25 J	-28927595.69	-28927595.44	-28927595.19	0.0144	0.0014
Uranus	-83912-07-29 11:44 J	-28927225.28	-28927225.01	-28927224.74	0.0143	0.0014
Uranus	-83911-08-03 11:16 J	-28926855.28	-28926855.03	-28926854.77	0.0143	0.0013
Saturn	-83911-12-22 23:16 J	-28926713.60	-28926713.53	-28926713.44	0.0284	0.0264
Uranus	-83910-08-08 22:18 J	-28926484.83	-28926484.57	-28926484.30	0.0142	0.0020
Saturn	-83909-01-05 00:56 J	-28926335.64	-28926335.46	-28926335.26	0.0281	0.0173
Uranus	-83909-08-12 18:13 J	-28926114.98	-28926114.74	-28926114.47	0.0142	0.0032
Saturn	-83908-01-16 11:44 J	-28925958.24	-28925958.01	-28925957.76	0.0279	0.0076
Uranus	-83908-08-18 04:04 J	-28925744.57	-28925744.33	-28925744.09	0.0141	0.0054
Saturn	-83907-01-28 13:25 J	-28925581.18	-28925580.94	-28925580.70	0.0276	0.0026
Uranus	-83907-08-22 21:35 J	-28925374.83	-28925374.60	-28925374.34	0.0140	0.0052
Saturn	-83906-02-09 13:40 J	-28925204.13	-28925203.93	-28925203.73	0.0274	0.0135
Uranus	-83906-08-28 04:47 J	-28925004.51	-28925004.30	-28925004.07	0.0140	0.0075
Saturn	-83905-02-21 11:01 J	-28924827.14	-28924827.04	-28924826.92	0.0272	0.0238
Uranus	-83905-08-31 21:35 J	-28924634.80	-28924634.60	-28924634.36	0.0139	0.0079
Uranus	-83904-09-06 01:25 J	-28924264.63	-28924264.44	-28924264.24	0.0138	0.0089
Uranus	-83903-09-10 17:59 J	-28923894.90	-28923894.75	-28923894.56	0.0138	0.0107
Uranus	-83902-09-15 17:59 J	-28923524.90	-28923524.75	-28923524.57	0.0137	0.0103
Uranus	-83901-09-19 10:47 J	-28923155.16	-28923155.05	-28923154.93	0.0137	0.0123
Uranus	-83900-09-24 05:59 J	-28922785.35	-28922785.25	-28922785.13	0.0136	0.0121
Uranus	-83899-09-28 22:04 J	-28922415.64	-28922415.58	-28922415.49	0.0136	0.0130
Neptune	-83897-09-28 01:25 J	-28921685.57	-28921685.44	-28921685.24	0.0088	0.0070
Neptune	-83896-09-30 22:32 J	-28921317.75	-28921317.56	-28921317.32	0.0088	0.0052
Saturn	-83895-06-16 13:25 J	-28921059.02	-28921058.94	-28921058.83	0.0275	0.0256
Neptune	-83895-10-03 06:56 J	-28920950.45	-28920950.21	-28920949.95	0.0088	0.0022
Saturn	-83894-06-29 17:30 J	-28920680.97	-28920680.77	-28920680.56	0.0278	0.0160
Neptune	-83894-10-06 01:11 J	-28920582.72	-28920582.45	-28920582.17	0.0088	0.0004
Saturn	-83893-07-12 11:59 J	-28920302.24	-28920302.00	-28920301.76	0.0280	0.0056

Neptune -83893-10-07 12:56 J -28920215.19 -28920214.96 -28920214.71 0.0088 0.0026
 Saturn -83892-07-26 16:32 J -28919923.04 -28919922.81 -28919922.56 0.0283 0.0056
 Neptune -83892-10-10 02:52 J -28919847.61 -28919847.38 -28919847.14 0.0088 0.0045
 Saturn -83891-08-10 03:35 J -28919543.54 -28919543.35 -28919543.14 0.0285 0.0172
 Neptune -83891-10-12 18:56 J -28919479.83 -28919479.71 -28919479.56 0.0088 0.0075
 Saturn -83890-08-24 19:40 J -28919163.74 -28919163.68 -28919163.63 0.0288 0.0280
 Mars -83888-06-16 11:01 J -28918502.21 -28918502.04 -28918501.87 0.1593 0.0393
 Uranus -83883-12-03 18:13 J -28916505.80 -28916505.74 -28916505.65 0.0131 0.0125
 Uranus -83881-12-10 23:44 J -28915767.62 -28915767.51 -28915767.37 0.0131 0.0114
 Saturn -83881-12-29 11:16 J -28915749.19 -28915749.03 -28915748.86 0.0283 0.0208
 Uranus -83880-12-14 21:06 J -28915398.71 -28915398.62 -28915398.51 0.0131 0.0119
 Saturn -83879-01-11 08:37 J -28915371.35 -28915371.14 -28915370.92 0.0281 0.0114
 Uranus -83879-12-19 04:18 J -28915029.46 -28915029.32 -28915029.16 0.0131 0.0106
 Saturn -83878-01-23 22:32 J -28914993.80 -28914993.56 -28914993.33 0.0278 0.0014
 Uranus -83878-12-23 00:56 J -28914660.60 -28914660.46 -28914660.28 0.0132 0.0101
 Saturn -83877-02-04 23:30 J -28914616.75 -28914616.52 -28914616.29 0.0276 0.0091
 Jupiter -83877-09-23 13:40 J -28914385.12 -28914384.93 -28914384.73 0.0503 0.0308
 Uranus -83877-12-26 07:11 J -28914291.35 -28914291.20 -28914291.00 0.0132 0.0096
 Saturn -83876-02-15 13:40 J -28914240.09 -28914239.93 -28914239.76 0.0273 0.0200
 Uranus -83876-12-30 04:32 J -28913922.49 -28913922.31 -28913922.10 0.0132 0.0079
 Uranus -83874-01-03 11:16 J -28913553.22 -28913553.03 -28913552.82 0.0132 0.0082
 Uranus -83873-01-07 08:37 J -28913184.34 -28913184.14 -28913183.91 0.0133 0.0061
 Uranus -83872-01-10 15:35 J -28912815.06 -28912814.85 -28912814.61 0.0133 0.0064
 Uranus -83871-01-14 14:08 J -28912446.13 -28912445.91 -28912445.68 0.0133 0.0044
 Jupiter -83871-03-19 05:44 J -28912382.35 -28912382.26 -28912382.16 0.0526 0.0475
 Uranus -83870-01-18 21:20 J -28912076.85 -28912076.61 -28912076.36 0.0134 0.0039
 Uranus -83869-01-22 19:54 J -28911707.90 -28911707.67 -28911707.43 0.0134 0.0028
 Uranus -83868-01-26 03:35 J -28911338.60 -28911338.35 -28911338.10 0.0135 0.0012
 Uranus -83867-01-30 02:52 J -28910969.62 -28910969.38 -28910969.14 0.0135 0.0011
 Uranus -83866-02-03 11:16 J -28910600.28 -28910600.03 -28910599.77 0.0136 0.0012

Uranus	-83865-02-07 11:44 J	-28910231.25	-28910231.01	-28910230.77	0.0136	0.0009
Saturn	-83865-06-23 14:08 J	-28910094.08	-28910093.91	-28910093.73	0.0276	0.0199
Jupiter	-83865-09-28 09:06 J	-28909997.35	-28909997.12	-28909996.89	0.0504	0.0054
Uranus	-83864-02-10 21:35 J	-28909861.84	-28909861.60	-28909861.35	0.0137	0.0033
Saturn	-83864-07-06 22:04 J	-28909715.82	-28909715.58	-28909715.33	0.0279	0.0099
Uranus	-83863-02-14 23:30 J	-28909492.75	-28909492.52	-28909492.28	0.0137	0.0036
Saturn	-83863-07-20 14:23 J	-28909337.16	-28909336.90	-28909336.64	0.0282	0.0009
Uranus	-83862-02-19 11:16 J	-28909123.25	-28909123.03	-28909122.78	0.0138	0.0050
Saturn	-83862-08-03 18:42 J	-28908957.94	-28908957.72	-28908957.49	0.0284	0.0123
Uranus	-83861-02-23 14:37 J	-28908754.09	-28908753.89	-28908753.66	0.0139	0.0064
Saturn	-83861-08-17 09:49 J	-28908578.21	-28908578.09	-28908577.94	0.0287	0.0236
Uranus	-83860-02-27 05:01 J	-28908384.51	-28908384.29	-28908384.06	0.0139	0.0065
Uranus	-83859-03-03 09:35 J	-28908015.27	-28908015.10	-28908014.90	0.0140	0.0090
Jupiter	-83859-03-24 07:25 J	-28907994.40	-28907994.19	-28907993.97	0.0524	0.0162
Uranus	-83858-03-08 01:54 J	-28907645.60	-28907645.42	-28907645.20	0.0141	0.0087
Uranus	-83857-03-11 07:40 J	-28907276.31	-28907276.18	-28907276.00	0.0141	0.0111
Uranus	-83856-03-16 03:06 J	-28906906.52	-28906906.37	-28906906.21	0.0142	0.0111
Uranus	-83855-03-20 10:18 J	-28906537.17	-28906537.07	-28906536.92	0.0142	0.0122
Uranus	-83854-03-25 08:23 J	-28906167.22	-28906167.15	-28906167.07	0.0143	0.0136
Uranus	-83853-03-28 17:44 J	-28905797.84	-28905797.76	-28905797.65	0.0144	0.0132
Jupiter	-83853-10-03 08:52 J	-28905609.33	-28905609.13	-28905608.91	0.0507	0.0257
Saturn	-83852-12-24 04:04 J	-28905162.44	-28905162.33	-28905162.21	0.0284	0.0250
Saturn	-83850-01-06 00:13 J	-28904784.69	-28904784.49	-28904784.28	0.0281	0.0158
Saturn	-83849-01-18 08:52 J	-28904407.36	-28904407.13	-28904406.89	0.0279	0.0063
Saturn	-83848-01-29 15:20 J	-28904030.09	-28904029.86	-28904029.63	0.0276	0.0043
Saturn	-83847-02-10 18:13 J	-28903652.93	-28903652.74	-28903652.54	0.0274	0.0151
Jupiter	-83847-03-28 20:08 J	-28903606.88	-28903606.66	-28903606.43	0.0522	0.0154
Saturn	-83846-02-22 10:18 J	-28903276.15	-28903276.07	-28903275.97	0.0272	0.0250
Mars	-83841-06-10 10:04 J	-28901341.19	-28901341.08	-28901340.96	0.1587	0.1193
Uranus	-83839-06-04 12:42 J	-28900617.03	-28900616.97	-28900616.91	0.0148	0.0143

Uranus	-83838-06-09 13:25 J	-28900247.08	-28900246.94	-28900246.80	0.0148	0.0123
Uranus	-83837-06-14 03:35 J	-28899876.47	-28899876.35	-28899876.22	0.0147	0.0127
Saturn	-83836-06-17 09:49 J	-28899508.20	-28899508.09	-28899507.96	0.0275	0.0240
Uranus	-83836-06-19 03:49 J	-28899506.51	-28899506.34	-28899506.14	0.0147	0.0103
Jupiter	-83835-04-02 14:08 J	-28899219.04	-28899218.91	-28899218.77	0.0519	0.0408
Uranus	-83835-06-24 18:56 J	-28899135.89	-28899135.71	-28899135.51	0.0147	0.0097
Saturn	-83835-06-30 18:56 J	-28899129.92	-28899129.71	-28899129.51	0.0278	0.0146
Uranus	-83834-06-29 20:37 J	-28898765.83	-28898765.64	-28898765.41	0.0146	0.0090
Saturn	-83834-07-14 14:23 J	-28898751.14	-28898750.90	-28898750.65	0.0280	0.0044
Uranus	-83833-07-04 10:32 J	-28898395.28	-28898395.06	-28898394.82	0.0146	0.0064
Saturn	-83833-07-27 16:18 J	-28898372.07	-28898371.82	-28898371.57	0.0283	0.0067
Uranus	-83832-07-09 14:52 J	-28898025.11	-28898024.88	-28898024.63	0.0146	0.0064
Saturn	-83832-08-10 23:16 J	-28897992.72	-28897992.53	-28897992.31	0.0285	0.0180
Uranus	-83831-07-15 00:42 J	-28897654.70	-28897654.47	-28897654.22	0.0145	0.0040
Saturn	-83831-08-25 13:40 J	-28897612.94	-28897612.93	-28897612.89	0.0288	0.0286
Uranus	-83830-07-20 07:40 J	-28897284.44	-28897284.18	-28897283.90	0.0145	0.0027
Uranus	-83829-07-24 12:42 J	-28896914.21	-28896913.97	-28896913.71	0.0144	0.0021
Uranus	-83828-07-29 22:04 J	-28896543.85	-28896543.58	-28896543.31	0.0144	0.0006
Uranus	-83827-08-03 22:04 J	-28896173.83	-28896173.58	-28896173.32	0.0143	0.0008
Uranus	-83826-08-09 08:08 J	-28895803.41	-28895803.16	-28895802.89	0.0142	0.0029
Uranus	-83825-08-13 05:01 J	-28895433.54	-28895433.29	-28895433.04	0.0142	0.0044
Uranus	-83824-08-18 14:37 J	-28895063.14	-28895062.89	-28895062.64	0.0141	0.0047
Uranus	-83823-08-23 08:37 J	-28894693.35	-28894693.14	-28894692.90	0.0140	0.0072
Uranus	-83822-08-28 16:18 J	-28894323.02	-28894322.82	-28894322.58	0.0140	0.0071
Saturn	-83822-12-31 12:56 J	-28894198.12	-28894197.96	-28894197.79	0.0284	0.0197
Uranus	-83821-09-01 08:52 J	-28893953.31	-28893953.13	-28893952.90	0.0139	0.0089
Saturn	-83820-01-12 11:44 J	-28893820.23	-28893820.01	-28893819.79	0.0281	0.0101
Uranus	-83820-09-06 13:25 J	-28893583.10	-28893582.94	-28893582.74	0.0138	0.0101
Saturn	-83819-01-24 20:37 J	-28893442.88	-28893442.64	-28893442.39	0.0278	0.0002
Uranus	-83819-09-11 05:16 J	-28893213.44	-28893213.28	-28893213.08	0.0138	0.0102

Saturn -83818-02-05 17:59 J -28893065.97 -28893065.75 -28893065.52 0.0276 0.0108
 Uranus -83818-09-16 05:44 J -28892843.35 -28892843.26 -28892843.13 0.0137 0.0124
 Saturn -83817-02-17 12:56 J -28892689.09 -28892688.96 -28892688.80 0.0273 0.0214
 Uranus -83817-09-19 21:20 J -28892473.73 -28892473.61 -28892473.46 0.0137 0.0117
 Uranus -83816-09-24 17:59 J -28892103.79 -28892103.75 -28892103.69 0.0136 0.0133
 Neptune -83814-03-26 11:30 J -28891556.16 -28891556.02 -28891555.83 0.0089 0.0069
 Neptune -83813-03-27 22:18 J -28891188.76 -28891188.57 -28891188.35 0.0089 0.0049
 Pluto -83813-07-11 04:47 J -28891083.54 -28891083.30 -28891083.02 0.0067 0.0023
 Neptune -83812-03-30 03:35 J -28890821.59 -28890821.35 -28890821.09 0.0089 0.0023
 Neptune -83811-04-01 18:56 J -28890453.95 -28890453.71 -28890453.46 0.0089 0.0003
 Neptune -83810-04-03 21:35 J -28890086.83 -28890086.60 -28890086.35 0.0089 0.0025
 Neptune -83809-04-05 13:54 J -28889719.13 -28889718.92 -28889718.69 0.0089 0.0045
 Mars -83809-06-18 07:25 J -28889645.36 -28889645.19 -28889645.01 0.1594 0.0621
 Neptune -83808-04-07 17:16 J -28889351.90 -28889351.78 -28889351.61 0.0089 0.0072
 Saturn -83806-06-25 10:04 J -28888543.27 -28888543.08 -28888542.89 0.0276 0.0184
 Saturn -83805-07-07 17:16 J -28888165.02 -28888164.78 -28888164.53 0.0279 0.0084
 Saturn -83804-07-21 13:54 J -28887786.16 -28887785.92 -28887785.67 0.0282 0.0022
 Saturn -83803-08-04 22:32 J -28887406.78 -28887406.56 -28887406.35 0.0284 0.0133
 Saturn -83802-08-19 14:52 J -28887027.01 -28887026.88 -28887026.75 0.0287 0.0244
 Uranus -83798-12-08 05:16 J -28885455.37 -28885455.28 -28885455.17 0.0131 0.0119
 Uranus -83797-12-11 11:44 J -28885086.07 -28885086.01 -28885085.92 0.0131 0.0126
 Uranus -83796-12-15 09:49 J -28884717.21 -28884717.09 -28884716.94 0.0131 0.0109
 Uranus -83795-12-19 16:18 J -28884347.95 -28884347.82 -28884347.66 0.0131 0.0109
 Jupiter -83794-09-23 21:35 J -28884069.77 -28884069.60 -28884069.43 0.0502 0.0334
 Uranus -83794-12-23 14:23 J -28883979.05 -28883978.90 -28883978.73 0.0132 0.0099
 Saturn -83793-12-25 01:25 J -28883611.56 -28883611.44 -28883611.30 0.0284 0.0240
 Uranus -83793-12-26 20:23 J -28883609.83 -28883609.65 -28883609.44 0.0132 0.0087
 Uranus -83792-12-30 18:56 J -28883240.89 -28883240.71 -28883240.52 0.0132 0.0086
 Saturn -83791-01-06 20:08 J -28883233.86 -28883233.66 -28883233.44 0.0281 0.0147
 Uranus -83790-01-04 00:42 J -28882871.68 -28882871.47 -28882871.24 0.0132 0.0066

Saturn -83790-01-19 10:32 J -28882856.29 -28882856.06 -28882855.83 0.0279 0.0047
 Uranus -83789-01-07 23:01 J -28882502.73 -28882502.54 -28882502.32 0.0133 0.0071
 Saturn -83789-01-31 19:54 J -28882478.89 -28882478.67 -28882478.44 0.0276 0.0060
 Uranus -83788-01-11 04:47 J -28882133.53 -28882133.30 -28882133.05 0.0133 0.0048
 Saturn -83788-02-11 18:28 J -28882101.91 -28882101.73 -28882101.53 0.0274 0.0165
 Jupiter -83788-03-19 00:56 J -28882066.54 -28882066.46 -28882066.38 0.0527 0.0487
 Uranus -83787-01-15 03:35 J -28881764.57 -28881764.35 -28881764.12 0.0133 0.0049
 Saturn -83787-02-23 05:30 J -28881725.32 -28881725.27 -28881725.20 0.0272 0.0263
 Uranus -83786-01-19 09:35 J -28881395.34 -28881395.10 -28881394.84 0.0134 0.0031
 Uranus -83785-01-23 09:06 J -28881026.35 -28881026.12 -28881025.88 0.0134 0.0022
 Uranus -83784-01-26 16:04 J -28880657.09 -28880656.83 -28880656.58 0.0135 0.0015
 Uranus -83783-01-30 16:32 J -28880288.04 -28880287.81 -28880287.56 0.0135 0.0005
 Uranus -83782-02-04 00:28 J -28879918.73 -28879918.48 -28879918.22 0.0136 0.0004
 Jupiter -83782-09-28 20:23 J -28879681.90 -28879681.65 -28879681.41 0.0504 0.0062
 Uranus -83781-02-08 02:08 J -28879549.64 -28879549.41 -28879549.17 0.0136 0.0028
 Uranus -83780-02-11 11:01 J -28879180.28 -28879180.04 -28879179.78 0.0137 0.0028
 Uranus -83779-02-15 13:40 J -28878811.14 -28878810.93 -28878810.69 0.0137 0.0049
 Uranus -83778-02-20 00:42 J -28878441.69 -28878441.47 -28878441.23 0.0138 0.0055
 Uranus -83777-02-24 04:47 J -28878072.51 -28878072.30 -28878072.08 0.0139 0.0064
 Saturn -83777-06-18 13:11 J -28877957.09 -28877956.95 -28877956.82 0.0275 0.0226
 Uranus -83776-02-27 17:59 J -28877702.95 -28877702.75 -28877702.54 0.0139 0.0082
 Jupiter -83776-03-23 12:56 J -28877679.18 -28877678.96 -28877678.74 0.0524 0.0175
 Saturn -83776-07-01 21:49 J -28877578.80 -28877578.59 -28877578.37 0.0278 0.0131
 Uranus -83775-03-03 23:16 J -28877333.71 -28877333.53 -28877333.32 0.0140 0.0082
 Saturn -83775-07-15 12:56 J -28877200.21 -28877199.96 -28877199.70 0.0280 0.0029
 Uranus -83774-03-08 14:52 J -28876964.02 -28876963.88 -28876963.70 0.0141 0.0107
 Saturn -83774-07-29 10:32 J -28876821.31 -28876821.06 -28876820.81 0.0283 0.0076
 Uranus -83773-03-11 22:04 J -28876594.74 -28876594.58 -28876594.41 0.0141 0.0104
 Saturn -83773-08-11 17:59 J -28876441.94 -28876441.75 -28876441.55 0.0285 0.0187
 Uranus -83772-03-16 16:32 J -28876224.93 -28876224.81 -28876224.67 0.0142 0.0121

Uranus -83771-03-21 00:42 J -28875855.57 -28875855.47 -28875855.36 0.0142 0.0129
 Uranus -83770-03-25 21:35 J -28875485.68 -28875485.60 -28875485.48 0.0143 0.0131
 Jupiter -83770-10-03 12:56 J -28875294.16 -28875293.96 -28875293.75 0.0506 0.0251
 Uranus -83768-04-03 07:25 J -28874746.19 -28874746.19 -28874746.17 0.0144 0.0144
 Jupiter -83764-03-28 02:37 J -28873291.60 -28873291.39 -28873291.17 0.0522 0.0121
 Saturn -83764-12-19 08:37 J -28873025.16 -28873025.14 -28873025.09 0.0286 0.0282
 Saturn -83762-01-01 16:18 J -28872646.98 -28872646.82 -28872646.63 0.0284 0.0187
 Mars -83762-06-13 09:49 J -28872484.28 -28872484.09 -28872483.90 0.1588 0.0472
 Saturn -83761-01-14 10:18 J -28872269.30 -28872269.07 -28872268.83 0.0281 0.0086
 Saturn -83760-01-25 15:06 J -28871892.11 -28871891.87 -28871891.62 0.0278 0.0019
 Saturn -83759-02-06 16:18 J -28871515.02 -28871514.82 -28871514.60 0.0276 0.0126
 Saturn -83758-02-18 16:47 J -28871137.93 -28871137.80 -28871137.68 0.0273 0.0228
 Uranus -83756-05-30 12:42 J -28870305.99 -28870305.97 -28870305.91 0.0148 0.0146
 Uranus -83755-06-04 23:44 J -28869935.60 -28869935.51 -28869935.40 0.0148 0.0135
 Uranus -83754-06-10 01:11 J -28869565.53 -28869565.45 -28869565.33 0.0148 0.0136
 Uranus -83753-06-14 15:49 J -28869195.01 -28869194.84 -28869194.66 0.0147 0.0110
 Jupiter -83752-04-01 18:56 J -28868903.88 -28868903.71 -28868903.54 0.0520 0.0360
 Uranus -83752-06-19 16:18 J -28868824.97 -28868824.82 -28868824.64 0.0147 0.0112
 Uranus -83751-06-25 07:54 J -28868454.36 -28868454.17 -28868453.97 0.0147 0.0094
 Uranus -83750-06-30 08:52 J -28868084.33 -28868084.13 -28868083.89 0.0146 0.0078
 Uranus -83749-07-04 23:01 J -28867713.74 -28867713.54 -28867713.31 0.0146 0.0075
 Saturn -83748-06-13 07:40 J -28867370.24 -28867370.18 -28867370.09 0.0274 0.0261
 Uranus -83748-07-10 02:08 J -28867343.65 -28867343.41 -28867343.15 0.0146 0.0046
 Saturn -83747-06-26 05:44 J -28866992.45 -28866992.26 -28866992.06 0.0276 0.0170
 Uranus -83747-07-15 12:56 J -28866973.19 -28866972.96 -28866972.71 0.0145 0.0041
 Saturn -83746-07-09 17:59 J -28866613.99 -28866613.75 -28866613.51 0.0279 0.0071
 Uranus -83746-07-20 18:42 J -28866602.98 -28866602.72 -28866602.45 0.0145 0.0026
 Saturn -83745-07-22 18:28 J -28866234.97 -28866234.73 -28866234.48 0.0282 0.0034
 Uranus -83745-07-25 01:11 J -28866232.70 -28866232.45 -28866232.19 0.0144 0.0004
 Uranus -83744-07-30 09:20 J -28865862.38 -28865862.11 -28865861.84 0.0144 0.0003

Saturn -83744-08-06 02:37 J -28865855.60 -28865855.39 -28865855.17 0.0284 0.0143
 Uranus -83743-08-04 10:47 J -28865492.30 -28865492.05 -28865491.80 0.0143 0.0025
 Saturn -83743-08-20 15:49 J -28865475.95 -28865475.84 -28865475.70 0.0287 0.0252
 Uranus -83742-08-09 20:08 J -28865121.91 -28865121.66 -28865121.39 0.0142 0.0032
 Uranus -83741-08-13 17:30 J -28864752.01 -28864751.77 -28864751.52 0.0142 0.0044
 Uranus -83740-08-19 02:23 J -28864381.62 -28864381.40 -28864381.15 0.0141 0.0066
 Uranus -83739-08-23 20:37 J -28864011.86 -28864011.64 -28864011.40 0.0140 0.0064
 Uranus -83738-08-29 04:18 J -28863641.50 -28863641.32 -28863641.10 0.0140 0.0088
 Uranus -83737-09-01 20:37 J -28863271.82 -28863271.64 -28863271.42 0.0139 0.0091
 Uranus -83736-09-07 02:08 J -28862901.57 -28862901.41 -28862901.23 0.0138 0.0102
 Uranus -83735-09-11 17:16 J -28862531.89 -28862531.78 -28862531.62 0.0138 0.0119
 Uranus -83734-09-16 19:11 J -28862161.81 -28862161.70 -28862161.54 0.0137 0.0116
 Saturn -83734-12-26 21:35 J -28862060.73 -28862060.60 -28862060.46 0.0284 0.0232
 Uranus -83733-09-20 10:04 J -28861792.11 -28861792.08 -28861792.03 0.0137 0.0135
 Neptune -83733-09-27 11:30 J -28861785.03 -28861785.02 -28861784.96 0.0088 0.0088
 Saturn -83732-01-07 21:06 J -28861682.83 -28861682.62 -28861682.41 0.0281 0.0134
 Uranus -83732-09-25 07:25 J -28861422.23 -28861422.19 -28861422.11 0.0136 0.0133
 Neptune -83732-09-29 21:35 J -28861417.77 -28861417.60 -28861417.39 0.0088 0.0059
 Saturn -83731-01-20 15:06 J -28861305.10 -28861304.87 -28861304.64 0.0279 0.0031
 Neptune -83731-10-02 14:52 J -28861050.13 -28861049.88 -28861049.64 0.0088 0.0040
 Saturn -83730-02-01 20:52 J -28860927.86 -28860927.63 -28860927.39 0.0276 0.0077
 Neptune -83730-10-05 04:04 J -28860682.58 -28860682.33 -28860682.07 0.0088 0.0010
 Saturn -83729-02-13 14:08 J -28860551.08 -28860550.91 -28860550.71 0.0274 0.0183
 Neptune -83729-10-06 15:49 J -28860315.11 -28860314.84 -28860314.57 0.0088 0.0009
 Neptune -83728-10-09 09:06 J -28859947.33 -28859947.12 -28859946.87 0.0088 0.0039
 Pluto -83727-01-14 07:40 J -28859850.27 -28859850.18 -28859850.07 0.0078 0.0071
 Neptune -83727-10-11 17:16 J -28859579.97 -28859579.78 -28859579.55 0.0088 0.0056
 Pluto -83726-01-16 12:13 J -28859483.04 -28859482.99 -28859482.88 0.0078 0.0074
 Neptune -83726-10-14 13:54 J -28859211.96 -28859211.92 -28859211.84 0.0088 0.0086
 Mars -83724-12-19 06:13 J -28858415.37 -28858415.24 -28858415.10 0.1953 0.1420

Saturn -83718-06-20 17:16 J -28856405.94 -28856405.78 -28856405.62 0.0275 0.0211
 Saturn -83717-07-02 21:35 J -28856027.83 -28856027.60 -28856027.36 0.0278 0.0117
 Saturn -83716-07-16 09:35 J -28855649.36 -28855649.10 -28855648.84 0.0280 0.0018
 Saturn -83715-07-30 08:52 J -28855270.36 -28855270.13 -28855269.88 0.0283 0.0089
 Uranus -83715-12-04 18:42 J -28855142.78 -28855142.72 -28855142.62 0.0131 0.0125
 Saturn -83714-08-13 20:52 J -28854890.80 -28854890.63 -28854890.45 0.0286 0.0199
 Uranus -83713-12-12 00:28 J -28854404.60 -28854404.48 -28854404.33 0.0131 0.0113
 Uranus -83712-12-15 23:44 J -28854035.60 -28854035.51 -28854035.39 0.0131 0.0118
 Jupiter -83711-09-23 09:49 J -28853754.27 -28853754.09 -28853753.91 0.0502 0.0347
 Uranus -83711-12-20 04:47 J -28853666.44 -28853666.30 -28853666.12 0.0131 0.0103
 Uranus -83710-12-24 04:04 J -28853297.49 -28853297.33 -28853297.16 0.0132 0.0097
 Uranus -83709-12-27 08:37 J -28852928.32 -28852928.14 -28852927.94 0.0132 0.0090
 Uranus -83708-12-31 07:40 J -28852559.37 -28852559.18 -28852558.96 0.0132 0.0074
 Uranus -83706-01-04 12:42 J -28852190.18 -28852189.97 -28852189.75 0.0132 0.0075
 Uranus -83705-01-08 12:13 J -28851821.21 -28851820.99 -28851820.76 0.0133 0.0054
 Jupiter -83705-03-17 22:32 J -28851751.59 -28851751.56 -28851751.53 0.0527 0.0520
 Saturn -83705-12-20 12:13 J -28851474.06 -28851473.99 -28851473.92 0.0286 0.0274
 Uranus -83704-01-11 17:16 J -28851452.01 -28851451.78 -28851451.55 0.0133 0.0056
 Saturn -83703-01-02 15:20 J -28851096.04 -28851095.86 -28851095.66 0.0284 0.0176
 Uranus -83703-01-15 17:01 J -28851083.01 -28851082.79 -28851082.54 0.0133 0.0036
 Saturn -83702-01-15 05:30 J -28850718.51 -28850718.27 -28850718.03 0.0281 0.0074
 Uranus -83702-01-19 22:18 J -28850713.81 -28850713.57 -28850713.32 0.0134 0.0031
 Uranus -83701-01-23 22:47 J -28850344.78 -28850344.55 -28850344.31 0.0134 0.0018
 Saturn -83701-01-27 14:08 J -28850341.14 -28850340.91 -28850340.67 0.0278 0.0035
 Uranus -83700-01-27 04:18 J -28849975.57 -28849975.32 -28849975.06 0.0135 0.0005
 Saturn -83700-02-07 20:08 J -28849963.85 -28849963.66 -28849963.46 0.0276 0.0144
 Uranus -83699-01-31 05:44 J -28849606.50 -28849606.26 -28849606.02 0.0135 0.0001
 Saturn -83699-02-19 17:59 J -28849586.85 -28849586.75 -28849586.63 0.0273 0.0241
 Jupiter -83699-09-28 00:42 J -28849366.70 -28849366.47 -28849366.23 0.0504 0.0068
 Uranus -83698-02-04 12:13 J -28849237.24 -28849236.99 -28849236.73 0.0136 0.0021

Uranus	-83697-02-08 14:37 J	-28848868.12	-28848867.89	-28848867.65	0.0136	0.0020
Uranus	-83696-02-11 23:01 J	-28848498.78	-28848498.54	-28848498.30	0.0137	0.0044
Uranus	-83695-02-16 03:06 J	-28848129.59	-28848129.37	-28848129.14	0.0137	0.0046
Uranus	-83694-02-20 13:25 J	-28847760.17	-28847759.94	-28847759.71	0.0138	0.0061
Uranus	-83693-02-24 18:28 J	-28847390.92	-28847390.73	-28847390.52	0.0139	0.0075
Jupiter	-83693-03-22 17:30 J	-28847363.97	-28847363.77	-28847363.57	0.0525	0.0210
Uranus	-83692-02-28 07:11 J	-28847021.41	-28847021.20	-28847020.99	0.0139	0.0078
Uranus	-83691-03-04 12:56 J	-28846652.10	-28846651.96	-28846651.78	0.0140	0.0102
Uranus	-83690-03-09 03:35 J	-28846282.51	-28846282.35	-28846282.15	0.0141	0.0099
Uranus	-83689-03-12 11:16 J	-28845913.15	-28845913.03	-28845912.91	0.0141	0.0121
Saturn	-83689-06-14 05:59 J	-28845819.34	-28845819.25	-28845819.13	0.0274	0.0247
Uranus	-83688-03-17 04:32 J	-28845543.43	-28845543.31	-28845543.17	0.0142	0.0122
Saturn	-83688-06-27 09:20 J	-28845441.30	-28845441.11	-28845440.90	0.0276	0.0158
Uranus	-83687-03-21 13:11 J	-28845174.02	-28845173.95	-28845173.85	0.0142	0.0133
Saturn	-83687-07-11 00:13 J	-28845062.72	-28845062.49	-28845062.24	0.0279	0.0059
Jupiter	-83687-10-03 02:08 J	-28844978.62	-28844978.41	-28844978.19	0.0505	0.0230
Saturn	-83686-07-24 23:01 J	-28844683.78	-28844683.54	-28844683.29	0.0282	0.0048
Uranus	-83685-03-29 20:08 J	-28844434.66	-28844434.66	-28844434.61	0.0144	0.0143
Saturn	-83685-08-07 03:06 J	-28844304.59	-28844304.37	-28844304.15	0.0284	0.0155
Saturn	-83684-08-21 13:25 J	-28843925.04	-28843924.94	-28843924.82	0.0287	0.0260
Mars	-83683-06-15 17:44 J	-28843626.96	-28843626.76	-28843626.56	0.1589	0.0079
Jupiter	-83681-03-27 11:44 J	-28842976.24	-28842976.01	-28842975.77	0.0523	0.0095
Jupiter	-83675-10-07 14:52 J	-28840590.96	-28840590.88	-28840590.79	0.0508	0.0475
Saturn	-83675-12-28 00:42 J	-28840509.61	-28840509.47	-28840509.32	0.0284	0.0222
Saturn	-83673-01-10 02:52 J	-28840131.58	-28840131.38	-28840131.16	0.0282	0.0122
Uranus	-83673-05-25 23:16 J	-28839994.53	-28839994.53	-28839994.53	0.0148	0.0148
Saturn	-83672-01-21 17:44 J	-28839754.01	-28839753.76	-28839753.52	0.0279	0.0016
Saturn	-83671-02-02 17:59 J	-28839376.98	-28839376.75	-28839376.51	0.0276	0.0096
Uranus	-83671-06-05 12:42 J	-28839254.02	-28839253.97	-28839253.87	0.0148	0.0141
Saturn	-83670-02-14 13:40 J	-28839000.09	-28838999.93	-28838999.77	0.0274	0.0199

Uranus	-83670-06-10 15:20 J	-28838883.99	-28838883.86	-28838883.70	0.0148	0.0121
Jupiter	-83669-04-01 00:42 J	-28838588.63	-28838588.47	-28838588.29	0.0521	0.0337
Uranus	-83669-06-15 05:01 J	-28838513.43	-28838513.29	-28838513.14	0.0147	0.0123
Uranus	-83668-06-20 05:59 J	-28838143.43	-28838143.25	-28838143.05	0.0147	0.0098
Uranus	-83667-06-25 21:35 J	-28837772.80	-28837772.60	-28837772.40	0.0147	0.0091
Uranus	-83666-06-30 22:32 J	-28837402.76	-28837402.56	-28837402.33	0.0146	0.0083
Uranus	-83665-07-05 13:40 J	-28837032.16	-28837031.93	-28837031.69	0.0146	0.0056
Uranus	-83664-07-10 16:04 J	-28836662.07	-28836661.83	-28836661.57	0.0146	0.0055
Uranus	-83663-07-16 04:04 J	-28836291.57	-28836291.33	-28836291.08	0.0145	0.0030
Uranus	-83662-07-21 08:37 J	-28835921.40	-28835921.14	-28835920.87	0.0145	0.0017
Uranus	-83661-07-25 15:49 J	-28835551.09	-28835550.84	-28835550.59	0.0144	0.0010
Uranus	-83660-07-30 22:32 J	-28835180.83	-28835180.56	-28835180.29	0.0144	0.0018
Saturn	-83659-06-21 17:30 J	-28834854.95	-28834854.77	-28834854.59	0.0275	0.0197
Uranus	-83659-08-05 00:56 J	-28834810.71	-28834810.46	-28834810.21	0.0143	0.0019
Saturn	-83658-07-04 19:25 J	-28834476.92	-28834476.69	-28834476.45	0.0278	0.0105
Uranus	-83658-08-10 09:06 J	-28834440.37	-28834440.12	-28834439.85	0.0142	0.0042
Saturn	-83657-07-17 10:32 J	-28834098.30	-28834098.06	-28834097.81	0.0280	0.0006
Uranus	-83657-08-14 07:25 J	-28834070.43	-28834070.19	-28834069.95	0.0142	0.0056
Saturn	-83656-07-31 14:52 J	-28833719.11	-28833718.88	-28833718.65	0.0283	0.0104
Uranus	-83656-08-19 16:04 J	-28833700.06	-28833699.83	-28833699.57	0.0141	0.0059
Saturn	-83655-08-15 04:47 J	-28833339.46	-28833339.30	-28833339.13	0.0286	0.0211
Uranus	-83655-08-24 11:01 J	-28833330.24	-28833330.04	-28833329.82	0.0140	0.0085
Uranus	-83654-08-29 19:11 J	-28832959.90	-28832959.70	-28832959.48	0.0140	0.0083
Uranus	-83653-09-02 11:16 J	-28832590.20	-28832590.03	-28832589.84	0.0139	0.0102
Uranus	-83652-09-07 17:01 J	-28832219.93	-28832219.79	-28832219.64	0.0138	0.0113
Uranus	-83651-09-12 07:40 J	-28831850.32	-28831850.18	-28831850.03	0.0138	0.0114
Neptune	-83650-03-25 22:32 J	-28831655.65	-28831655.56	-28831655.41	0.0089	0.0078
Uranus	-83650-09-17 09:20 J	-28831480.13	-28831480.11	-28831480.04	0.0137	0.0136
Neptune	-83649-03-27 03:06 J	-28831288.53	-28831288.37	-28831288.17	0.0089	0.0063
Uranus	-83649-09-20 23:16 J	-28831110.61	-28831110.53	-28831110.43	0.0137	0.0128

Neptune -83648-03-29 18:28 J -28830920.95 -28830920.73 -28830920.48 0.0089 0.0031
 Neptune -83647-03-31 21:06 J -28830553.86 -28830553.62 -28830553.37 0.0089 0.0017
 Neptune -83646-04-03 12:56 J -28830186.20 -28830185.96 -28830185.70 0.0089 0.0015
 Saturn -83646-12-22 11:59 J -28829923.09 -28829923.00 -28829922.90 0.0286 0.0262
 Neptune -83645-04-04 17:16 J -28829819.01 -28829818.78 -28829818.55 0.0089 0.0029
 Mars -83645-12-22 16:32 J -28829556.98 -28829556.81 -28829556.64 0.1950 0.0716
 Saturn -83644-01-03 11:44 J -28829545.20 -28829545.01 -28829544.80 0.0284 0.0166
 Neptune -83644-04-07 05:30 J -28829451.44 -28829451.27 -28829451.06 0.0089 0.0061
 Saturn -83643-01-16 05:01 J -28829167.51 -28829167.29 -28829167.05 0.0281 0.0061
 Neptune -83643-04-09 13:40 J -28829084.02 -28829083.93 -28829083.78 0.0089 0.0077
 Saturn -83642-01-28 18:56 J -28828789.93 -28828789.71 -28828789.48 0.0278 0.0052
 Saturn -83641-02-09 23:30 J -28828412.71 -28828412.52 -28828412.32 0.0276 0.0161
 Saturn -83640-02-20 15:35 J -28828035.93 -28828035.85 -28828035.76 0.0273 0.0255
 Mars -83636-06-10 03:06 J -28826465.48 -28826465.37 -28826465.27 0.1584 0.1313
 Saturn -83630-06-16 11:59 J -28824268.11 -28824268.00 -28824267.87 0.0274 0.0236
 Uranus -83630-12-09 08:37 J -28824092.23 -28824092.14 -28824092.03 0.0131 0.0119
 Saturn -83629-06-28 18:28 J -28823889.94 -28823889.73 -28823889.52 0.0276 0.0146
 Uranus -83629-12-12 12:56 J -28823723.02 -28823722.96 -28823722.85 0.0131 0.0124
 Saturn -83628-07-12 06:56 J -28823511.46 -28823511.21 -28823510.96 0.0279 0.0045
 Jupiter -83628-09-22 08:52 J -28823439.28 -28823439.13 -28823438.97 0.0501 0.0375
 Uranus -83628-12-16 13:25 J -28823354.07 -28823353.94 -28823353.78 0.0131 0.0107
 Saturn -83627-07-26 01:40 J -28823132.69 -28823132.43 -28823132.18 0.0282 0.0060
 Uranus -83627-12-20 17:59 J -28822984.89 -28822984.75 -28822984.59 0.0131 0.0106
 Saturn -83626-08-09 04:04 J -28822753.53 -28822753.33 -28822753.11 0.0285 0.0167
 Uranus -83626-12-24 17:59 J -28822615.90 -28822615.75 -28822615.56 0.0132 0.0095
 Saturn -83625-08-22 17:16 J -28822373.84 -28822373.78 -28822373.69 0.0287 0.0272
 Uranus -83625-12-27 22:04 J -28822246.76 -28822246.58 -28822246.36 0.0132 0.0083
 Uranus -83624-12-31 22:47 J -28821877.73 -28821877.55 -28821877.35 0.0132 0.0080
 Uranus -83622-01-05 02:23 J -28821508.62 -28821508.40 -28821508.16 0.0132 0.0060
 Uranus -83621-01-09 02:37 J -28821139.59 -28821139.39 -28821139.17 0.0133 0.0064

Uranus	-83620-01-12 06:13 J	-28820770.48	-28820770.24	-28820769.99	0.0133	0.0040
Uranus	-83619-01-16 06:56 J	-28820401.43	-28820401.21	-28820400.98	0.0133	0.0040
Uranus	-83618-01-20 10:47 J	-28820032.30	-28820032.05	-28820031.79	0.0134	0.0022
Uranus	-83617-01-24 12:28 J	-28819663.21	-28819662.98	-28819662.74	0.0134	0.0013
Uranus	-83616-01-27 17:30 J	-28819294.03	-28819293.77	-28819293.52	0.0135	0.0005
Jupiter	-83616-09-27 11:16 J	-28819051.27	-28819051.03	-28819050.80	0.0503	0.0089
Saturn	-83616-12-29 08:37 J	-28818958.29	-28818958.14	-28818957.98	0.0284	0.0210
Uranus	-83615-01-31 20:08 J	-28818924.89	-28818924.66	-28818924.42	0.0135	0.0014
Saturn	-83614-01-11 07:54 J	-28818580.39	-28818580.17	-28818579.94	0.0282	0.0108
Uranus	-83614-02-05 01:54 J	-28818555.67	-28818555.42	-28818555.16	0.0136	0.0014
Saturn	-83613-01-23 17:01 J	-28818203.04	-28818202.79	-28818202.54	0.0279	0.0002
Uranus	-83613-02-09 05:30 J	-28818186.49	-28818186.27	-28818186.03	0.0136	0.0039
Saturn	-83612-02-03 18:42 J	-28817825.94	-28817825.72	-28817825.50	0.0276	0.0113
Uranus	-83612-02-12 12:42 J	-28817817.20	-28817816.97	-28817816.71	0.0137	0.0039
Saturn	-83611-02-15 19:54 J	-28817448.81	-28817448.67	-28817448.53	0.0274	0.0215
Uranus	-83611-02-16 17:44 J	-28817447.97	-28817447.76	-28817447.54	0.0137	0.0060
Uranus	-83610-02-21 02:37 J	-28817078.60	-28817078.39	-28817078.16	0.0138	0.0066
Jupiter	-83610-03-23 03:06 J	-28817048.58	-28817048.37	-28817048.15	0.0526	0.0218
Uranus	-83609-02-25 08:37 J	-28816709.33	-28816709.14	-28816708.93	0.0139	0.0076
Uranus	-83608-02-28 19:40 J	-28816339.85	-28816339.68	-28816339.47	0.0139	0.0095
Uranus	-83607-03-05 03:20 J	-28815970.53	-28815970.36	-28815970.18	0.0140	0.0094
Uranus	-83606-03-09 16:47 J	-28815600.91	-28815600.80	-28815600.64	0.0141	0.0119
Uranus	-83605-03-13 01:25 J	-28815231.55	-28815231.44	-28815231.28	0.0141	0.0117
Uranus	-83604-03-17 18:28 J	-28814861.79	-28814861.73	-28814861.62	0.0142	0.0133
Mars	-83604-06-18 00:13 J	-28814769.65	-28814769.49	-28814769.33	0.1590	0.0895
Jupiter	-83604-10-01 23:01 J	-28814663.76	-28814663.54	-28814663.31	0.0505	0.0202
Uranus	-83603-03-22 04:18 J	-28814492.35	-28814492.32	-28814492.26	0.0142	0.0140
Uranus	-83602-03-27 00:13 J	-28814122.50	-28814122.49	-28814122.44	0.0143	0.0142
Saturn	-83601-06-10 02:52 J	-28813681.40	-28813681.38	-28813681.32	0.0273	0.0269
Saturn	-83600-06-22 19:11 J	-28813303.89	-28813303.70	-28813303.51	0.0275	0.0185

Saturn	-83599-07-06 01:11 J	-28812925.68	-28812925.45	-28812925.21	0.0278	0.0092
Jupiter	-83598-03-27 16:18 J	-28812661.04	-28812660.82	-28812660.60	0.0523	0.0072
Saturn	-83598-07-19 20:37 J	-28812546.88	-28812546.64	-28812546.40	0.0280	0.0010
Saturn	-83597-08-02 01:11 J	-28812167.67	-28812167.45	-28812167.22	0.0283	0.0118
Saturn	-83596-08-16 12:13 J	-28811788.14	-28811787.99	-28811787.83	0.0286	0.0224
Jupiter	-83592-10-07 04:04 J	-28810275.43	-28810275.33	-28810275.22	0.0507	0.0450
Uranus	-83588-05-31 18:13 J	-28808942.78	-28808942.74	-28808942.68	0.0148	0.0144
Uranus	-83587-06-06 03:20 J	-28808572.46	-28808572.36	-28808572.24	0.0148	0.0133
Saturn	-83587-12-23 11:16 J	-28808372.14	-28808372.03	-28808371.91	0.0286	0.0253
Jupiter	-83586-04-01 10:18 J	-28808273.26	-28808273.07	-28808272.88	0.0521	0.0292
Uranus	-83586-06-11 06:42 J	-28808202.31	-28808202.22	-28808202.10	0.0148	0.0132
Saturn	-83585-01-05 14:23 J	-28807994.10	-28807993.90	-28807993.71	0.0284	0.0154
Uranus	-83585-06-15 19:54 J	-28807831.83	-28807831.67	-28807831.47	0.0147	0.0106
Saturn	-83584-01-17 11:59 J	-28807616.23	-28807616.00	-28807615.77	0.0281	0.0045
Uranus	-83584-06-20 21:35 J	-28807461.76	-28807461.60	-28807461.41	0.0147	0.0106
Saturn	-83583-01-30 00:28 J	-28807238.71	-28807238.48	-28807238.25	0.0278	0.0067
Uranus	-83583-06-26 12:56 J	-28807091.16	-28807090.96	-28807090.74	0.0147	0.0088
Saturn	-83582-02-10 22:47 J	-28806861.73	-28806861.55	-28806861.35	0.0276	0.0177
Uranus	-83582-07-01 13:54 J	-28806721.14	-28806720.92	-28806720.69	0.0147	0.0070
Saturn	-83581-02-22 14:37 J	-28806484.92	-28806484.89	-28806484.84	0.0273	0.0269
Uranus	-83581-07-06 04:47 J	-28806350.53	-28806350.30	-28806350.07	0.0146	0.0066
Uranus	-83580-07-11 06:28 J	-28805980.49	-28805980.23	-28805979.98	0.0146	0.0036
Uranus	-83579-07-16 18:56 J	-28805609.96	-28805609.71	-28805609.46	0.0145	0.0031
Uranus	-83578-07-21 22:32 J	-28805239.83	-28805239.56	-28805239.29	0.0145	0.0014
Uranus	-83577-07-26 06:56 J	-28804869.46	-28804869.21	-28804868.96	0.0144	0.0007
Uranus	-83576-07-31 12:42 J	-28804499.24	-28804498.97	-28804498.70	0.0144	0.0009
Uranus	-83575-08-05 16:18 J	-28804129.06	-28804128.82	-28804128.57	0.0143	0.0037
Uranus	-83574-08-10 23:44 J	-28803758.75	-28803758.51	-28803758.24	0.0142	0.0045
Uranus	-83573-08-14 22:32 J	-28803388.78	-28803388.56	-28803388.32	0.0142	0.0057
Uranus	-83572-08-20 06:56 J	-28803018.43	-28803018.21	-28803017.98	0.0141	0.0078

Saturn -83571-06-17 22:32 J -28802716.69 -28802716.56 -28802716.41 0.0274 0.0221
 Uranus -83571-08-25 01:40 J -28802648.63 -28802648.43 -28802648.20 0.0140 0.0077
 Saturn -83570-07-01 01:54 J -28802338.65 -28802338.42 -28802338.20 0.0276 0.0131
 Uranus -83570-08-30 09:20 J -28802278.28 -28802278.11 -28802277.92 0.0140 0.0101
 Saturn -83569-07-13 10:18 J -28801960.33 -28801960.07 -28801959.81 0.0279 0.0034
 Uranus -83569-09-03 01:25 J -28801908.60 -28801908.44 -28801908.25 0.0139 0.0104
 Pluto -83568-07-12 00:42 J -28801596.65 -28801596.47 -28801596.26 0.0066 0.0045
 Saturn -83568-07-27 05:01 J -28801581.53 -28801581.29 -28801581.04 0.0282 0.0073
 Uranus -83568-09-08 07:40 J -28801538.32 -28801538.18 -28801538.03 0.0138 0.0115
 Neptune -83568-09-29 00:13 J -28801517.63 -28801517.49 -28801517.29 0.0088 0.0070
 Pluto -83567-07-13 09:20 J -28801230.27 -28801230.11 -28801229.91 0.0067 0.0049
 Saturn -83567-08-10 11:44 J -28801202.19 -28801202.01 -28801201.81 0.0285 0.0183
 Uranus -83567-09-12 21:35 J -28801168.65 -28801168.60 -28801168.50 0.0138 0.0132
 Neptune -83567-10-01 16:32 J -28801150.00 -28801149.81 -28801149.59 0.0088 0.0054
 Saturn -83566-08-25 05:30 J -28800822.28 -28800822.27 -28800822.25 0.0287 0.0287
 Uranus -83566-09-18 00:28 J -28800798.55 -28800798.48 -28800798.36 0.0137 0.0128
 Neptune -83566-10-04 03:35 J -28800782.61 -28800782.35 -28800782.08 0.0088 0.0022
 Neptune -83565-10-05 23:01 J -28800414.79 -28800414.54 -28800414.27 0.0088 0.0006
 Neptune -83564-10-08 06:28 J -28800047.48 -28800047.23 -28800046.97 0.0088 0.0026
 Neptune -83563-10-11 03:06 J -28799679.58 -28799679.37 -28799679.12 0.0088 0.0043
 Neptune -83562-10-13 09:35 J -28799312.21 -28799312.10 -28799311.93 0.0088 0.0074
 Mars -83557-06-12 02:52 J -28797608.54 -28797608.38 -28797608.21 0.1585 0.0729
 Saturn -83557-12-30 15:35 J -28797407.03 -28797406.85 -28797406.67 0.0284 0.0196
 Saturn -83555-01-12 09:35 J -28797029.33 -28797029.10 -28797028.86 0.0282 0.0092
 Saturn -83554-01-24 19:11 J -28796651.94 -28796651.70 -28796651.46 0.0279 0.0016
 Saturn -83553-02-06 02:08 J -28796274.60 -28796274.41 -28796274.19 0.0276 0.0130
 Saturn -83552-02-17 04:04 J -28795897.44 -28795897.33 -28795897.19 0.0274 0.0231
 Uranus -83547-12-05 20:52 J -28793779.68 -28793779.63 -28793779.53 0.0131 0.0125
 Uranus -83546-12-09 23:01 J -28793410.54 -28793410.54 -28793410.52 0.0131 0.0131
 Jupiter -83545-09-21 19:11 J -28793123.84 -28793123.70 -28793123.55 0.0501 0.0402

Uranus	-83545-12-13 03:06 J	-28793041.51	-28793041.37	-28793041.23	0.0131	0.0111
Uranus	-83544-12-17 03:49 J	-28792672.43	-28792672.34	-28792672.20	0.0131	0.0116
Uranus	-83543-12-21 06:42 J	-28792303.37	-28792303.22	-28792303.03	0.0131	0.0099
Saturn	-83542-06-12 07:11 J	-28792130.29	-28792130.20	-28792130.11	0.0273	0.0254
Uranus	-83542-12-25 08:08 J	-28791934.33	-28791934.16	-28791933.98	0.0131	0.0093
Saturn	-83541-06-24 04:04 J	-28791752.52	-28791752.33	-28791752.13	0.0275	0.0170
Uranus	-83541-12-28 10:32 J	-28791565.24	-28791565.06	-28791564.85	0.0132	0.0085
Saturn	-83540-07-07 15:06 J	-28791374.10	-28791373.87	-28791373.64	0.0278	0.0078
Uranus	-83539-01-01 11:59 J	-28791196.20	-28791196.00	-28791195.79	0.0132	0.0069
Saturn	-83539-07-21 10:32 J	-28790995.30	-28790995.06	-28790994.81	0.0281	0.0025
Uranus	-83538-01-05 14:23 J	-28790827.11	-28790826.90	-28790826.67	0.0132	0.0069
Saturn	-83538-08-04 11:59 J	-28790616.21	-28790616.00	-28790615.76	0.0283	0.0134
Uranus	-83537-01-09 15:49 J	-28790458.05	-28790457.84	-28790457.60	0.0133	0.0047
Saturn	-83537-08-17 19:25 J	-28790236.82	-28790236.69	-28790236.54	0.0286	0.0239
Uranus	-83536-01-12 18:28 J	-28790088.96	-28790088.73	-28790088.48	0.0133	0.0049
Uranus	-83535-01-16 20:37 J	-28789719.87	-28789719.64	-28789719.40	0.0133	0.0026
Uranus	-83534-01-20 23:16 J	-28789350.78	-28789350.53	-28789350.27	0.0134	0.0023
Uranus	-83533-01-25 01:54 J	-28788981.66	-28788981.42	-28788981.18	0.0134	0.0009
Jupiter	-83533-09-26 08:23 J	-28788736.38	-28788736.15	-28788735.91	0.0503	0.0113
Uranus	-83532-01-28 05:16 J	-28788612.54	-28788612.28	-28788612.03	0.0135	0.0005
Uranus	-83531-02-01 08:37 J	-28788243.38	-28788243.14	-28788242.90	0.0135	0.0008
Uranus	-83530-02-05 12:56 J	-28787874.20	-28787873.96	-28787873.71	0.0136	0.0031
Uranus	-83529-02-09 17:44 J	-28787504.98	-28787504.76	-28787504.52	0.0136	0.0031
Uranus	-83528-02-12 23:59 J	-28787135.72	-28787135.50	-28787135.25	0.0137	0.0056
Saturn	-83528-12-24 17:16 J	-28786820.90	-28786820.78	-28786820.65	0.0286	0.0240
Uranus	-83527-02-17 06:13 J	-28786766.44	-28786766.24	-28786766.01	0.0137	0.0058
Jupiter	-83527-03-22 00:56 J	-28786733.65	-28786733.46	-28786733.26	0.0525	0.0253
Saturn	-83526-01-06 23:59 J	-28786442.70	-28786442.50	-28786442.29	0.0283	0.0139
Uranus	-83526-02-21 14:23 J	-28786397.11	-28786396.90	-28786396.68	0.0138	0.0073
Saturn	-83525-01-19 20:37 J	-28786064.88	-28786064.64	-28786064.41	0.0281	0.0031

Uranus -83525-02-25 21:35 J -28786027.78 -28786027.60 -28786027.40 0.0139 0.0086
 Mars -83525-06-19 22:47 J -28785912.67 -28785912.55 -28785912.42 0.1592 0.1129
 Saturn -83524-01-31 03:06 J -28785687.60 -28785687.37 -28785687.13 0.0278 0.0083
 Uranus -83524-03-01 07:25 J -28785658.36 -28785658.19 -28785657.97 0.0139 0.0091
 Saturn -83523-02-11 23:44 J -28785310.67 -28785310.51 -28785310.33 0.0276 0.0194
 Uranus -83523-03-05 15:49 J -28785288.97 -28785288.84 -28785288.69 0.0140 0.0113
 Uranus -83522-03-10 04:18 J -28784919.47 -28784919.32 -28784919.15 0.0141 0.0110
 Uranus -83521-03-13 13:11 J -28784550.00 -28784549.95 -28784549.84 0.0141 0.0134
 Jupiter -83521-10-01 11:30 J -28784348.24 -28784348.02 -28784347.80 0.0505 0.0179
 Uranus -83520-03-18 05:01 J -28784180.36 -28784180.29 -28784180.18 0.0142 0.0132
 Jupiter -83515-03-26 22:04 J -28782345.81 -28782345.58 -28782345.36 0.0524 0.0025
 Saturn -83512-06-19 08:52 J -28781165.29 -28781165.13 -28781164.96 0.0274 0.0205
 Saturn -83511-07-02 07:40 J -28780787.41 -28780787.18 -28780786.94 0.0277 0.0118
 Saturn -83510-07-15 17:30 J -28780409.02 -28780408.77 -28780408.52 0.0279 0.0021
 Saturn -83509-07-28 16:47 J -28780030.03 -28780029.80 -28780029.57 0.0282 0.0087
 Jupiter -83509-10-06 01:54 J -28779960.56 -28779960.42 -28779960.27 0.0507 0.0405
 Saturn -83508-08-12 03:06 J -28779650.53 -28779650.37 -28779650.18 0.0285 0.0197
 Uranus -83505-05-27 01:11 J -28778631.45 -28778631.45 -28778631.44 0.0148 0.0148
 Jupiter -83503-03-31 05:30 J -28777958.46 -28777958.27 -28777958.07 0.0522 0.0256
 Uranus -83503-06-06 15:35 J -28777890.92 -28777890.85 -28777890.73 0.0148 0.0138
 Uranus -83502-06-11 20:08 J -28777520.79 -28777520.66 -28777520.49 0.0148 0.0118
 Uranus -83501-06-16 08:23 J -28777150.29 -28777150.15 -28777149.98 0.0148 0.0119
 Uranus -83500-06-21 10:47 J -28776780.23 -28776780.05 -28776779.84 0.0147 0.0094
 Uranus -83499-06-27 02:08 J -28776409.61 -28776409.41 -28776409.19 0.0147 0.0085
 Saturn -83499-12-19 17:16 J -28776233.84 -28776233.78 -28776233.70 0.0287 0.0275
 Uranus -83498-07-02 03:20 J -28776039.57 -28776039.36 -28776039.13 0.0147 0.0075
 Saturn -83497-01-01 20:08 J -28775855.85 -28775855.66 -28775855.46 0.0284 0.0180
 Uranus -83497-07-06 18:56 J -28775668.95 -28775668.71 -28775668.46 0.0146 0.0047
 Saturn -83496-01-13 14:08 J -28775478.14 -28775477.91 -28775477.68 0.0281 0.0077
 Uranus -83496-07-11 20:08 J -28775298.90 -28775298.66 -28775298.40 0.0146 0.0046

Saturn -83495-01-26 04:18 J -28775100.55 -28775100.32 -28775100.09 0.0279 0.0034
 Uranus -83495-07-17 09:35 J -28774928.35 -28774928.10 -28774927.84 0.0145 0.0020
 Saturn -83494-02-07 12:42 J -28774723.16 -28774722.97 -28774722.76 0.0276 0.0145
 Uranus -83494-07-22 12:13 J -28774558.26 -28774557.99 -28774557.72 0.0145 0.0007
 Saturn -83493-02-19 09:06 J -28774346.22 -28774346.12 -28774346.00 0.0274 0.0243
 Uranus -83493-07-26 21:20 J -28774187.86 -28774187.61 -28774187.35 0.0144 0.0002
 Uranus -83492-08-01 01:40 J -28773817.68 -28773817.43 -28773817.15 0.0144 0.0030
 Jupiter -83491-04-05 05:01 J -28773570.33 -28773570.29 -28773570.25 0.0520 0.0511
 Uranus -83491-08-06 06:42 J -28773447.47 -28773447.22 -28773446.98 0.0143 0.0032
 Uranus -83490-08-11 13:11 J -28773077.20 -28773076.95 -28773076.70 0.0142 0.0054
 Uranus -83489-08-15 12:42 J -28772707.17 -28772706.97 -28772706.73 0.0142 0.0069
 Uranus -83488-08-20 20:37 J -28772336.85 -28772336.64 -28772336.39 0.0141 0.0072
 Uranus -83487-08-25 16:47 J -28771966.98 -28771966.80 -28771966.61 0.0140 0.0098
 Uranus -83486-08-31 00:13 J -28771596.67 -28771596.49 -28771596.28 0.0140 0.0096
 Neptune -83485-03-26 17:44 J -28771387.90 -28771387.76 -28771387.59 0.0089 0.0069
 Uranus -83485-09-03 16:47 J -28771226.94 -28771226.80 -28771226.65 0.0139 0.0116
 Neptune -83484-03-28 20:23 J -28771020.86 -28771020.65 -28771020.44 0.0089 0.0048
 Uranus -83484-09-08 22:32 J -28770856.66 -28770856.56 -28770856.44 0.0139 0.0126
 Neptune -83483-03-31 11:16 J -28770653.27 -28770653.03 -28770652.77 0.0089 0.0024
 Saturn -83483-06-13 17:01 J -28770578.89 -28770578.79 -28770578.66 0.0273 0.0241
 Uranus -83483-09-13 12:13 J -28770487.07 -28770486.99 -28770486.87 0.0138 0.0127
 Neptune -83482-04-02 16:18 J -28770286.06 -28770285.82 -28770285.58 0.0089 0.0003
 Saturn -83482-06-26 19:11 J -28770200.89 -28770200.70 -28770200.49 0.0276 0.0156
 Pluto -83481-01-16 22:47 J -28769996.77 -28769996.55 -28769996.33 0.0078 0.0034
 Neptune -83481-04-04 03:49 J -28769918.58 -28769918.34 -28769918.07 0.0089 0.0023
 Saturn -83481-07-09 05:59 J -28769822.49 -28769822.25 -28769822.00 0.0278 0.0062
 Neptune -83480-04-06 13:40 J -28769551.13 -28769550.93 -28769550.71 0.0089 0.0044
 Saturn -83480-07-22 21:49 J -28769443.85 -28769443.59 -28769443.33 0.0281 0.0040
 Neptune -83479-04-08 20:08 J -28769183.81 -28769183.66 -28769183.48 0.0089 0.0068
 Saturn -83479-08-05 21:06 J -28769064.84 -28769064.62 -28769064.39 0.0283 0.0147

Mars -83478-06-14 21:35 J -28768751.77 -28768751.60 -28768751.42 0.1586 0.0042
 Saturn -83478-08-20 05:59 J -28768685.36 -28768685.25 -28768685.12 0.0286 0.0253
 Saturn -83469-12-26 05:59 J -28765269.38 -28765269.25 -28765269.10 0.0286 0.0226
 Saturn -83467-01-08 11:30 J -28764891.24 -28764891.02 -28764890.81 0.0283 0.0123
 Saturn -83466-01-21 02:08 J -28764513.65 -28764513.41 -28764513.16 0.0280 0.0013
 Saturn -83465-02-02 06:13 J -28764136.46 -28764136.24 -28764136.01 0.0278 0.0100
 Saturn -83464-02-13 07:54 J -28763759.31 -28763759.17 -28763759.00 0.0275 0.0207
 Jupiter -83462-09-21 15:35 J -28762808.97 -28762808.85 -28762808.72 0.0501 0.0428
 Uranus -83462-12-10 12:56 J -28762729.05 -28762728.96 -28762728.84 0.0131 0.0117
 Uranus -83461-12-13 15:35 J -28762359.93 -28762359.85 -28762359.75 0.0131 0.0122
 Uranus -83460-12-17 18:13 J -28761990.88 -28761990.74 -28761990.59 0.0131 0.0103
 Uranus -83459-12-21 20:23 J -28761621.80 -28761621.65 -28761621.48 0.0131 0.0102
 Uranus -83458-12-25 22:32 J -28761252.72 -28761252.56 -28761252.37 0.0131 0.0090
 Uranus -83457-12-29 00:28 J -28760883.68 -28760883.48 -28760883.26 0.0132 0.0078
 Uranus -83455-01-02 02:23 J -28760514.58 -28760514.40 -28760514.18 0.0132 0.0075
 Uranus -83454-01-06 03:35 J -28760145.58 -28760145.35 -28760145.11 0.0132 0.0055
 Uranus -83453-01-10 05:44 J -28759776.47 -28759776.26 -28759776.04 0.0133 0.0057
 Saturn -83453-06-20 16:04 J -28759614.01 -28759613.83 -28759613.64 0.0274 0.0191
 Uranus -83452-01-13 06:42 J -28759407.46 -28759407.22 -28759406.96 0.0133 0.0033
 Saturn -83452-07-03 17:01 J -28759236.01 -28759235.79 -28759235.55 0.0277 0.0102
 Uranus -83451-01-17 09:49 J -28759038.33 -28759038.09 -28759037.86 0.0133 0.0033
 Saturn -83451-07-17 08:37 J -28758857.38 -28758857.14 -28758856.89 0.0279 0.0005
 Uranus -83450-01-21 11:16 J -28758669.28 -28758669.03 -28758668.77 0.0134 0.0013
 Saturn -83450-07-31 11:16 J -28758478.25 -28758478.03 -28758477.80 0.0282 0.0102
 Jupiter -83450-09-26 15:20 J -28758421.09 -28758420.86 -28758420.64 0.0502 0.0140
 Uranus -83449-01-25 15:20 J -28758300.10 -28758299.86 -28758299.62 0.0134 0.0006
 Saturn -83449-08-13 21:20 J -28758098.77 -28758098.61 -28758098.43 0.0285 0.0211
 Uranus -83448-01-28 17:44 J -28757931.02 -28757930.76 -28757930.51 0.0135 0.0004
 Uranus -83447-02-01 22:32 J -28757561.79 -28757561.56 -28757561.32 0.0135 0.0023
 Uranus -83446-02-06 02:08 J -28757192.66 -28757192.41 -28757192.16 0.0136 0.0024

Uranus -83445-02-10 07:54 J -28756823.38 -28756823.17 -28756822.94 0.0136 0.0050
 Uranus -83444-02-13 12:42 J -28756454.20 -28756453.97 -28756453.72 0.0137 0.0049
 Jupiter -83444-03-21 07:54 J -28756418.36 -28756418.17 -28756417.98 0.0527 0.0285
 Uranus -83443-02-17 19:25 J -28756084.88 -28756084.69 -28756084.47 0.0137 0.0071
 Uranus -83442-02-22 01:54 J -28755715.62 -28755715.42 -28755715.19 0.0138 0.0076
 Uranus -83441-02-26 10:18 J -28755346.25 -28755346.07 -28755345.88 0.0139 0.0088
 Uranus -83440-03-01 18:42 J -28754976.86 -28754976.72 -28754976.53 0.0139 0.0105
 Saturn -83440-12-21 01:11 J -28754682.53 -28754682.45 -28754682.33 0.0287 0.0262
 Uranus -83439-03-06 04:32 J -28754607.45 -28754607.31 -28754607.15 0.0140 0.0106
 Saturn -83438-01-03 03:49 J -28754304.53 -28754304.34 -28754304.14 0.0284 0.0165
 Uranus -83438-03-10 15:49 J -28754237.91 -28754237.84 -28754237.72 0.0141 0.0130
 Jupiter -83438-10-01 05:30 J -28754033.50 -28754033.27 -28754033.02 0.0504 0.0138
 Saturn -83437-01-16 02:08 J -28753926.64 -28753926.41 -28753926.18 0.0281 0.0058
 Uranus -83437-03-14 02:52 J -28753868.48 -28753868.38 -28753868.27 0.0141 0.0127
 Saturn -83436-01-27 17:44 J -28753548.99 -28753548.76 -28753548.53 0.0279 0.0052
 Saturn -83435-02-08 21:06 J -28753171.81 -28753171.62 -28753171.41 0.0276 0.0159
 Saturn -83434-02-20 12:56 J -28752795.03 -28752794.96 -28752794.86 0.0274 0.0255
 Jupiter -83432-03-25 17:44 J -28752030.98 -28752030.76 -28752030.53 0.0525 0.0013
 Mars -83431-06-08 22:47 J -28751590.63 -28751590.55 -28751590.47 0.1582 0.1413
 Jupiter -83426-10-06 00:28 J -28749645.64 -28749645.48 -28749645.32 0.0506 0.0360
 Saturn -83424-06-15 09:49 J -28749027.21 -28749027.09 -28749026.94 0.0273 0.0227
 Saturn -83423-06-28 12:13 J -28748649.21 -28748648.99 -28748648.78 0.0276 0.0137
 Saturn -83422-07-11 18:56 J -28748270.97 -28748270.71 -28748270.46 0.0278 0.0044
 Saturn -83421-07-24 08:37 J -28747892.40 -28747892.14 -28747891.89 0.0281 0.0055
 Jupiter -83420-03-30 17:59 J -28747642.95 -28747642.75 -28747642.54 0.0522 0.0222
 Uranus -83420-06-01 20:08 J -28747579.70 -28747579.66 -28747579.58 0.0148 0.0143
 Saturn -83420-08-07 10:18 J -28747513.26 -28747513.07 -28747512.85 0.0284 0.0163
 Uranus -83419-06-07 03:20 J -28747209.45 -28747209.36 -28747209.22 0.0148 0.0132
 Saturn -83419-08-21 23:44 J -28747133.59 -28747133.51 -28747133.43 0.0286 0.0269
 Uranus -83418-06-12 09:49 J -28746839.21 -28746839.09 -28746838.97 0.0148 0.0128

Uranus	-83417-06-16 21:06 J	-28746468.79	-28746468.62	-28746468.41	0.0148	0.0102
Uranus	-83416-06-22 00:28 J	-28746098.64	-28746098.48	-28746098.28	0.0147	0.0102
Uranus	-83415-06-27 15:20 J	-28745728.07	-28745727.86	-28745727.64	0.0147	0.0081
Uranus	-83414-07-02 16:32 J	-28745358.03	-28745357.81	-28745357.57	0.0147	0.0063
Uranus	-83413-07-07 07:54 J	-28744987.41	-28744987.17	-28744986.93	0.0146	0.0058
Uranus	-83412-07-12 08:37 J	-28744617.39	-28744617.14	-28744616.88	0.0146	0.0027
Uranus	-83411-07-17 22:47 J	-28744246.80	-28744246.55	-28744246.30	0.0145	0.0022
Uranus	-83410-07-23 00:42 J	-28743876.74	-28743876.47	-28743876.21	0.0145	0.0004
Saturn	-83410-12-28 20:23 J	-28743717.80	-28743717.65	-28743717.48	0.0285	0.0211
Uranus	-83409-07-27 11:16 J	-28743506.28	-28743506.03	-28743505.78	0.0144	0.0018
Saturn	-83408-01-09 19:40 J	-28743339.90	-28743339.68	-28743339.44	0.0283	0.0106
Jupiter	-83408-04-04 01:11 J	-28743255.54	-28743255.45	-28743255.35	0.0520	0.0471
Uranus	-83408-08-01 15:06 J	-28743136.13	-28743135.87	-28743135.60	0.0144	0.0021
Saturn	-83407-01-22 07:11 J	-28742962.45	-28742962.20	-28742961.96	0.0280	0.0006
Uranus	-83407-08-06 21:06 J	-28742765.85	-28742765.62	-28742765.38	0.0143	0.0050
Saturn	-83406-02-03 14:37 J	-28742585.10	-28742584.89	-28742584.67	0.0278	0.0117
Uranus	-83406-08-12 02:37 J	-28742395.62	-28742395.39	-28742395.12	0.0142	0.0057
Saturn	-83405-02-15 19:54 J	-28742207.80	-28742207.67	-28742207.53	0.0275	0.0220
Uranus	-83405-08-16 03:35 J	-28742025.56	-28742025.35	-28742025.11	0.0142	0.0070
Uranus	-83404-08-21 10:18 J	-28741655.25	-28741655.07	-28741654.84	0.0141	0.0092
Neptune	-83404-09-28 04:18 J	-28741617.33	-28741617.32	-28741617.27	0.0088	0.0088
Uranus	-83403-08-26 06:56 J	-28741285.39	-28741285.21	-28741285.00	0.0141	0.0090
Neptune	-83403-09-30 12:56 J	-28741250.12	-28741249.96	-28741249.73	0.0088	0.0063
Uranus	-83402-08-31 13:40 J	-28740915.07	-28740914.93	-28740914.76	0.0140	0.0114
Neptune	-83402-10-03 09:49 J	-28740882.30	-28740882.09	-28740881.83	0.0088	0.0042
Uranus	-83401-09-04 06:28 J	-28740545.35	-28740545.23	-28740545.08	0.0139	0.0117
Neptune	-83401-10-04 17:30 J	-28740515.03	-28740514.77	-28740514.50	0.0088	0.0013
Uranus	-83400-09-09 12:13 J	-28740175.07	-28740174.99	-28740174.87	0.0139	0.0128
Neptune	-83400-10-07 14:37 J	-28740147.15	-28740146.89	-28740146.61	0.0088	0.0008
Mars	-83399-06-16 17:30 J	-28739894.95	-28739894.77	-28739894.59	0.1587	0.0314

Neptune -83399-10-09 22:04 J -28739779.80 -28739779.58 -28739779.32 0.0088 0.0036
 Neptune -83398-10-12 16:47 J -28739412.00 -28739411.80 -28739411.56 0.0088 0.0054
 Neptune -83397-10-14 04:18 J -28739044.41 -28739044.32 -28739044.22 0.0088 0.0082
 Saturn -83395-06-10 08:23 J -28738440.22 -28738440.15 -28738440.07 0.0273 0.0261
 Saturn -83394-06-23 01:11 J -28738062.63 -28738062.45 -28738062.25 0.0275 0.0177
 Saturn -83393-07-05 08:08 J -28737684.39 -28737684.16 -28737683.93 0.0277 0.0085
 Saturn -83392-07-19 02:52 J -28737305.63 -28737305.38 -28737305.14 0.0280 0.0012
 Saturn -83391-08-02 04:18 J -28736926.54 -28736926.32 -28736926.08 0.0282 0.0118
 Saturn -83390-08-16 11:30 J -28736547.17 -28736547.02 -28736546.85 0.0285 0.0224
 Saturn -83381-12-22 11:01 J -28733131.15 -28733131.04 -28733130.92 0.0286 0.0249
 Saturn -83379-01-04 17:16 J -28732752.97 -28732752.78 -28732752.57 0.0284 0.0148
 Jupiter -83379-09-20 21:06 J -28732493.70 -28732493.62 -28732493.52 0.0500 0.0459
 Uranus -83379-12-07 00:13 J -28732416.57 -28732416.49 -28732416.41 0.0131 0.0124
 Saturn -83378-01-17 17:16 J -28732375.01 -28732374.78 -28732374.55 0.0281 0.0040
 Uranus -83378-12-11 03:35 J -28732047.35 -28732047.35 -28732047.29 0.0131 0.0130
 Saturn -83377-01-30 04:18 J -28731997.55 -28731997.32 -28731997.08 0.0278 0.0070
 Uranus -83377-12-14 05:16 J -28731678.40 -28731678.28 -28731678.11 0.0131 0.0109
 Saturn -83376-02-10 02:37 J -28731620.56 -28731620.39 -28731620.19 0.0276 0.0177
 Uranus -83376-12-18 08:52 J -28731309.24 -28731309.13 -28731308.99 0.0131 0.0112
 Saturn -83375-02-21 21:35 J -28731243.63 -28731243.60 -28731243.55 0.0273 0.0268
 Uranus -83375-12-22 09:35 J -28730940.28 -28730940.10 -28730939.91 0.0131 0.0094
 Uranus -83374-12-26 12:28 J -28730571.15 -28730570.98 -28730570.79 0.0131 0.0089
 Uranus -83373-12-29 12:42 J -28730202.17 -28730201.97 -28730201.75 0.0132 0.0079
 Uranus -83371-01-02 15:49 J -28729833.04 -28729832.84 -28729832.62 0.0132 0.0064
 Uranus -83370-01-06 15:49 J -28729464.05 -28729463.84 -28729463.60 0.0132 0.0063
 Uranus -83369-01-10 19:25 J -28729094.91 -28729094.69 -28729094.45 0.0132 0.0041
 Uranus -83368-01-13 19:40 J -28728725.92 -28728725.68 -28728725.43 0.0133 0.0042
 Uranus -83367-01-17 23:44 J -28728356.74 -28728356.51 -28728356.27 0.0133 0.0018
 Jupiter -83367-09-25 08:52 J -28728106.36 -28728106.13 -28728105.89 0.0502 0.0176
 Uranus -83366-01-21 23:59 J -28727987.76 -28727987.50 -28727987.24 0.0134 0.0015

Uranus -83365-01-26 04:32 J -28727618.55 -28727618.31 -28727618.06 0.0134 0.0003
 Saturn -83365-06-17 01:54 J -28727475.57 -28727475.42 -28727475.25 0.0274 0.0211
 Uranus -83364-01-29 05:30 J -28727249.52 -28727249.27 -28727249.01 0.0134 0.0012
 Saturn -83364-06-30 00:28 J -28727097.71 -28727097.48 -28727097.24 0.0276 0.0122
 Uranus -83363-02-02 11:01 J -28726880.27 -28726880.04 -28726879.79 0.0135 0.0019
 Saturn -83363-07-13 06:13 J -28726719.50 -28726719.24 -28726718.99 0.0279 0.0028
 Uranus -83362-02-06 13:11 J -28726511.18 -28726510.95 -28726510.70 0.0135 0.0041
 Saturn -83362-07-26 23:59 J -28726340.74 -28726340.50 -28726340.26 0.0281 0.0073
 Uranus -83361-02-10 20:23 J -28726141.87 -28726141.65 -28726141.41 0.0136 0.0041
 Jupiter -83361-03-20 04:32 J -28726103.48 -28726103.31 -28726103.13 0.0527 0.0318
 Saturn -83361-08-09 06:42 J -28725961.41 -28725961.22 -28725961.03 0.0284 0.0180
 Mars -83361-12-21 21:20 J -28725826.82 -28725826.61 -28725826.41 0.1955 0.0653
 Uranus -83360-02-13 23:44 J -28725772.71 -28725772.51 -28725772.27 0.0137 0.0067
 Saturn -83360-08-23 22:04 J -28725581.60 -28725581.58 -28725581.54 0.0286 0.0284
 Uranus -83359-02-18 08:08 J -28725403.36 -28725403.16 -28725402.94 0.0137 0.0067
 Uranus -83358-02-22 13:25 J -28725034.13 -28725033.94 -28725033.73 0.0138 0.0085
 Uranus -83357-02-26 22:47 J -28724664.72 -28724664.55 -28724664.38 0.0138 0.0096
 Uranus -83356-03-02 05:44 J -28724295.42 -28724295.26 -28724295.07 0.0139 0.0102
 Uranus -83355-03-06 16:04 J -28723925.93 -28723925.83 -28723925.71 0.0140 0.0124
 Jupiter -83355-09-30 06:56 J -28723718.44 -28723718.21 -28723717.99 0.0504 0.0101
 Uranus -83354-03-11 01:54 J -28723556.54 -28723556.42 -28723556.28 0.0140 0.0121
 Uranus -83352-03-19 02:37 J -28722817.39 -28722817.39 -28722817.37 0.0142 0.0142
 Mars -83352-06-10 23:30 J -28722733.69 -28722733.52 -28722733.35 0.1582 0.0835
 Saturn -83351-12-30 08:23 J -28722166.33 -28722166.15 -28722165.97 0.0285 0.0194
 Saturn -83349-01-12 03:35 J -28721788.58 -28721788.35 -28721788.11 0.0282 0.0089
 Jupiter -83349-03-25 03:06 J -28721715.59 -28721715.37 -28721715.15 0.0525 0.0050
 Saturn -83348-01-23 18:13 J -28721410.98 -28721410.74 -28721410.51 0.0280 0.0024
 Saturn -83347-02-05 04:47 J -28721033.50 -28721033.30 -28721033.10 0.0277 0.0134
 Saturn -83346-02-17 06:28 J -28720656.35 -28720656.23 -28720656.10 0.0275 0.0233
 Jupiter -83343-10-05 06:28 J -28719330.41 -28719330.23 -28719330.03 0.0506 0.0321

Jupiter -83337-03-29 11:30 J -28717328.24 -28717328.02 -28717327.79 0.0523 0.0172
 Uranus -83337-05-27 21:20 J -28717268.61 -28717268.61 -28717268.59 0.0148 0.0148
 Saturn -83336-06-11 16:47 J -28716888.89 -28716888.80 -28716888.69 0.0273 0.0247
 Uranus -83335-06-07 12:42 J -28716528.07 -28716527.97 -28716527.86 0.0148 0.0134
 Saturn -83335-06-24 16:04 J -28716511.02 -28716510.83 -28716510.63 0.0275 0.0163
 Uranus -83334-06-12 19:40 J -28716157.82 -28716157.68 -28716157.51 0.0148 0.0115
 Saturn -83334-07-08 01:54 J -28716132.65 -28716132.42 -28716132.18 0.0277 0.0069
 Uranus -83333-06-17 05:44 J -28715787.41 -28715787.26 -28715787.08 0.0148 0.0115
 Saturn -83333-07-20 18:42 J -28715753.97 -28715753.72 -28715753.46 0.0280 0.0032
 Uranus -83332-06-22 10:18 J -28715417.26 -28715417.07 -28715416.86 0.0147 0.0088
 Saturn -83332-08-03 17:01 J -28715375.02 -28715374.79 -28715374.56 0.0283 0.0134
 Uranus -83331-06-28 00:13 J -28715046.69 -28715046.49 -28715046.25 0.0147 0.0080
 Saturn -83331-08-17 23:16 J -28714995.66 -28714995.53 -28714995.38 0.0285 0.0238
 Uranus -83330-07-03 02:23 J -28714676.62 -28714676.40 -28714676.16 0.0147 0.0067
 Uranus -83329-07-07 17:59 J -28714305.99 -28714305.75 -28714305.49 0.0146 0.0040
 Uranus -83328-07-12 19:11 J -28713935.95 -28713935.70 -28713935.45 0.0146 0.0037
 Uranus -83327-07-18 09:49 J -28713565.35 -28713565.09 -28713564.83 0.0146 0.0010
 Uranus -83326-07-23 10:47 J -28713195.31 -28713195.05 -28713194.78 0.0145 0.0003
 Jupiter -83325-04-03 02:37 J -28712940.50 -28712940.39 -28712940.26 0.0521 0.0439
 Uranus -83325-07-27 22:32 J -28712824.81 -28712824.56 -28712824.31 0.0144 0.0012
 Uranus -83324-08-02 00:56 J -28712454.70 -28712454.46 -28712454.18 0.0144 0.0041
 Uranus -83323-08-07 08:37 J -28712084.37 -28712084.14 -28712083.89 0.0143 0.0043
 Pluto -83322-07-14 07:11 J -28711743.46 -28711743.20 -28711742.92 0.0066 0.0013
 Uranus -83322-08-12 13:11 J -28711714.17 -28711713.95 -28711713.69 0.0143 0.0067
 Saturn -83322-12-25 02:23 J -28711579.53 -28711579.40 -28711579.26 0.0286 0.0233
 Neptune -83321-03-25 19:25 J -28711487.80 -28711487.69 -28711487.57 0.0089 0.0077
 Uranus -83321-08-16 15:49 J -28711344.03 -28711343.84 -28711343.62 0.0142 0.0080
 Saturn -83320-01-06 09:35 J -28711201.29 -28711201.10 -28711200.88 0.0283 0.0132
 Neptune -83320-03-28 09:20 J -28711120.26 -28711120.11 -28711119.90 0.0089 0.0064
 Mars -83320-06-18 21:49 J -28711037.71 -28711037.59 -28711037.47 0.1588 0.1273

Uranus -83320-08-21 22:18 J -28710973.77 -28710973.57 -28710973.34 0.0141 0.0085
 Saturn -83319-01-19 05:16 J -28710823.52 -28710823.28 -28710823.04 0.0281 0.0024
 Neptune -83319-03-30 15:06 J -28710753.09 -28710752.87 -28710752.64 0.0089 0.0032
 Uranus -83319-08-26 19:40 J -28710603.81 -28710603.68 -28710603.50 0.0141 0.0111
 Saturn -83318-01-31 10:18 J -28710446.30 -28710446.07 -28710445.83 0.0278 0.0090
 Neptune -83318-04-02 01:11 J -28710385.70 -28710385.45 -28710385.19 0.0089 0.0018
 Uranus -83318-09-01 02:23 J -28710233.55 -28710233.40 -28710233.21 0.0140 0.0109
 Saturn -83317-02-12 10:04 J -28710069.24 -28710069.08 -28710068.90 0.0276 0.0194
 Neptune -83317-04-03 11:16 J -28710018.26 -28710018.03 -28710017.78 0.0089 0.0014
 Uranus -83317-09-04 19:40 J -28709863.75 -28709863.68 -28709863.56 0.0139 0.0130
 Neptune -83316-04-05 17:01 J -28709651.02 -28709650.79 -28709650.53 0.0089 0.0027
 Uranus -83316-09-10 01:25 J -28709493.45 -28709493.44 -28709493.41 0.0139 0.0138
 Neptune -83315-04-08 08:08 J -28709283.33 -28709283.16 -28709282.97 0.0089 0.0059
 Neptune -83314-04-10 11:01 J -28708916.17 -28708916.04 -28708915.88 0.0089 0.0073
 Saturn -83306-06-19 11:59 J -28705924.16 -28705924.00 -28705923.80 0.0274 0.0197
 Saturn -83305-07-01 09:20 J -28705546.34 -28705546.11 -28705545.86 0.0276 0.0108
 Saturn -83304-07-14 19:40 J -28705167.93 -28705167.68 -28705167.44 0.0279 0.0011
 Saturn -83303-07-28 18:42 J -28704788.94 -28704788.72 -28704788.49 0.0282 0.0093
 Saturn -83302-08-12 03:20 J -28704409.53 -28704409.36 -28704409.17 0.0284 0.0196
 Jupiter -83296-09-19 15:35 J -28702178.89 -28702178.85 -28702178.79 0.0500 0.0489
 Uranus -83294-12-11 18:28 J -28701365.82 -28701365.73 -28701365.60 0.0131 0.0116
 Uranus -83293-12-14 19:11 J -28700996.78 -28700996.70 -28700996.58 0.0131 0.0120
 Saturn -83293-12-18 12:13 J -28700993.04 -28700992.99 -28700992.91 0.0287 0.0276
 Uranus -83292-12-18 23:44 J -28700627.65 -28700627.51 -28700627.34 0.0131 0.0100
 Saturn -83292-12-31 16:18 J -28700615.00 -28700614.82 -28700614.62 0.0284 0.0180
 Uranus -83291-12-22 23:59 J -28700258.66 -28700258.50 -28700258.32 0.0131 0.0099
 Saturn -83290-01-13 14:23 J -28700237.13 -28700236.90 -28700236.67 0.0282 0.0073
 Uranus -83290-12-27 04:04 J -28699889.50 -28699889.33 -28699889.13 0.0131 0.0084
 Saturn -83289-01-26 08:23 J -28699859.38 -28699859.15 -28699858.92 0.0279 0.0041
 Uranus -83289-12-30 03:20 J -28699520.56 -28699520.36 -28699520.13 0.0132 0.0073

Saturn	-83288-02-06 16:47 J	-28699482.00	-28699481.80	-28699481.60	0.0277	0.0151
Uranus	-83287-01-03 07:11 J	-28699151.39	-28699151.20	-28699150.97	0.0132	0.0069
Saturn	-83287-02-18 12:13 J	-28699105.09	-28699104.99	-28699104.88	0.0275	0.0245
Uranus	-83286-01-07 06:13 J	-28698782.48	-28698782.24	-28698782.00	0.0132	0.0048
Uranus	-83285-01-11 10:18 J	-28698413.28	-28698413.07	-28698412.83	0.0132	0.0050
Uranus	-83284-01-14 09:20 J	-28698044.36	-28698044.11	-28698043.85	0.0133	0.0025
Jupiter	-83284-09-24 12:42 J	-28697791.18	-28697790.97	-28697790.76	0.0502	0.0197
Uranus	-83283-01-18 14:08 J	-28697675.14	-28697674.91	-28697674.67	0.0133	0.0025
Uranus	-83282-01-22 13:40 J	-28697306.18	-28697305.93	-28697305.67	0.0133	0.0005
Mars	-83282-12-26 15:49 J	-28696967.89	-28696967.84	-28696967.80	0.1952	0.1884
Uranus	-83281-01-26 19:54 J	-28696936.91	-28696936.67	-28696936.43	0.0134	0.0003
Uranus	-83280-01-29 19:54 J	-28696567.91	-28696567.67	-28696567.41	0.0134	0.0015
Uranus	-83279-02-03 03:06 J	-28696198.60	-28696198.37	-28696198.14	0.0135	0.0032
Uranus	-83278-02-07 04:18 J	-28695829.57	-28695829.32	-28695829.07	0.0135	0.0035
Jupiter	-83278-03-20 12:13 J	-28695788.14	-28695787.99	-28695787.82	0.0527	0.0356
Uranus	-83277-02-11 11:44 J	-28695460.22	-28695460.01	-28695459.79	0.0136	0.0061
Saturn	-83277-06-13 04:18 J	-28695337.43	-28695337.32	-28695337.19	0.0273	0.0235
Uranus	-83276-02-14 13:54 J	-28695091.14	-28695090.92	-28695090.68	0.0137	0.0060
Saturn	-83276-06-26 07:11 J	-28694959.40	-28694959.20	-28694958.99	0.0275	0.0149
Uranus	-83275-02-18 22:32 J	-28694721.74	-28694721.56	-28694721.36	0.0137	0.0083
Saturn	-83275-07-09 15:20 J	-28694581.10	-28694580.86	-28694580.61	0.0278	0.0054
Uranus	-83274-02-23 02:52 J	-28694352.58	-28694352.38	-28694352.18	0.0138	0.0086
Saturn	-83274-07-23 05:01 J	-28694202.55	-28694202.29	-28694202.04	0.0280	0.0047
Uranus	-83273-02-27 12:56 J	-28693983.12	-28693982.96	-28693982.79	0.0138	0.0100
Mars	-83273-06-13 07:40 J	-28693876.38	-28693876.18	-28693875.98	0.1583	0.0297
Saturn	-83273-08-05 03:06 J	-28693823.58	-28693823.37	-28693823.14	0.0283	0.0149
Uranus	-83272-03-02 18:42 J	-28693613.83	-28693613.72	-28693613.55	0.0139	0.0117
Saturn	-83272-08-19 13:11 J	-28693444.05	-28693443.95	-28693443.82	0.0286	0.0253
Jupiter	-83272-09-29 09:20 J	-28693403.35	-28693403.11	-28693402.86	0.0503	0.0068
Uranus	-83271-03-07 06:28 J	-28693244.34	-28693244.23	-28693244.08	0.0140	0.0118

Uranus	-83270-03-11 15:49 J	-28692874.84	-28692874.84	-28692874.81	0.0140	0.0140
Uranus	-83269-03-15 04:18 J	-28692505.36	-28692505.32	-28692505.25	0.0141	0.0137
Jupiter	-83266-03-24 19:11 J	-28691400.92	-28691400.70	-28691400.47	0.0526	0.0100
Saturn	-83263-12-26 20:08 J	-28690027.81	-28690027.66	-28690027.50	0.0286	0.0216
Saturn	-83261-01-08 23:59 J	-28689649.73	-28689649.50	-28689649.28	0.0283	0.0114
Saturn	-83260-01-20 13:11 J	-28689272.20	-28689271.95	-28689271.70	0.0280	0.0006
Jupiter	-83260-10-03 22:32 J	-28689015.75	-28689015.56	-28689015.37	0.0505	0.0284
Saturn	-83259-02-01 18:28 J	-28688894.95	-28688894.73	-28688894.51	0.0278	0.0108
Saturn	-83258-02-13 22:32 J	-28688517.70	-28688517.56	-28688517.41	0.0275	0.0209
Jupiter	-83254-03-29 15:06 J	-28687013.08	-28687012.87	-28687012.66	0.0524	0.0131
Uranus	-83252-06-02 19:54 J	-28686216.73	-28686216.67	-28686216.58	0.0148	0.0141
Uranus	-83251-06-08 00:56 J	-28685846.57	-28685846.46	-28685846.32	0.0148	0.0130
Uranus	-83250-06-13 09:06 J	-28685476.23	-28685476.12	-28685475.97	0.0148	0.0125
Uranus	-83249-06-17 18:28 J	-28685105.91	-28685105.73	-28685105.51	0.0148	0.0098
Saturn	-83248-06-08 05:59 J	-28684750.28	-28684750.25	-28684750.17	0.0272	0.0266
Uranus	-83248-06-23 00:13 J	-28684735.68	-28684735.49	-28684735.30	0.0147	0.0097
Saturn	-83247-06-20 18:42 J	-28684372.89	-28684372.72	-28684372.52	0.0274	0.0183
Uranus	-83247-06-28 12:56 J	-28684365.18	-28684364.96	-28684364.73	0.0147	0.0074
Uranus	-83246-07-03 15:20 J	-28683995.09	-28683994.86	-28683994.62	0.0147	0.0056
Saturn	-83246-07-03 20:52 J	-28683994.85	-28683994.63	-28683994.39	0.0277	0.0094 *
Uranus	-83245-07-08 06:13 J	-28683624.48	-28683624.24	-28683623.99	0.0146	0.0049
Saturn	-83245-07-16 11:59 J	-28683616.24	-28683616.00	-28683615.75	0.0279	0.0006
Uranus	-83244-07-13 06:56 J	-28683254.46	-28683254.21	-28683253.95	0.0146	0.0018
Saturn	-83244-07-30 12:28 J	-28683237.20	-28683236.98	-28683236.74	0.0282	0.0109
Uranus	-83243-07-18 22:04 J	-28682883.83	-28682883.58	-28682883.32	0.0146	0.0014
Saturn	-83243-08-13 19:11 J	-28682857.87	-28682857.70	-28682857.53	0.0285	0.0212
Jupiter	-83242-04-03 09:06 J	-28682625.25	-28682625.12	-28682624.97	0.0522	0.0411
Uranus	-83242-07-23 22:47 J	-28682513.81	-28682513.55	-28682513.28	0.0145	0.0006
Mars	-83241-06-21 06:13 J	-28682180.28	-28682180.24	-28682180.19	0.1589	0.1535
Uranus	-83241-07-28 11:44 J	-28682143.26	-28682143.01	-28682142.76	0.0144	0.0028

Uranus -83240-08-02 13:40 J -28681773.18 -28681772.93 -28681772.66 0.0144 0.0032
 Uranus -83239-08-07 22:32 J -28681402.79 -28681402.56 -28681402.33 0.0143 0.0062
 Neptune -83239-09-29 20:52 J -28681349.77 -28681349.63 -28681349.46 0.0088 0.0071
 Uranus -83238-08-13 02:08 J -28681032.64 -28681032.41 -28681032.17 0.0143 0.0067
 Neptune -83238-10-02 04:04 J -28680982.51 -28680982.33 -28680982.11 0.0088 0.0056
 Uranus -83237-08-17 05:44 J -28680662.46 -28680662.26 -28680662.05 0.0142 0.0082
 Neptune -83237-10-04 00:56 J -28680614.70 -28680614.46 -28680614.18 0.0088 0.0025
 Uranus -83236-08-22 10:32 J -28680292.23 -28680292.06 -28680291.86 0.0141 0.0103
 Neptune -83236-10-06 10:18 J -28680247.32 -28680247.07 -28680246.81 0.0088 0.0009
 Pluto -83235-01-18 11:30 J -28680143.27 -28680143.02 -28680142.76 0.0078 0.0015
 Uranus -83235-08-27 08:52 J -28679922.28 -28679922.13 -28679921.93 0.0141 0.0103
 Neptune -83235-10-09 03:20 J -28679879.62 -28679879.36 -28679879.09 0.0088 0.0023
 Uranus -83234-09-01 14:23 J -28679551.99 -28679551.90 -28679551.77 0.0140 0.0127
 Neptune -83234-10-11 16:04 J -28679512.05 -28679511.83 -28679511.59 0.0088 0.0039
 Saturn -83234-12-20 21:35 J -28679441.69 -28679441.60 -28679441.49 0.0286 0.0261
 Uranus -83233-09-05 08:52 J -28679182.21 -28679182.13 -28679182.03 0.0139 0.0130
 Neptune -83233-10-13 04:04 J -28679144.47 -28679144.33 -28679144.14 0.0088 0.0070
 Saturn -83232-01-02 03:49 J -28679063.53 -28679063.34 -28679063.14 0.0284 0.0163
 Neptune -83232-10-15 21:49 J -28678776.63 -28678776.59 -28678776.51 0.0088 0.0086
 Saturn -83231-01-15 04:47 J -28678685.53 -28678685.30 -28678685.07 0.0281 0.0055
 Saturn -83230-01-27 20:23 J -28678307.88 -28678307.65 -28678307.41 0.0279 0.0057
 Saturn -83229-02-08 22:04 J -28677930.77 -28677930.58 -28677930.38 0.0276 0.0167
 Saturn -83228-02-19 16:04 J -28677553.90 -28677553.83 -28677553.75 0.0274 0.0259
 Saturn -83218-06-15 16:18 J -28673785.95 -28673785.82 -28673785.67 0.0273 0.0220
 Saturn -83217-06-27 16:18 J -28673408.04 -28673407.82 -28673407.60 0.0276 0.0134
 Saturn -83216-07-10 21:06 J -28673029.88 -28673029.62 -28673029.37 0.0278 0.0041
 Saturn -83215-07-24 11:44 J -28672651.26 -28672651.01 -28672650.76 0.0281 0.0060
 Saturn -83214-08-07 14:52 J -28672272.07 -28672271.88 -28672271.67 0.0283 0.0166
 Saturn -83213-08-21 05:44 J -28671892.34 -28671892.26 -28671892.18 0.0286 0.0268
 Uranus -83211-12-08 04:18 J -28671053.38 -28671053.32 -28671053.21 0.0131 0.0124

Uranus	-83210-12-12 10:32 J	-28670684.09	-28670684.06	-28670683.99	0.0131	0.0128
Uranus	-83209-12-15 10:04 J	-28670315.21	-28670315.08	-28670314.91	0.0131	0.0106
Uranus	-83208-12-19 15:20 J	-28669945.98	-28669945.86	-28669945.71	0.0131	0.0109
Uranus	-83207-12-23 13:54 J	-28669577.09	-28669576.92	-28669576.71	0.0131	0.0089
Uranus	-83206-12-27 19:11 J	-28669207.88	-28669207.70	-28669207.51	0.0131	0.0084
Uranus	-83205-12-30 17:16 J	-28668838.98	-28668838.78	-28668838.55	0.0132	0.0073
Saturn	-83204-12-28 07:54 J	-28668476.33	-28668476.17	-28668475.98	0.0286	0.0199
Uranus	-83203-01-03 22:18 J	-28668469.78	-28668469.57	-28668469.34	0.0132	0.0058
Uranus	-83202-01-07 20:37 J	-28668100.87	-28668100.64	-28668100.40	0.0132	0.0056
Saturn	-83202-01-10 06:13 J	-28668098.47	-28668098.24	-28668098.00	0.0283	0.0095
Uranus	-83201-01-12 02:08 J	-28667731.64	-28667731.41	-28667731.17	0.0132	0.0033
Saturn	-83201-01-22 19:11 J	-28667720.94	-28667720.70	-28667720.45	0.0280	0.0013
Jupiter	-83201-09-23 15:49 J	-28667476.06	-28667475.84	-28667475.61	0.0501	0.0215
Uranus	-83200-01-15 00:13 J	-28667362.73	-28667362.49	-28667362.23	0.0133	0.0034
Saturn	-83200-02-03 05:16 J	-28667343.49	-28667343.28	-28667343.07	0.0277	0.0124
Uranus	-83199-01-19 06:13 J	-28666993.48	-28666993.24	-28666993.00	0.0133	0.0010
Saturn	-83199-02-15 10:04 J	-28666966.21	-28666966.08	-28666965.94	0.0275	0.0224
Uranus	-83198-01-23 04:47 J	-28666624.56	-28666624.30	-28666624.05	0.0133	0.0007
Uranus	-83197-01-27 11:16 J	-28666255.27	-28666255.03	-28666254.79	0.0134	0.0010
Uranus	-83196-01-30 10:32 J	-28665886.31	-28665886.06	-28665885.81	0.0134	0.0022
Uranus	-83195-02-03 17:59 J	-28665516.98	-28665516.75	-28665516.51	0.0135	0.0029
Jupiter	-83195-03-19 05:16 J	-28665473.43	-28665473.28	-28665473.13	0.0528	0.0398
Uranus	-83194-02-07 17:59 J	-28665147.97	-28665147.75	-28665147.50	0.0135	0.0053
Mars	-83194-06-16 12:13 J	-28665019.17	-28665018.99	-28665018.81	0.1584	0.0462
Uranus	-83193-02-12 03:06 J	-28664778.59	-28664778.37	-28664778.15	0.0136	0.0052
Uranus	-83192-02-15 04:18 J	-28664409.51	-28664409.32	-28664409.09	0.0137	0.0078
Uranus	-83191-02-19 14:08 J	-28664040.09	-28664039.91	-28664039.70	0.0137	0.0078
Uranus	-83190-02-23 17:30 J	-28663670.94	-28663670.77	-28663670.58	0.0138	0.0097
Uranus	-83189-02-28 04:18 J	-28663301.46	-28663301.32	-28663301.16	0.0138	0.0107
Saturn	-83189-06-09 08:52 J	-28663199.23	-28663199.13	-28663199.03	0.0272	0.0249

Jupiter -83189-09-28 03:49 J -28663088.58 -28663088.34 -28663088.11 0.0502 0.0033
 Uranus -83188-03-03 09:20 J -28662932.24 -28662932.11 -28662931.95 0.0139 0.0114
 Saturn -83188-06-22 02:23 J -28662821.59 -28662821.40 -28662821.20 0.0275 0.0168
 Uranus -83187-03-07 21:20 J -28662562.64 -28662562.61 -28662562.53 0.0140 0.0136
 Saturn -83187-07-05 10:04 J -28662443.31 -28662443.08 -28662442.85 0.0277 0.0080
 Uranus -83186-03-12 05:16 J -28662193.35 -28662193.28 -28662193.18 0.0140 0.0132
 Saturn -83186-07-19 01:40 J -28662064.68 -28662064.43 -28662064.18 0.0280 0.0019
 Saturn -83185-07-31 23:16 J -28661685.75 -28661685.53 -28661685.29 0.0282 0.0125
 Saturn -83184-08-15 02:52 J -28661306.52 -28661306.38 -28661306.21 0.0285 0.0227
 Jupiter -83183-03-24 04:04 J -28661085.54 -28661085.33 -28661085.12 0.0526 0.0140
 Jupiter -83177-10-03 07:25 J -28658700.40 -28658700.19 -28658699.98 0.0504 0.0249
 Saturn -83175-12-22 08:52 J -28657890.24 -28657890.13 -28657889.99 0.0286 0.0244
 Saturn -83173-01-04 18:42 J -28657511.92 -28657511.72 -28657511.52 0.0284 0.0144
 Saturn -83172-01-16 17:59 J -28657133.99 -28657133.75 -28657133.51 0.0281 0.0038
 Saturn -83171-01-29 03:20 J -28656756.60 -28656756.36 -28656756.12 0.0278 0.0074
 Jupiter -83171-03-28 21:49 J -28656697.82 -28656697.59 -28656697.36 0.0524 0.0099
 Saturn -83170-02-10 01:40 J -28656379.59 -28656379.43 -28656379.23 0.0276 0.0184
 Saturn -83169-02-22 00:28 J -28656002.51 -28656002.48 -28656002.45 0.0274 0.0271
 Uranus -83169-05-28 22:04 J -28655905.59 -28655905.58 -28655905.54 0.0148 0.0147
 Uranus -83168-06-03 09:20 J -28655535.11 -28655535.11 -28655535.08 0.0148 0.0148
 Uranus -83167-06-08 12:28 J -28655165.08 -28655164.98 -28655164.84 0.0148 0.0131
 Uranus -83166-06-13 22:04 J -28654794.72 -28654794.58 -28654794.40 0.0148 0.0112
 Uranus -83165-06-18 05:59 J -28654424.42 -28654424.25 -28654424.06 0.0148 0.0110
 Jupiter -83165-10-07 20:23 J -28654312.69 -28654312.65 -28654312.61 0.0507 0.0498
 Uranus -83164-06-23 12:28 J -28654054.17 -28654053.98 -28654053.76 0.0147 0.0082
 Uranus -83163-06-29 00:42 J -28653683.69 -28653683.47 -28653683.24 0.0147 0.0074
 Uranus -83162-07-04 03:49 J -28653313.56 -28653313.34 -28653313.10 0.0147 0.0059
 Uranus -83161-07-08 18:56 J -28652942.97 -28652942.71 -28652942.46 0.0146 0.0031
 Uranus -83160-07-13 19:54 J -28652572.91 -28652572.67 -28652572.41 0.0146 0.0029
 Jupiter -83159-04-02 08:52 J -28652310.27 -28652310.13 -28652309.97 0.0522 0.0381

Saturn -83159-06-16 22:18 J -28652234.73 -28652234.57 -28652234.40 0.0274 0.0204
 Uranus -83159-07-19 11:01 J -28652202.29 -28652202.04 -28652201.78 0.0146 0.0003
 Saturn -83158-06-29 17:44 J -28651856.99 -28651856.76 -28651856.52 0.0276 0.0122
 Uranus -83158-07-24 11:30 J -28651832.28 -28651832.02 -28651831.76 0.0145 0.0011
 Saturn -83157-07-11 23:59 J -28651478.74 -28651478.50 -28651478.24 0.0278 0.0030
 Uranus -83157-07-29 00:42 J -28651461.72 -28651461.47 -28651461.21 0.0144 0.0023
 Neptune -83156-03-27 13:40 J -28651220.06 -28651219.93 -28651219.77 0.0089 0.0071
 Saturn -83156-07-25 20:08 J -28651099.89 -28651099.66 -28651099.42 0.0281 0.0074
 Uranus -83156-08-03 01:40 J -28651091.67 -28651091.43 -28651091.17 0.0144 0.0052
 Neptune -83155-03-29 23:16 J -28650852.74 -28650852.53 -28650852.31 0.0089 0.0048
 Uranus -83155-08-08 11:44 J -28650721.24 -28650721.01 -28650720.77 0.0143 0.0054
 Saturn -83155-08-09 03:06 J -28650720.54 -28650720.37 -28650720.17 0.0284 0.0181
 Neptune -83154-04-01 10:32 J -28650485.28 -28650485.06 -28650484.82 0.0089 0.0027
 Uranus -83154-08-13 14:08 J -28650351.12 -28650350.91 -28650350.67 0.0143 0.0079
 Saturn -83154-08-23 17:59 J -28650340.79 -28650340.75 -28650340.69 0.0286 0.0280
 Neptune -83153-04-02 15:20 J -28650118.12 -28650117.86 -28650117.61 0.0089 0.0003
 Uranus -83153-08-17 19:40 J -28649980.87 -28649980.68 -28649980.49 0.0142 0.0091
 Neptune -83152-04-05 06:13 J -28649750.48 -28649750.24 -28649749.99 0.0089 0.0020
 Uranus -83152-08-22 23:30 J -28649610.70 -28649610.52 -28649610.31 0.0141 0.0097
 Neptune -83151-04-07 08:23 J -28649383.35 -28649383.15 -28649382.91 0.0089 0.0043
 Uranus -83151-08-27 23:16 J -28649240.64 -28649240.53 -28649240.39 0.0141 0.0123
 Neptune -83150-04-10 00:28 J -28649015.64 -28649015.48 -28649015.29 0.0089 0.0065
 Uranus -83150-09-02 04:04 J -28648870.45 -28648870.33 -28648870.18 0.0140 0.0121
 Neptune -83149-04-11 04:18 J -28648648.35 -28648648.32 -28648648.27 0.0089 0.0087
 Mars -83147-06-10 17:16 J -28647857.93 -28647857.78 -28647857.64 0.1581 0.0935
 Saturn -83146-12-17 06:56 J -28647303.27 -28647303.21 -28647303.14 0.0288 0.0275
 Saturn -83145-12-29 13:40 J -28646925.12 -28646924.93 -28646924.73 0.0285 0.0181
 Saturn -83143-01-11 11:01 J -28646547.27 -28646547.04 -28646546.80 0.0283 0.0078
 Saturn -83142-01-24 04:18 J -28646169.55 -28646169.32 -28646169.09 0.0280 0.0031
 Saturn -83141-02-05 15:35 J -28645792.05 -28645791.85 -28645791.65 0.0277 0.0141

Saturn	-83140-02-16 14:37 J	-28645415.00	-28645414.89	-28645414.76	0.0275	0.0237
Saturn	-83130-06-11 12:13 J	-28641648.10	-28641647.99	-28641647.86	0.0272	0.0236
Saturn	-83129-06-23 11:30 J	-28641270.22	-28641270.02	-28641269.82	0.0275	0.0155
Saturn	-83128-07-06 18:42 J	-28640891.96	-28640891.72	-28640891.48	0.0277	0.0066
Saturn	-83127-07-20 06:42 J	-28640513.47	-28640513.22	-28640512.96	0.0280	0.0032
Saturn	-83126-08-03 02:23 J	-28640134.62	-28640134.40	-28640134.16	0.0283	0.0136
Uranus	-83126-12-13 01:54 J	-28640002.53	-28640002.42	-28640002.29	0.0131	0.0114
Saturn	-83125-08-16 08:23 J	-28639755.27	-28639755.15	-28639755.00	0.0285	0.0240
Uranus	-83125-12-16 00:28 J	-28639633.57	-28639633.48	-28639633.35	0.0131	0.0118
Uranus	-83124-12-20 06:42 J	-28639264.37	-28639264.22	-28639264.03	0.0131	0.0096
Uranus	-83123-12-24 05:01 J	-28638895.46	-28638895.29	-28638895.10	0.0131	0.0094
Uranus	-83122-12-28 11:01 J	-28638526.23	-28638526.04	-28638525.83	0.0131	0.0079
Uranus	-83121-12-31 08:23 J	-28638157.36	-28638157.15	-28638156.92	0.0132	0.0068
Uranus	-83119-01-04 13:54 J	-28637788.12	-28637787.92	-28637787.69	0.0132	0.0063
Uranus	-83118-01-08 11:16 J	-28637419.26	-28637419.03	-28637418.78	0.0132	0.0042
Jupiter	-83118-09-23 13:40 J	-28637161.14	-28637160.93	-28637160.73	0.0500	0.0240
Uranus	-83117-01-12 17:16 J	-28637050.00	-28637049.78	-28637049.54	0.0132	0.0043
Uranus	-83116-01-15 14:52 J	-28636681.13	-28636680.88	-28636680.62	0.0133	0.0016
Saturn	-83116-12-23 21:06 J	-28636338.75	-28636338.62	-28636338.47	0.0286	0.0228
Uranus	-83115-01-19 21:35 J	-28636311.84	-28636311.60	-28636311.36	0.0133	0.0016
Mars	-83115-06-18 10:04 J	-28636162.23	-28636162.08	-28636161.92	0.1585	0.0793
Saturn	-83114-01-06 05:16 J	-28635960.48	-28635960.28	-28635960.06	0.0283	0.0127
Uranus	-83114-01-23 19:40 J	-28635942.93	-28635942.68	-28635942.42	0.0133	0.0006
Saturn	-83113-01-18 23:01 J	-28635582.79	-28635582.54	-28635582.29	0.0281	0.0018
Uranus	-83113-01-28 03:35 J	-28635573.59	-28635573.35	-28635573.11	0.0134	0.0012
Saturn	-83112-01-30 05:01 J	-28635205.51	-28635205.29	-28635205.05	0.0278	0.0092
Uranus	-83112-01-31 02:08 J	-28635204.65	-28635204.41	-28635204.15	0.0134	0.0024
Jupiter	-83112-03-18 17:16 J	-28635157.91	-28635157.78	-28635157.65	0.0529	0.0420
Uranus	-83111-02-04 10:32 J	-28634835.28	-28634835.06	-28634834.83	0.0135	0.0043
Saturn	-83111-02-11 08:08 J	-28634828.31	-28634828.16	-28634827.99	0.0276	0.0197

Uranus	-83110-02-08 09:49 J	-28634466.31	-28634466.09	-28634465.84	0.0135	0.0046
Uranus	-83109-02-12 18:56 J	-28634096.90	-28634096.71	-28634096.49	0.0136	0.0072
Uranus	-83108-02-15 19:25 J	-28633727.89	-28633727.69	-28633727.46	0.0137	0.0071
Uranus	-83107-02-20 05:44 J	-28633358.42	-28633358.26	-28633358.07	0.0137	0.0094
Uranus	-83106-02-24 08:08 J	-28632989.32	-28632989.16	-28632988.97	0.0138	0.0098
Jupiter	-83106-09-28 15:49 J	-28632773.08	-28632772.84	-28632772.60	0.0502	0.0010
Uranus	-83105-02-28 20:23 J	-28632619.78	-28632619.65	-28632619.51	0.0138	0.0112
Uranus	-83104-03-04 00:56 J	-28632250.55	-28632250.46	-28632250.36	0.0139	0.0127
Uranus	-83103-03-08 13:54 J	-28631880.98	-28631880.92	-28631880.81	0.0140	0.0130
Saturn	-83101-06-05 09:06 J	-28631061.15	-28631061.12	-28631061.08	0.0272	0.0268
Jupiter	-83100-03-23 10:18 J	-28630770.29	-28630770.07	-28630769.85	0.0527	0.0175
Saturn	-83100-06-17 20:23 J	-28630683.84	-28630683.65	-28630683.47	0.0274	0.0191
Saturn	-83099-06-30 17:44 J	-28630305.99	-28630305.76	-28630305.53	0.0276	0.0108
Saturn	-83098-07-14 05:44 J	-28629927.50	-28629927.26	-28629927.01	0.0279	0.0017
Saturn	-83097-07-27 04:47 J	-28629548.52	-28629548.30	-28629548.06	0.0281	0.0087
Saturn	-83096-08-10 11:01 J	-28629169.22	-28629169.04	-28629168.85	0.0284	0.0192
Jupiter	-83094-10-03 04:18 J	-28628385.53	-28628385.32	-28628385.10	0.0504	0.0227
Jupiter	-83088-03-27 18:42 J	-28626382.93	-28626382.72	-28626382.50	0.0525	0.0058
Saturn	-83087-12-18 09:49 J	-28625752.18	-28625752.09	-28625751.98	0.0288	0.0263
Saturn	-83086-12-31 17:16 J	-28625373.98	-28625373.78	-28625373.58	0.0285	0.0166
Saturn	-83084-01-12 19:11 J	-28624995.93	-28624995.70	-28624995.47	0.0283	0.0059
Uranus	-83084-06-04 02:23 J	-28624853.47	-28624853.40	-28624853.30	0.0148	0.0138
Saturn	-83083-01-25 13:54 J	-28624618.15	-28624617.92	-28624617.69	0.0280	0.0051
Uranus	-83083-06-09 05:30 J	-28624483.40	-28624483.27	-28624483.14	0.0148	0.0127
Saturn	-83082-02-06 20:37 J	-28624240.84	-28624240.64	-28624240.44	0.0277	0.0155
Uranus	-83082-06-14 15:35 J	-28624112.99	-28624112.85	-28624112.70	0.0148	0.0120
Jupiter	-83082-10-08 07:11 J	-28623997.26	-28623997.20	-28623997.13	0.0506	0.0485
Saturn	-83081-02-18 14:08 J	-28623864.00	-28623863.91	-28623863.80	0.0274	0.0249
Uranus	-83081-06-18 22:18 J	-28623742.76	-28623742.57	-28623742.35	0.0148	0.0093
Uranus	-83080-06-24 05:44 J	-28623372.45	-28623372.26	-28623372.06	0.0147	0.0091

Uranus	-83079-06-29 16:18 J	-28623002.04	-28623001.82	-28623001.57	0.0147	0.0067
Uranus	-83078-07-04 20:23 J	-28622631.88	-28622631.65	-28622631.41	0.0147	0.0048
Uranus	-83077-07-09 10:18 J	-28622261.32	-28622261.07	-28622260.82	0.0146	0.0041
Mars	-83077-12-20 00:56 J	-28622097.66	-28622097.46	-28622097.26	0.1958	0.0082
Jupiter	-83076-04-01 17:01 J	-28621994.96	-28621994.79	-28621994.62	0.0523	0.0349
Uranus	-83076-07-14 11:44 J	-28621891.27	-28621891.01	-28621890.75	0.0146	0.0009
Pluto	-83076-07-15 10:47 J	-28621890.31	-28621890.05	-28621889.79	0.0067	0.0014
Uranus	-83075-07-20 02:52 J	-28621520.64	-28621520.38	-28621520.12	0.0146	0.0004
Neptune	-83075-09-28 14:08 J	-28621449.91	-28621449.91	-28621449.88	0.0088	0.0088
Uranus	-83074-07-25 03:20 J	-28621150.62	-28621150.36	-28621150.10	0.0145	0.0017
Neptune	-83074-10-01 09:35 J	-28621082.26	-28621082.10	-28621081.89	0.0088	0.0065
Uranus	-83073-07-29 17:16 J	-28620780.02	-28620779.78	-28620779.52	0.0144	0.0039
Neptune	-83073-10-02 20:23 J	-28620714.85	-28620714.65	-28620714.40	0.0088	0.0043
Uranus	-83072-08-03 17:59 J	-28620410.00	-28620409.75	-28620409.49	0.0144	0.0044
Neptune	-83072-10-05 12:13 J	-28620347.24	-28620346.99	-28620346.70	0.0088	0.0018
Saturn	-83071-06-12 18:28 J	-28620096.86	-28620096.73	-28620096.59	0.0272	0.0224
Uranus	-83071-08-09 04:18 J	-28620039.52	-28620039.32	-28620039.09	0.0143	0.0074
Neptune	-83071-10-08 04:04 J	-28619979.59	-28619979.33	-28619979.08	0.0088	0.0005
Saturn	-83070-06-25 16:32 J	-28619719.02	-28619718.81	-28619718.59	0.0275	0.0140
Uranus	-83070-08-14 05:59 J	-28619669.47	-28619669.25	-28619669.02	0.0143	0.0079
Neptune	-83070-10-10 14:23 J	-28619612.14	-28619611.90	-28619611.63	0.0088	0.0031
Saturn	-83069-07-07 18:56 J	-28619340.96	-28619340.71	-28619340.45	0.0277	0.0053
Uranus	-83069-08-18 11:44 J	-28619299.19	-28619299.01	-28619298.81	0.0142	0.0095
Neptune	-83069-10-12 09:20 J	-28619244.30	-28619244.11	-28619243.87	0.0088	0.0052
Mars	-83068-06-12 10:32 J	-28619001.23	-28619001.06	-28619000.88	0.1581	0.0431
Saturn	-83068-07-21 05:16 J	-28618962.54	-28618962.28	-28618962.03	0.0280	0.0043
Uranus	-83068-08-23 14:23 J	-28618929.05	-28618928.90	-28618928.73	0.0141	0.0115
Neptune	-83068-10-14 16:32 J	-28618876.92	-28618876.81	-28618876.66	0.0088	0.0076
Saturn	-83067-08-04 04:04 J	-28618583.53	-28618583.33	-28618583.11	0.0283	0.0148
Uranus	-83067-08-28 14:37 J	-28618559.01	-28618558.89	-28618558.73	0.0141	0.0116

Saturn	-83066-08-18 15:06 J	-28618203.98	-28618203.87	-28618203.75	0.0286	0.0253
Uranus	-83066-09-02 18:28 J	-28618188.73	-28618188.73	-28618188.70	0.0140	0.0140
Saturn	-83057-12-25 06:56 J	-28614787.37	-28614787.21	-28614787.05	0.0286	0.0213
Saturn	-83055-01-07 09:20 J	-28614409.34	-28614409.11	-28614408.88	0.0283	0.0109
Saturn	-83054-01-19 23:30 J	-28614031.76	-28614031.52	-28614031.27	0.0280	0.0002
Saturn	-83053-02-01 09:06 J	-28613654.33	-28613654.12	-28613653.90	0.0278	0.0110
Saturn	-83052-02-12 15:49 J	-28613276.98	-28613276.84	-28613276.69	0.0275	0.0210
Uranus	-83043-12-09 10:32 J	-28609690.15	-28609690.06	-28609689.96	0.0131	0.0122
Saturn	-83042-06-07 04:18 J	-28609510.40	-28609510.32	-28609510.23	0.0272	0.0256
Uranus	-83042-12-13 17:59 J	-28609320.80	-28609320.75	-28609320.67	0.0131	0.0126
Saturn	-83041-06-18 17:01 J	-28609132.96	-28609132.79	-28609132.59	0.0274	0.0180
Uranus	-83041-12-16 15:20 J	-28608952.00	-28608951.86	-28608951.68	0.0131	0.0103
Saturn	-83040-07-01 20:23 J	-28608754.87	-28608754.65	-28608754.42	0.0276	0.0096
Uranus	-83040-12-20 22:18 J	-28608582.70	-28608582.57	-28608582.41	0.0131	0.0105
Saturn	-83039-07-15 10:47 J	-28608376.29	-28608376.05	-28608375.80	0.0279	0.0005
Uranus	-83039-12-24 19:11 J	-28608213.88	-28608213.70	-28608213.49	0.0131	0.0084
Saturn	-83038-07-29 07:25 J	-28607997.43	-28607997.19	-28607996.95	0.0281	0.0097
Uranus	-83038-12-29 02:08 J	-28607844.61	-28607844.41	-28607844.22	0.0131	0.0079
Saturn	-83037-08-11 10:18 J	-28607618.25	-28607618.07	-28607617.89	0.0284	0.0203
Uranus	-83037-12-31 22:32 J	-28607475.77	-28607475.56	-28607475.33	0.0132	0.0068
Uranus	-83035-01-05 05:30 J	-28607106.49	-28607106.27	-28607106.04	0.0132	0.0052
Jupiter	-83035-09-23 04:04 J	-28606845.53	-28606845.33	-28606845.11	0.0500	0.0247
Uranus	-83034-01-09 02:23 J	-28606737.64	-28606737.40	-28606737.17	0.0132	0.0049
Uranus	-83033-01-13 09:20 J	-28606368.35	-28606368.11	-28606367.87	0.0132	0.0025
Uranus	-83032-01-16 05:59 J	-28605999.50	-28605999.25	-28605999.00	0.0133	0.0026
Uranus	-83031-01-20 13:25 J	-28605630.18	-28605629.94	-28605629.69	0.0133	0.0003
Uranus	-83030-01-24 10:47 J	-28605261.31	-28605261.05	-28605260.80	0.0133	0.0002
Uranus	-83029-01-28 18:42 J	-28604891.96	-28604891.72	-28604891.48	0.0134	0.0019
Jupiter	-83029-03-17 17:44 J	-28604842.87	-28604842.76	-28604842.64	0.0529	0.0457
Uranus	-83028-01-31 16:18 J	-28604523.06	-28604522.82	-28604522.57	0.0134	0.0032

Saturn -83028-12-19 10:04 J -28604201.18 -28604201.08 -28604200.96 0.0288 0.0253
 Uranus -83027-02-05 01:11 J -28604153.67 -28604153.45 -28604153.21 0.0135 0.0040
 Saturn -83026-01-01 22:04 J -28603822.77 -28603822.58 -28603822.37 0.0285 0.0150
 Uranus -83026-02-08 23:44 J -28603784.72 -28603784.51 -28603784.27 0.0135 0.0064
 Saturn -83025-01-15 02:23 J -28603444.63 -28603444.40 -28603444.16 0.0282 0.0041
 Uranus -83025-02-13 10:04 J -28603415.29 -28603415.08 -28603414.86 0.0136 0.0063
 Saturn -83024-01-26 17:01 J -28603067.02 -28603066.79 -28603066.55 0.0280 0.0069
 Uranus -83024-02-16 10:04 J -28603046.26 -28603046.08 -28603045.88 0.0137 0.0089
 Saturn -83023-02-07 18:13 J -28602689.91 -28602689.74 -28602689.53 0.0277 0.0174
 Uranus -83023-02-20 21:06 J -28602676.78 -28602676.62 -28602676.42 0.0137 0.0089
 Jupiter -83023-09-27 15:49 J -28602458.08 -28602457.84 -28602457.59 0.0501 0.0011
 Saturn -83022-02-19 15:06 J -28602312.92 -28602312.87 -28602312.79 0.0274 0.0262
 Uranus -83022-02-24 22:47 J -28602307.68 -28602307.55 -28602307.38 0.0138 0.0109
 Uranus -83021-02-29 11:30 J -28601938.14 -28601938.02 -28601937.89 0.0138 0.0119
 Uranus -83020-03-04 14:52 J -28601568.97 -28601568.88 -28601568.76 0.0139 0.0126
 Jupiter -83017-03-22 08:23 J -28600455.35 -28600455.15 -28600454.95 0.0528 0.0219
 Saturn -83012-06-13 20:52 J -28598545.77 -28598545.63 -28598545.46 0.0272 0.0211
 Saturn -83011-06-26 13:54 J -28598168.14 -28598167.92 -28598167.69 0.0275 0.0130
 Jupiter -83011-10-02 16:18 J -28598070.04 -28598069.82 -28598069.61 0.0503 0.0200
 Saturn -83010-07-09 14:52 J -28597790.13 -28597789.88 -28597789.62 0.0277 0.0043
 Saturn -83009-07-22 05:44 J -28597411.50 -28597411.26 -28597411.01 0.0280 0.0056
 Saturn -83008-08-05 09:20 J -28597032.31 -28597032.11 -28597031.91 0.0283 0.0161
 Saturn -83007-08-19 21:06 J -28596652.70 -28596652.62 -28596652.51 0.0286 0.0264
 Jupiter -83005-03-27 09:20 J -28596067.34 -28596067.11 -28596066.88 0.0526 0.0035
 Uranus -83001-05-30 04:18 J -28594542.34 -28594542.32 -28594542.26 0.0148 0.0146

83RD MILLENNIUM BCE

This is a list of transits of Moon in the 83rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-83000-06-04 16:47 J		-28594171.83	-28594171.80	-28594171.74	0.0148	0.0145	
Uranus	-82999-06-09 18:13 J		-28593801.85	-28593801.74	-28593801.59	0.0148	0.0127	
Jupiter	-82999-10-07 08:37 J		-28593682.22	-28593682.14	-28593682.03	0.0505	0.0463	
Uranus	-82998-06-15 05:44 J		-28593431.43	-28593431.26	-28593431.09	0.0148	0.0107	
Mars	-82998-12-25 07:25 J		-28593238.34	-28593238.19	-28593238.04	0.1956	0.1461	
Saturn	-82998-12-27 08:37 J		-28593236.31	-28593236.14	-28593235.95	0.0286	0.0199	
Uranus	-82997-06-19 11:01 J		-28593061.21	-28593061.04	-28593060.83	0.0148	0.0105	
Saturn	-82996-01-08 08:37 J		-28592858.37	-28592858.14	-28592857.90	0.0283	0.0092	
Uranus	-82996-06-24 19:40 J		-28592690.88	-28592690.68	-28592690.46	0.0148	0.0076	
Saturn	-82995-01-21 02:52 J		-28592480.62	-28592480.38	-28592480.15	0.0280	0.0020	
Uranus	-82995-06-30 05:44 J		-28592320.49	-28592320.26	-28592320.02	0.0147	0.0066	
Saturn	-82994-02-02 16:04 J		-28592103.03	-28592102.83	-28592102.62	0.0277	0.0129	
Uranus	-82994-07-05 10:47 J		-28591950.28	-28591950.05	-28591949.81	0.0147	0.0050	
Saturn	-82993-02-14 19:40 J		-28591725.81	-28591725.68	-28591725.53	0.0275	0.0224	
Jupiter	-82993-03-31 20:52 J		-28591679.80	-28591679.63	-28591679.46	0.0523	0.0339	
Uranus	-82993-07-10 00:13 J		-28591579.74	-28591579.49	-28591579.22	0.0146	0.0023	
Neptune	-82992-03-26 19:11 J		-28591319.79	-28591319.70	-28591319.55	0.0089	0.0079	
Uranus	-82992-07-15 02:37 J		-28591209.65	-28591209.39	-28591209.14	0.0146	0.0019	
Neptune	-82991-03-29 07:54 J		-28590952.32	-28590952.17	-28590951.99	0.0089	0.0065	
Uranus	-82991-07-20 17:16 J		-28590839.04	-28590838.78	-28590838.52	0.0146	0.0010	
Neptune	-82990-03-31 11:59 J		-28590585.23	-28590585.00	-28590584.76	0.0089	0.0033	
Uranus	-82990-07-25 17:30 J		-28590469.02	-28590468.77	-28590468.51	0.0145	0.0022	

Pluto -82989-01-20 15:06 J -28590290.05 -28590289.87 -28590289.65 0.0078 0.0048
 Neptune -82989-04-02 03:35 J -28590217.58 -28590217.35 -28590217.10 0.0089 0.0020
 Mars -82989-06-14 07:40 J -28590144.37 -28590144.18 -28590143.99 0.1581 0.0052
 Uranus -82989-07-30 07:40 J -28590098.42 -28590098.18 -28590097.93 0.0144 0.0035
 Neptune -82988-04-04 05:59 J -28589850.48 -28589850.25 -28589849.99 0.0089 0.0012
 Uranus -82988-08-04 07:25 J -28589728.42 -28589728.19 -28589727.94 0.0144 0.0064
 Neptune -82987-04-06 21:35 J -28589482.83 -28589482.60 -28589482.34 0.0089 0.0025
 Uranus -82987-08-09 18:56 J -28589357.93 -28589357.71 -28589357.48 0.0143 0.0067
 Neptune -82986-04-09 02:23 J -28589115.58 -28589115.40 -28589115.20 0.0089 0.0056
 Uranus -82986-08-14 19:25 J -28588987.88 -28588987.69 -28588987.47 0.0143 0.0092
 Neptune -82985-04-10 14:08 J -28588748.05 -28588747.91 -28588747.73 0.0089 0.0070
 Uranus -82985-08-19 02:23 J -28588617.55 -28588617.40 -28588617.21 0.0142 0.0104
 Uranus -82984-08-24 04:18 J -28588247.47 -28588247.32 -28588247.13 0.0141 0.0110
 Saturn -82983-06-08 00:56 J -28587959.57 -28587959.46 -28587959.36 0.0271 0.0245
 Uranus -82983-08-29 05:59 J -28587877.30 -28587877.25 -28587877.17 0.0141 0.0136
 Saturn -82982-06-20 18:56 J -28587581.89 -28587581.71 -28587581.51 0.0274 0.0171
 Uranus -82982-09-03 08:37 J -28587507.19 -28587507.14 -28587507.04 0.0140 0.0134
 Saturn -82981-07-02 23:01 J -28587203.77 -28587203.54 -28587203.30 0.0276 0.0085
 Saturn -82980-07-16 09:20 J -28586825.37 -28586825.11 -28586824.86 0.0279 0.0010
 Saturn -82979-07-30 01:25 J -28586446.67 -28586446.44 -28586446.19 0.0282 0.0111
 Saturn -82978-08-13 04:32 J -28586067.47 -28586067.31 -28586067.13 0.0284 0.0215
 Saturn -82969-12-20 14:37 J -28582650.01 -28582649.89 -28582649.76 0.0288 0.0241
 Saturn -82967-01-03 04:04 J -28582271.53 -28582271.33 -28582271.12 0.0285 0.0136
 Saturn -82966-01-16 04:18 J -28581893.56 -28581893.32 -28581893.08 0.0282 0.0025
 Saturn -82965-01-28 13:40 J -28581516.16 -28581515.93 -28581515.69 0.0280 0.0089
 Saturn -82964-02-08 16:47 J -28581138.96 -28581138.80 -28581138.61 0.0277 0.0191
 Saturn -82963-02-20 19:11 J -28580761.71 -28580761.70 -28580761.67 0.0274 0.0273
 Uranus -82958-12-14 08:37 J -28578639.24 -28578639.14 -28578638.99 0.0131 0.0112
 Uranus -82957-12-17 05:44 J -28578270.36 -28578270.26 -28578270.12 0.0131 0.0115
 Uranus -82956-12-21 13:40 J -28577901.10 -28577900.93 -28577900.74 0.0131 0.0092

Uranus	-82955-12-25 09:49 J	-28577532.25	-28577532.09	-28577531.88	0.0131	0.0091
Uranus	-82954-12-29 17:16 J	-28577162.97	-28577162.78	-28577162.56	0.0131	0.0074
Saturn	-82953-06-14 16:18 J	-28576994.99	-28576994.82	-28576994.65	0.0272	0.0201
Uranus	-82952-01-01 13:25 J	-28576794.16	-28576793.94	-28576793.71	0.0132	0.0063
Saturn	-82952-06-27 08:08 J	-28576617.38	-28576617.16	-28576616.93	0.0275	0.0122
Jupiter	-82952-09-22 03:06 J	-28576530.57	-28576530.37	-28576530.16	0.0499	0.0265
Uranus	-82951-01-05 20:37 J	-28576424.86	-28576424.64	-28576424.42	0.0132	0.0056
Saturn	-82951-07-10 14:08 J	-28576239.16	-28576238.91	-28576238.67	0.0277	0.0030
Uranus	-82950-01-09 16:18 J	-28576056.06	-28576055.82	-28576055.57	0.0132	0.0035
Saturn	-82950-07-24 09:20 J	-28575860.34	-28575860.11	-28575859.87	0.0280	0.0069
Uranus	-82949-01-13 23:44 J	-28575686.74	-28575686.51	-28575686.27	0.0132	0.0035
Saturn	-82949-08-06 12:56 J	-28575481.16	-28575480.96	-28575480.76	0.0283	0.0172
Uranus	-82948-01-16 19:54 J	-28575317.92	-28575317.67	-28575317.41	0.0133	0.0008
Saturn	-82948-08-20 22:04 J	-28575101.65	-28575101.58	-28575101.51	0.0286	0.0274
Uranus	-82947-01-21 04:18 J	-28574948.57	-28574948.32	-28574948.08	0.0133	0.0008
Uranus	-82946-01-25 00:56 J	-28574579.71	-28574579.46	-28574579.21	0.0133	0.0015
Jupiter	-82946-03-17 23:30 J	-28574527.61	-28574527.52	-28574527.43	0.0530	0.0483
Uranus	-82945-01-29 09:35 J	-28574210.33	-28574210.10	-28574209.85	0.0134	0.0022
Uranus	-82944-02-01 06:56 J	-28573841.46	-28573841.21	-28573840.97	0.0134	0.0035
Uranus	-82943-02-05 16:04 J	-28573472.04	-28573471.83	-28573471.59	0.0135	0.0054
Uranus	-82942-02-09 13:54 J	-28573103.13	-28573102.92	-28573102.67	0.0135	0.0058
Mars	-82942-06-09 18:42 J	-28572982.83	-28572982.72	-28572982.60	0.1579	0.1260
Uranus	-82941-02-14 00:13 J	-28572733.66	-28572733.49	-28572733.28	0.0136	0.0083
Uranus	-82940-02-16 23:44 J	-28572364.71	-28572364.51	-28572364.30	0.0137	0.0081
Jupiter	-82940-09-27 05:16 J	-28572142.52	-28572142.28	-28572142.05	0.0501	0.0036
Saturn	-82940-12-14 18:42 J	-28572063.75	-28572063.72	-28572063.67	0.0288	0.0285
Uranus	-82939-02-21 11:16 J	-28571995.17	-28571995.03	-28571994.86	0.0137	0.0105
Saturn	-82939-12-28 05:44 J	-28571685.44	-28571685.26	-28571685.07	0.0286	0.0186
Uranus	-82938-02-25 12:13 J	-28571626.13	-28571625.99	-28571625.82	0.0138	0.0109
Saturn	-82937-01-10 09:49 J	-28571307.32	-28571307.09	-28571306.86	0.0283	0.0077

Uranus	-82937-03-01 01:54 J	-28571256.52	-28571256.42	-28571256.31	0.0138	0.0124
Saturn	-82936-01-22 08:08 J	-28570929.39	-28570929.16	-28570928.93	0.0280	0.0038
Uranus	-82936-03-05 05:01 J	-28570887.29	-28570887.29	-28570887.27	0.0139	0.0139
Saturn	-82935-02-03 19:25 J	-28570551.89	-28570551.69	-28570551.48	0.0277	0.0146
Saturn	-82934-02-15 17:01 J	-28570174.91	-28570174.79	-28570174.66	0.0275	0.0236
Jupiter	-82934-03-23 01:54 J	-28570139.62	-28570139.42	-28570139.21	0.0528	0.0236
Jupiter	-82928-10-01 20:23 J	-28567754.88	-28567754.65	-28567754.41	0.0503	0.0179
Saturn	-82924-06-09 02:23 J	-28566408.52	-28566408.40	-28566408.29	0.0271	0.0236
Saturn	-82923-06-21 20:52 J	-28566030.81	-28566030.63	-28566030.42	0.0274	0.0162
Jupiter	-82922-03-27 12:56 J	-28565752.19	-28565751.96	-28565751.73	0.0526	0.0018
Saturn	-82922-07-04 20:37 J	-28565652.89	-28565652.64	-28565652.40	0.0276	0.0074
Saturn	-82921-07-17 02:37 J	-28565274.65	-28565274.39	-28565274.13	0.0279	0.0020
Saturn	-82920-07-30 21:06 J	-28564895.85	-28564895.62	-28564895.40	0.0282	0.0123
Saturn	-82919-08-14 04:18 J	-28564516.45	-28564516.32	-28564516.17	0.0284	0.0229
Uranus	-82916-06-05 07:54 J	-28563490.25	-28563490.17	-28563490.06	0.0148	0.0136
Jupiter	-82916-10-06 18:42 J	-28563366.81	-28563366.72	-28563366.63	0.0505	0.0462
Uranus	-82915-06-10 09:20 J	-28563120.24	-28563120.11	-28563119.96	0.0148	0.0124
Uranus	-82914-06-15 21:06 J	-28562749.75	-28562749.62	-28562749.45	0.0148	0.0116
Uranus	-82913-06-20 02:08 J	-28562379.61	-28562379.41	-28562379.18	0.0148	0.0087
Uranus	-82912-06-25 11:30 J	-28562009.21	-28562009.02	-28562008.81	0.0148	0.0085
Uranus	-82911-06-30 20:08 J	-28561638.89	-28561638.66	-28561638.40	0.0147	0.0059
Jupiter	-82910-04-01 07:25 J	-28561364.37	-28561364.19	-28561364.01	0.0524	0.0317
Mars	-82910-06-17 11:30 J	-28561287.18	-28561287.02	-28561286.85	0.1582	0.0908
Uranus	-82910-07-06 02:08 J	-28561268.64	-28561268.41	-28561268.16	0.0147	0.0040
Neptune	-82910-09-30 08:52 J	-28561182.26	-28561182.13	-28561181.97	0.0088	0.0073
Saturn	-82910-12-22 18:28 J	-28561098.86	-28561098.73	-28561098.58	0.0288	0.0229
Uranus	-82909-07-10 14:52 J	-28560898.14	-28560897.88	-28560897.62	0.0146	0.0031
Neptune	-82909-10-01 22:04 J	-28560814.78	-28560814.58	-28560814.36	0.0088	0.0058
Saturn	-82908-01-04 04:32 J	-28560720.54	-28560720.31	-28560720.09	0.0285	0.0122
Uranus	-82908-07-15 17:30 J	-28560528.02	-28560527.77	-28560527.51	0.0146	0.0002

Neptune -82908-10-04 14:52 J -28560447.11 -28560446.88 -28560446.62 0.0088 0.0026
 Saturn -82907-01-16 23:59 J -28560342.75 -28560342.50 -28560342.25 0.0283 0.0008
 Uranus -82907-07-21 08:23 J -28560157.41 -28560157.15 -28560156.89 0.0146 0.0006
 Neptune -82907-10-07 00:13 J -28560079.75 -28560079.49 -28560079.21 0.0088 0.0012
 Saturn -82906-01-29 11:30 J -28559965.24 -28559965.02 -28559964.80 0.0280 0.0107
 Uranus -82906-07-26 08:52 J -28559787.38 -28559787.13 -28559786.87 0.0145 0.0028
 Neptune -82906-10-09 20:52 J -28559711.88 -28559711.63 -28559711.37 0.0088 0.0020
 Saturn -82905-02-10 20:08 J -28559587.80 -28559587.66 -28559587.50 0.0277 0.0206
 Uranus -82905-07-30 23:30 J -28559416.76 -28559416.52 -28559416.27 0.0145 0.0051
 Neptune -82905-10-11 03:35 J -28559344.58 -28559344.35 -28559344.09 0.0088 0.0035
 Uranus -82904-08-04 23:01 J -28559046.78 -28559046.54 -28559046.29 0.0144 0.0056
 Neptune -82904-10-14 00:56 J -28558976.63 -28558976.46 -28558976.28 0.0088 0.0067
 Uranus -82903-08-10 10:47 J -28558676.25 -28558676.05 -28558675.84 0.0143 0.0087
 Neptune -82903-10-16 08:08 J -28558609.23 -28558609.16 -28558609.03 0.0088 0.0081
 Uranus -82902-08-15 10:32 J -28558306.26 -28558306.06 -28558305.85 0.0143 0.0091
 Uranus -82901-08-19 17:59 J -28557935.90 -28557935.75 -28557935.57 0.0142 0.0108
 Uranus -82900-08-24 18:28 J -28557565.84 -28557565.73 -28557565.60 0.0141 0.0127
 Uranus -82899-08-29 21:06 J -28557195.71 -28557195.62 -28557195.51 0.0141 0.0128
 Saturn -82895-06-04 04:32 J -28555821.36 -28555821.31 -28555821.25 0.0270 0.0262
 Saturn -82894-06-16 10:47 J -28555444.22 -28555444.05 -28555443.87 0.0272 0.0194
 Saturn -82893-06-28 07:54 J -28555066.38 -28555066.17 -28555065.94 0.0275 0.0113
 Saturn -82892-07-11 17:01 J -28554688.03 -28554687.79 -28554687.55 0.0277 0.0021
 Saturn -82891-07-25 10:18 J -28554309.31 -28554309.07 -28554308.83 0.0280 0.0080
 Saturn -82890-08-08 09:06 J -28553930.31 -28553930.12 -28553929.91 0.0283 0.0186
 Saturn -82881-12-15 15:20 J -28550512.92 -28550512.86 -28550512.78 0.0289 0.0275
 Saturn -82880-12-29 06:28 J -28550134.40 -28550134.23 -28550134.03 0.0286 0.0172
 Saturn -82878-01-11 14:37 J -28549756.12 -28549755.89 -28549755.67 0.0283 0.0060
 Saturn -82877-01-24 10:47 J -28549378.28 -28549378.05 -28549377.81 0.0280 0.0054
 Saturn -82876-02-04 16:04 J -28549001.02 -28549000.83 -28549000.62 0.0277 0.0161
 Saturn -82875-02-16 13:40 J -28548624.02 -28548623.93 -28548623.82 0.0275 0.0250

Uranus	-82875-12-10 15:06 J	-28548326.95	-28548326.87	-28548326.76	0.0131	0.0121
Uranus	-82874-12-14 23:44 J	-28547957.57	-28547957.51	-28547957.41	0.0131	0.0124
Uranus	-82873-12-17 20:08 J	-28547588.82	-28547588.66	-28547588.49	0.0131	0.0099
Uranus	-82872-12-22 04:04 J	-28547219.48	-28547219.33	-28547219.16	0.0131	0.0101
Uranus	-82871-12-25 23:30 J	-28546850.70	-28546850.52	-28546850.30	0.0131	0.0080
Uranus	-82870-12-30 07:25 J	-28546481.38	-28546481.19	-28546480.98	0.0131	0.0074
Jupiter	-82869-09-21 19:11 J	-28546214.89	-28546214.70	-28546214.50	0.0499	0.0279
Uranus	-82868-01-02 02:52 J	-28546112.59	-28546112.38	-28546112.14	0.0131	0.0062
Uranus	-82867-01-06 11:01 J	-28545743.26	-28545743.04	-28545742.80	0.0132	0.0046
Uranus	-82866-01-10 06:28 J	-28545374.46	-28545374.23	-28545373.98	0.0132	0.0043
Uranus	-82865-01-14 14:52 J	-28545005.12	-28545004.88	-28545004.64	0.0132	0.0017
Saturn	-82865-06-10 04:18 J	-28544857.44	-28544857.32	-28544857.17	0.0271	0.0224
Uranus	-82864-01-17 10:18 J	-28544636.32	-28544636.07	-28544635.82	0.0133	0.0018
Saturn	-82864-06-22 17:44 J	-28544479.97	-28544479.76	-28544479.54	0.0273	0.0151
Uranus	-82863-01-21 18:56 J	-28544266.96	-28544266.71	-28544266.47	0.0133	0.0008
Jupiter	-82863-03-17 16:32 J	-28544211.89	-28544211.81	-28544211.73	0.0530	0.0495
Mars	-82863-06-12 01:25 J	-28544125.63	-28544125.44	-28544125.25	0.1579	0.0509
Saturn	-82863-07-05 13:54 J	-28544102.17	-28544101.92	-28544101.67	0.0276	0.0066
Uranus	-82862-01-25 14:37 J	-28543898.14	-28543897.89	-28543897.64	0.0133	0.0010
Saturn	-82862-07-18 23:01 J	-28543723.78	-28543723.54	-28543723.29	0.0279	0.0033
Uranus	-82861-01-29 23:16 J	-28543528.76	-28543528.53	-28543528.28	0.0134	0.0029
Saturn	-82861-07-31 22:32 J	-28543344.77	-28543344.56	-28543344.35	0.0282	0.0138
Uranus	-82860-02-01 19:40 J	-28543159.91	-28543159.68	-28543159.43	0.0134	0.0042
Saturn	-82860-08-15 07:54 J	-28542965.29	-28542965.17	-28542965.04	0.0284	0.0244
Uranus	-82859-02-06 05:30 J	-28542790.49	-28542790.27	-28542790.03	0.0135	0.0051
Uranus	-82858-02-10 03:06 J	-28542421.58	-28542421.37	-28542421.16	0.0135	0.0074
Uranus	-82857-02-14 13:40 J	-28542052.11	-28542051.93	-28542051.71	0.0136	0.0074
Jupiter	-82857-09-26 11:16 J	-28541827.27	-28541827.03	-28541826.78	0.0501	0.0056
Uranus	-82856-02-17 12:42 J	-28541683.13	-28541682.97	-28541682.79	0.0136	0.0100
Uranus	-82855-02-22 01:11 J	-28541313.62	-28541313.45	-28541313.28	0.0137	0.0099

Uranus	-82854-02-26 01:25 J	-28540944.55	-28540944.44	-28540944.31	0.0138	0.0120
Uranus	-82853-03-01 14:37 J	-28540574.95	-28540574.89	-28540574.79	0.0138	0.0130
Uranus	-82852-03-05 17:01 J	-28540205.80	-28540205.79	-28540205.74	0.0139	0.0138
Jupiter	-82851-03-21 22:32 J	-28539824.75	-28539824.56	-28539824.37	0.0528	0.0273
Saturn	-82851-12-23 16:47 J	-28539547.96	-28539547.80	-28539547.63	0.0288	0.0215
Saturn	-82849-01-05 23:01 J	-28539169.77	-28539169.54	-28539169.31	0.0285	0.0105
Saturn	-82848-01-17 20:37 J	-28538791.88	-28538791.64	-28538791.40	0.0283	0.0008
Saturn	-82847-01-30 14:08 J	-28538414.12	-28538413.91	-28538413.71	0.0280	0.0122
Saturn	-82846-02-11 23:16 J	-28538036.67	-28538036.53	-28538036.39	0.0277	0.0220
Jupiter	-82845-10-01 08:23 J	-28537439.36	-28537439.15	-28537438.93	0.0502	0.0169
Jupiter	-82839-03-26 22:18 J	-28535436.79	-28535436.57	-28535436.35	0.0526	0.0014
Saturn	-82836-06-04 23:30 J	-28534270.59	-28534270.52	-28534270.42	0.0270	0.0251
Saturn	-82835-06-17 11:44 J	-28533893.18	-28533893.01	-28533892.82	0.0272	0.0183
Saturn	-82834-06-30 11:59 J	-28533515.22	-28533515.00	-28533514.77	0.0274	0.0105
Uranus	-82833-05-31 04:47 J	-28533179.33	-28533179.30	-28533179.22	0.0148	0.0145
Saturn	-82833-07-12 18:42 J	-28533136.97	-28533136.72	-28533136.46	0.0277	0.0010
Jupiter	-82833-10-06 05:30 J	-28533051.38	-28533051.27	-28533051.15	0.0504	0.0444
Uranus	-82832-06-05 17:59 J	-28532808.79	-28532808.75	-28532808.67	0.0148	0.0143
Saturn	-82832-07-26 06:56 J	-28532758.45	-28532758.21	-28532757.95	0.0280	0.0094
Uranus	-82831-06-10 18:13 J	-28532438.87	-28532438.74	-28532438.58	0.0148	0.0123
Mars	-82831-06-19 20:37 J	-28532429.76	-28532429.64	-28532429.52	0.1583	0.1259
Pluto	-82831-07-16 08:23 J	-28532403.22	-28532403.15	-28532403.00	0.0066	0.0061
Saturn	-82831-08-09 04:18 J	-28532379.49	-28532379.32	-28532379.13	0.0283	0.0201
Uranus	-82830-06-16 06:56 J	-28532068.36	-28532068.21	-28532068.01	0.0148	0.0104
Pluto	-82830-07-17 23:44 J	-28532036.67	-28532036.51	-28532036.29	0.0067	0.0044
Uranus	-82829-06-20 10:47 J	-28531698.23	-28531698.05	-28531697.84	0.0148	0.0100
Uranus	-82828-06-25 21:35 J	-28531327.80	-28531327.60	-28531327.37	0.0148	0.0070
Neptune	-82827-03-28 09:20 J	-28531052.24	-28531052.11	-28531051.96	0.0089	0.0073
Jupiter	-82827-03-31 11:16 J	-28531049.21	-28531049.03	-28531048.83	0.0525	0.0303
Uranus	-82827-07-01 05:44 J	-28530957.49	-28530957.26	-28530957.01	0.0147	0.0060

Neptune -82826-03-31 01:25 J -28530684.65 -28530684.44 -28530684.23 0.0089 0.0049
 Uranus -82826-07-06 13:25 J -28530587.17 -28530586.94 -28530586.69 0.0147 0.0042
 Neptune -82825-04-01 04:04 J -28530317.56 -28530317.33 -28530317.10 0.0089 0.0029
 Uranus -82825-07-11 01:25 J -28530216.71 -28530216.44 -28530216.18 0.0147 0.0014
 Neptune -82824-04-03 18:42 J -28529949.97 -28529949.72 -28529949.46 0.0089 0.0005
 Uranus -82824-07-16 05:16 J -28529846.53 -28529846.28 -28529846.03 0.0146 0.0010
 Neptune -82823-04-05 23:44 J -28529582.75 -28529582.51 -28529582.27 0.0089 0.0016
 Uranus -82823-07-21 19:25 J -28529475.95 -28529475.69 -28529475.43 0.0146 0.0020
 Neptune -82822-04-08 09:49 J -28529215.30 -28529215.09 -28529214.83 0.0089 0.0041
 Uranus -82822-07-26 20:08 J -28529105.91 -28529105.66 -28529105.40 0.0145 0.0033
 Saturn -82822-12-17 16:47 J -28528961.88 -28528961.80 -28528961.69 0.0289 0.0262
 Neptune -82821-04-09 20:37 J -28528847.80 -28528847.64 -28528847.45 0.0089 0.0061
 Uranus -82821-07-31 10:18 J -28528735.30 -28528735.07 -28528734.81 0.0145 0.0047
 Saturn -82821-12-30 11:30 J -28528583.22 -28528583.02 -28528582.83 0.0286 0.0156
 Neptune -82820-04-12 02:23 J -28528480.45 -28528480.40 -28528480.29 0.0089 0.0085
 Uranus -82820-08-05 09:35 J -28528365.31 -28528365.10 -28528364.87 0.0144 0.0076
 Saturn -82819-01-12 17:16 J -28528205.01 -28528204.78 -28528204.54 0.0283 0.0045
 Uranus -82819-08-10 22:04 J -28527994.78 -28527994.58 -28527994.35 0.0143 0.0079
 Saturn -82818-01-25 08:08 J -28527827.40 -28527827.16 -28527826.91 0.0280 0.0070
 Uranus -82818-08-15 21:35 J -28527624.78 -28527624.60 -28527624.41 0.0143 0.0104
 Saturn -82817-02-06 12:56 J -28527450.14 -28527449.96 -28527449.77 0.0277 0.0178
 Uranus -82817-08-20 06:13 J -28527254.37 -28527254.24 -28527254.08 0.0142 0.0116
 Saturn -82816-02-17 16:04 J -28527072.89 -28527072.83 -28527072.75 0.0275 0.0261
 Uranus -82816-08-25 05:59 J -28526884.36 -28526884.25 -28526884.10 0.0142 0.0123
 Saturn -82806-06-12 03:49 J -28523306.50 -28523306.34 -28523306.19 0.0271 0.0213
 Saturn -82805-06-23 13:25 J -28522929.15 -28522928.94 -28522928.72 0.0273 0.0143
 Saturn -82804-07-06 12:56 J -28522551.19 -28522550.96 -28522550.71 0.0276 0.0056
 Saturn -82803-07-20 02:37 J -28522172.63 -28522172.39 -28522172.15 0.0279 0.0045
 Saturn -82802-08-03 02:08 J -28521793.61 -28521793.41 -28521793.19 0.0282 0.0152
 Saturn -82801-08-16 08:08 J -28521414.26 -28521414.16 -28521414.05 0.0284 0.0257

Mars -82793-12-19 11:59 J -28518367.19 -28518367.00 -28518366.81 0.1961 0.0204
 Saturn -82792-12-24 11:16 J -28517997.20 -28517997.03 -28517996.84 0.0288 0.0201
 Uranus -82791-12-11 04:47 J -28517645.31 -28517645.30 -28517645.27 0.0131 0.0130
 Saturn -82790-01-06 20:08 J -28517618.88 -28517618.66 -28517618.43 0.0286 0.0090
 Uranus -82790-12-15 13:54 J -28517276.04 -28517275.92 -28517275.77 0.0131 0.0109
 Saturn -82789-01-19 22:47 J -28517240.78 -28517240.55 -28517240.32 0.0283 0.0026
 Uranus -82789-12-18 10:04 J -28516907.21 -28516907.08 -28516906.94 0.0131 0.0111
 Saturn -82788-01-31 16:47 J -28516863.00 -28516862.80 -28516862.59 0.0280 0.0138
 Uranus -82788-12-22 18:42 J -28516537.89 -28516537.72 -28516537.52 0.0131 0.0087
 Saturn -82787-02-12 20:08 J -28516485.78 -28516485.66 -28516485.51 0.0277 0.0231
 Uranus -82787-12-26 14:23 J -28516169.09 -28516168.90 -28516168.71 0.0131 0.0086
 Jupiter -82786-09-22 01:40 J -28515899.63 -28515899.43 -28515899.22 0.0499 0.0289
 Uranus -82786-12-30 22:18 J -28515799.77 -28515799.57 -28515799.34 0.0131 0.0068
 Uranus -82784-01-02 17:16 J -28515431.00 -28515430.78 -28515430.54 0.0131 0.0058
 Mars -82784-06-14 05:01 J -28515268.47 -28515268.29 -28515268.10 0.1580 0.0104
 Uranus -82783-01-07 01:40 J -28515061.65 -28515061.43 -28515061.20 0.0132 0.0050
 Uranus -82782-01-10 20:37 J -28514692.88 -28514692.64 -28514692.39 0.0132 0.0028
 Uranus -82781-01-15 04:47 J -28514323.53 -28514323.30 -28514323.05 0.0132 0.0027
 Uranus -82780-01-18 00:13 J -28513954.74 -28513954.49 -28513954.24 0.0133 0.0001
 Uranus -82779-01-22 09:06 J -28513585.37 -28513585.12 -28513584.87 0.0133 0.0001
 Uranus -82778-01-26 04:32 J -28513216.56 -28513216.31 -28513216.06 0.0133 0.0024
 Uranus -82777-01-30 13:40 J -28512847.16 -28512846.93 -28512846.68 0.0134 0.0031
 Saturn -82777-06-06 01:25 J -28512719.53 -28512719.44 -28512719.32 0.0270 0.0243
 Uranus -82776-02-02 09:35 J -28512478.32 -28512478.10 -28512477.85 0.0134 0.0045
 Saturn -82776-06-18 17:16 J -28512341.97 -28512341.78 -28512341.60 0.0272 0.0173
 Uranus -82775-02-06 19:40 J -28512108.89 -28512108.68 -28512108.45 0.0135 0.0064
 Saturn -82775-07-01 13:54 J -28511964.16 -28511963.92 -28511963.68 0.0274 0.0093
 Uranus -82774-02-10 16:47 J -28511740.01 -28511739.80 -28511739.58 0.0135 0.0067
 Saturn -82774-07-14 16:04 J -28511586.09 -28511585.83 -28511585.57 0.0277 0.0005
 Jupiter -82774-09-26 19:25 J -28511511.92 -28511511.69 -28511511.46 0.0500 0.0083

Uranus -82773-02-15 03:49 J -28511370.52 -28511370.34 -28511370.17 0.0136 0.0093
 Saturn -82773-07-27 04:18 J -28511207.54 -28511207.32 -28511207.07 0.0280 0.0106
 Uranus -82772-02-18 01:40 J -28511001.60 -28511001.43 -28511001.23 0.0136 0.0091
 Saturn -82772-08-10 06:28 J -28510828.39 -28510828.23 -28510828.07 0.0283 0.0214
 Uranus -82771-02-22 14:08 J -28510632.02 -28510631.91 -28510631.77 0.0137 0.0116
 Uranus -82770-02-26 13:54 J -28510263.02 -28510262.92 -28510262.78 0.0137 0.0120
 Uranus -82769-03-02 04:18 J -28509893.35 -28509893.32 -28509893.26 0.0138 0.0135
 Jupiter -82768-03-21 12:56 J -28509509.13 -28509508.96 -28509508.77 0.0529 0.0303
 Saturn -82763-12-18 22:47 J -28507410.66 -28507410.55 -28507410.42 0.0289 0.0249
 Jupiter -82762-10-01 17:01 J -28507124.03 -28507123.79 -28507123.55 0.0502 0.0144
 Saturn -82761-01-01 14:23 J -28507032.11 -28507031.90 -28507031.68 0.0286 0.0140
 Saturn -82760-01-13 15:20 J -28506654.11 -28506653.86 -28506653.61 0.0283 0.0025
 Saturn -82759-01-26 05:30 J -28506276.49 -28506276.27 -28506276.03 0.0280 0.0089
 Saturn -82758-02-07 16:04 J -28505898.98 -28505898.83 -28505898.65 0.0277 0.0191
 Saturn -82757-02-19 21:35 J -28505521.63 -28505521.60 -28505521.55 0.0275 0.0271
 Jupiter -82756-03-26 03:35 J -28505121.58 -28505121.35 -28505121.11 0.0527 0.0025
 Jupiter -82750-10-06 06:28 J -28502736.35 -28502736.23 -28502736.11 0.0504 0.0428
 Uranus -82748-06-06 05:44 J -28502127.36 -28502127.26 -28502127.14 0.0148 0.0132
 Uranus -82747-06-11 05:44 J -28501757.39 -28501757.26 -28501757.11 0.0148 0.0122
 Saturn -82747-06-13 01:11 J -28501755.60 -28501755.45 -28501755.27 0.0271 0.0204
 Uranus -82746-06-16 19:11 J -28501386.85 -28501386.70 -28501386.52 0.0148 0.0112
 Saturn -82746-06-25 15:49 J -28501378.05 -28501377.84 -28501377.62 0.0273 0.0130
 Neptune -82746-09-29 07:40 J -28501282.19 -28501282.18 -28501282.11 0.0088 0.0088
 Uranus -82745-06-20 21:49 J -28501016.79 -28501016.59 -28501016.36 0.0148 0.0083
 Saturn -82745-07-07 20:08 J -28500999.89 -28500999.66 -28500999.42 0.0276 0.0042
 Neptune -82745-10-01 02:52 J -28500914.53 -28500914.38 -28500914.19 0.0088 0.0068
 Pluto -82744-01-20 08:08 J -28500803.30 -28500803.16 -28500802.99 0.0079 0.0063
 Jupiter -82744-03-31 00:13 J -28500733.67 -28500733.49 -28500733.31 0.0525 0.0295
 Uranus -82744-06-26 09:49 J -28500646.29 -28500646.09 -28500645.87 0.0148 0.0080
 Saturn -82744-07-21 09:06 J -28500621.36 -28500621.12 -28500620.87 0.0279 0.0058

Neptune -82744-10-03 10:47 J -28500547.26 -28500547.05 -28500546.79 0.0088 0.0043
 Uranus -82743-07-01 16:04 J -28500276.06 -28500275.83 -28500275.56 0.0147 0.0052
 Saturn -82743-08-04 04:32 J -28500242.52 -28500242.31 -28500242.10 0.0282 0.0166
 Neptune -82743-10-06 08:23 J -28500179.40 -28500179.15 -28500178.88 0.0088 0.0020
 Uranus -82742-07-07 01:11 J -28499905.69 -28499905.45 -28499905.20 0.0147 0.0033
 Saturn -82742-08-18 06:28 J -28499863.28 -28499863.23 -28499863.14 0.0284 0.0273
 Neptune -82742-10-08 15:20 J -28499812.12 -28499811.86 -28499811.59 0.0088 0.0004
 Uranus -82741-07-11 11:44 J -28499535.27 -28499535.01 -28499534.74 0.0147 0.0023
 Neptune -82741-10-10 11:44 J -28499444.26 -28499444.01 -28499443.74 0.0088 0.0027
 Uranus -82740-07-16 16:32 J -28499165.06 -28499164.81 -28499164.55 0.0146 0.0010
 Neptune -82740-10-12 20:08 J -28499076.86 -28499076.66 -28499076.43 0.0088 0.0049
 Uranus -82739-07-22 06:13 J -28498794.50 -28498794.24 -28498793.97 0.0146 0.0015
 Neptune -82739-10-15 12:56 J -28498709.09 -28498708.96 -28498708.77 0.0088 0.0073
 Uranus -82738-07-27 07:54 J -28498424.41 -28498424.17 -28498423.92 0.0145 0.0039
 Mars -82737-06-08 11:59 J -28498107.12 -28498107.00 -28498106.88 0.1579 0.1145
 Uranus -82737-07-31 22:04 J -28498053.80 -28498053.58 -28498053.33 0.0145 0.0062
 Uranus -82736-08-05 21:35 J -28497683.83 -28497683.60 -28497683.36 0.0144 0.0068
 Uranus -82735-08-11 10:18 J -28497313.24 -28497313.07 -28497312.87 0.0144 0.0099
 Uranus -82734-08-16 08:37 J -28496943.31 -28496943.14 -28496942.94 0.0143 0.0102
 Uranus -82733-08-20 18:13 J -28496572.86 -28496572.74 -28496572.59 0.0142 0.0121
 Saturn -82733-12-25 11:01 J -28496446.21 -28496446.04 -28496445.86 0.0288 0.0189
 Uranus -82732-08-25 16:32 J -28496202.84 -28496202.81 -28496202.73 0.0142 0.0139
 Saturn -82731-01-08 00:28 J -28496067.71 -28496067.48 -28496067.26 0.0286 0.0073
 Uranus -82731-08-30 22:32 J -28495832.57 -28495832.56 -28495832.53 0.0141 0.0140
 Saturn -82730-01-21 03:06 J -28495689.60 -28495689.37 -28495689.13 0.0283 0.0043
 Saturn -82729-02-02 15:49 J -28495312.04 -28495311.84 -28495311.63 0.0280 0.0150
 Saturn -82728-02-13 16:04 J -28494934.93 -28494934.83 -28494934.70 0.0277 0.0241
 Saturn -82718-06-08 09:35 J -28491168.22 -28491168.10 -28491167.98 0.0270 0.0233
 Saturn -82717-06-19 21:49 J -28490790.79 -28490790.59 -28490790.39 0.0272 0.0160
 Saturn -82716-07-02 13:25 J -28490413.19 -28490412.94 -28490412.69 0.0274 0.0081

Saturn -82715-07-15 16:18 J -28490035.07 -28490034.82 -28490034.57 0.0277 0.0015
 Saturn -82714-07-29 09:35 J -28489656.31 -28489656.10 -28489655.87 0.0280 0.0121
 Mars -82714-12-23 22:04 J -28489508.73 -28489508.58 -28489508.43 0.1960 0.1192
 Saturn -82713-08-11 14:52 J -28489277.02 -28489276.88 -28489276.74 0.0283 0.0230
 Uranus -82707-12-11 19:25 J -28486963.78 -28486963.69 -28486963.57 0.0131 0.0119
 Uranus -82706-12-16 04:47 J -28486594.37 -28486594.30 -28486594.18 0.0131 0.0121
 Mars -82705-06-16 00:13 J -28486411.65 -28486411.49 -28486411.32 0.1580 0.0562
 Uranus -82705-12-19 00:13 J -28486225.64 -28486225.49 -28486225.30 0.0131 0.0096
 Saturn -82704-12-20 02:37 J -28485859.51 -28485859.39 -28485859.23 0.0289 0.0236
 Uranus -82704-12-23 09:20 J -28485856.26 -28485856.11 -28485855.93 0.0131 0.0097
 Jupiter -82703-09-21 07:54 J -28485584.35 -28485584.17 -28485583.99 0.0498 0.0316
 Uranus -82703-12-27 04:32 J -28485487.51 -28485487.31 -28485487.09 0.0131 0.0074
 Saturn -82702-01-02 13:11 J -28485481.17 -28485480.95 -28485480.72 0.0286 0.0122
 Uranus -82702-12-31 12:56 J -28485118.15 -28485117.96 -28485117.73 0.0131 0.0069
 Saturn -82701-01-15 13:40 J -28485103.18 -28485102.93 -28485102.69 0.0284 0.0007
 Uranus -82700-01-03 08:08 J -28484749.38 -28484749.16 -28484748.93 0.0131 0.0056
 Saturn -82700-01-27 08:52 J -28484725.34 -28484725.13 -28484724.91 0.0281 0.0105
 Uranus -82699-01-07 16:47 J -28484380.03 -28484379.80 -28484379.55 0.0132 0.0040
 Saturn -82699-02-08 22:18 J -28484347.72 -28484347.57 -28484347.40 0.0278 0.0204
 Uranus -82698-01-11 11:44 J -28484011.24 -28484011.01 -28484010.76 0.0132 0.0035
 Uranus -82697-01-15 20:37 J -28483641.89 -28483641.64 -28483641.39 0.0132 0.0009
 Uranus -82696-01-18 15:35 J -28483273.10 -28483272.85 -28483272.60 0.0133 0.0009
 Uranus -82695-01-23 00:13 J -28482903.73 -28482903.49 -28482903.24 0.0133 0.0017
 Uranus -82694-01-26 19:25 J -28482534.93 -28482534.69 -28482534.44 0.0133 0.0019
 Uranus -82693-01-31 04:32 J -28482165.54 -28482165.31 -28482165.07 0.0134 0.0039
 Uranus -82692-02-03 00:13 J -28481796.71 -28481796.49 -28481796.25 0.0134 0.0052
 Uranus -82691-02-07 10:32 J -28481427.27 -28481427.06 -28481426.83 0.0135 0.0061
 Jupiter -82691-09-26 03:49 J -28481196.58 -28481196.34 -28481196.10 0.0500 0.0111
 Uranus -82690-02-11 07:11 J -28481058.38 -28481058.20 -28481058.00 0.0135 0.0084
 Uranus -82689-02-15 18:42 J -28480688.91 -28480688.72 -28480688.52 0.0136 0.0084

Saturn -82689-06-01 23:01 J -28480581.59 -28480581.54 -28480581.47 0.0269 0.0262
 Uranus -82688-02-18 17:01 J -28480319.93 -28480319.79 -28480319.64 0.0136 0.0110
 Saturn -82688-06-14 05:16 J -28480204.44 -28480204.28 -28480204.11 0.0271 0.0194
 Uranus -82687-02-23 05:44 J -28479950.40 -28479950.26 -28479950.11 0.0137 0.0110
 Saturn -82687-06-27 00:42 J -28479826.68 -28479826.47 -28479826.25 0.0273 0.0118
 Uranus -82686-02-27 05:30 J -28479581.33 -28479581.27 -28479581.20 0.0137 0.0132
 Saturn -82686-07-10 04:04 J -28479448.57 -28479448.33 -28479448.07 0.0276 0.0029
 Jupiter -82685-03-20 16:47 J -28479193.98 -28479193.80 -28479193.61 0.0529 0.0327
 Saturn -82685-07-22 12:42 J -28479070.21 -28479069.97 -28479069.71 0.0279 0.0074
 Saturn -82684-08-05 05:30 J -28478691.46 -28478691.27 -28478691.06 0.0282 0.0182
 Jupiter -82679-09-30 18:56 J -28476808.93 -28476808.71 -28476808.48 0.0502 0.0127
 Saturn -82675-12-13 18:42 J -28475273.76 -28475273.72 -28475273.67 0.0290 0.0285
 Saturn -82674-12-27 17:44 J -28474894.93 -28474894.76 -28474894.56 0.0288 0.0174
 Jupiter -82673-03-25 09:20 J -28474806.33 -28474806.11 -28474805.89 0.0527 0.0053
 Saturn -82672-01-09 06:42 J -28474516.46 -28474516.22 -28474515.99 0.0285 0.0055
 Saturn -82671-01-22 04:32 J -28474138.55 -28474138.31 -28474138.07 0.0283 0.0060
 Saturn -82670-02-03 13:54 J -28473761.11 -28473760.92 -28473760.72 0.0280 0.0166
 Saturn -82669-02-15 18:56 J -28473383.80 -28473383.71 -28473383.61 0.0277 0.0252
 Jupiter -82667-10-05 22:32 J -28472420.69 -28472420.56 -28472420.43 0.0504 0.0420
 Uranus -82665-06-01 03:35 J -28471816.41 -28471816.35 -28471816.29 0.0148 0.0143
 Uranus -82664-06-06 16:18 J -28471445.88 -28471445.82 -28471445.74 0.0148 0.0141
 Neptune -82663-03-27 22:32 J -28471151.67 -28471151.56 -28471151.45 0.0089 0.0079
 Uranus -82663-06-11 15:20 J -28471075.99 -28471075.86 -28471075.69 0.0148 0.0120
 Neptune -82662-03-30 01:11 J -28470784.60 -28470784.45 -28470784.28 0.0089 0.0066
 Uranus -82662-06-17 05:44 J -28470705.44 -28470705.26 -28470705.07 0.0148 0.0100
 Jupiter -82661-03-30 01:25 J -28470418.64 -28470418.44 -28470418.23 0.0525 0.0254
 Neptune -82661-03-31 15:20 J -28470417.08 -28470416.86 -28470416.61 0.0089 0.0035
 Uranus -82661-06-21 07:40 J -28470335.38 -28470335.18 -28470334.98 0.0148 0.0095
 Neptune -82660-04-02 22:18 J -28470049.81 -28470049.57 -28470049.34 0.0089 0.0021
 Uranus -82660-06-26 20:52 J -28469964.86 -28469964.63 -28469964.41 0.0147 0.0063

Neptune -82659-04-05 07:54 J -28469682.42 -28469682.17 -28469681.91 0.0089 0.0009
 Saturn -82659-06-09 15:49 J -28469616.98 -28469616.84 -28469616.70 0.0270 0.0223
 Uranus -82659-07-02 02:08 J -28469594.65 -28469594.41 -28469594.15 0.0147 0.0054
 Neptune -82658-04-07 18:56 J -28469314.94 -28469314.71 -28469314.46 0.0089 0.0023
 Mars -82658-06-11 05:16 J -28469250.43 -28469250.28 -28469250.12 0.1578 0.0800
 Saturn -82658-06-21 23:30 J -28469239.73 -28469239.52 -28469239.30 0.0272 0.0151
 Uranus -82658-07-07 12:28 J -28469224.22 -28469223.98 -28469223.73 0.0147 0.0033
 Neptune -82657-04-08 23:44 J -28468947.71 -28468947.51 -28468947.30 0.0089 0.0053
 Saturn -82657-07-03 17:01 J -28468862.03 -28468861.79 -28468861.54 0.0274 0.0069
 Uranus -82657-07-11 21:49 J -28468853.86 -28468853.59 -28468853.32 0.0147 0.0006
 Neptune -82656-04-11 14:52 J -28468580.02 -28468579.88 -28468579.70 0.0089 0.0067
 Saturn -82656-07-17 01:40 J -28468483.67 -28468483.43 -28468483.18 0.0277 0.0031
 Uranus -82656-07-17 03:49 J -28468483.59 -28468483.34 -28468483.09 0.0146 0.0001 *
 Uranus -82655-07-22 16:04 J -28468113.09 -28468112.83 -28468112.57 0.0146 0.0030
 Saturn -82655-07-30 21:35 J -28468104.81 -28468104.60 -28468104.38 0.0280 0.0136
 Uranus -82654-07-27 18:13 J -28467742.99 -28467742.74 -28467742.50 0.0145 0.0043
 Saturn -82654-08-14 00:56 J -28467725.57 -28467725.46 -28467725.31 0.0283 0.0242
 Uranus -82653-08-01 07:54 J -28467372.41 -28467372.17 -28467371.93 0.0145 0.0058
 Uranus -82652-08-06 06:56 J -28467002.41 -28467002.21 -28467002.00 0.0144 0.0087
 Uranus -82651-08-11 19:54 J -28466631.85 -28466631.67 -28466631.45 0.0144 0.0090
 Uranus -82650-08-16 18:28 J -28466261.88 -28466261.73 -28466261.57 0.0143 0.0116
 Jupiter -82649-04-03 14:08 J -28466030.92 -28466030.91 -28466030.88 0.0524 0.0521
 Uranus -82649-08-21 04:47 J -28465891.40 -28465891.30 -28465891.16 0.0142 0.0126
 Uranus -82648-08-26 03:06 J -28465521.44 -28465521.37 -28465521.28 0.0142 0.0135
 Saturn -82645-12-21 04:32 J -28464308.46 -28464308.31 -28464308.14 0.0289 0.0220
 Saturn -82643-01-03 15:06 J -28463930.09 -28463929.87 -28463929.64 0.0286 0.0106
 Saturn -82642-01-16 20:08 J -28463551.90 -28463551.66 -28463551.43 0.0284 0.0013
 Saturn -82641-01-29 17:30 J -28463173.98 -28463173.77 -28463173.56 0.0281 0.0122
 Saturn -82640-02-10 02:52 J -28462796.52 -28462796.38 -28462796.22 0.0278 0.0216
 Saturn -82630-06-04 05:30 J -28459030.34 -28459030.27 -28459030.18 0.0269 0.0253

Saturn	-82629-06-15 17:16 J	-28458652.96	-28458652.78	-28458652.61	0.0271	0.0185
Saturn	-82628-06-28 11:30 J	-28458275.24	-28458275.02	-28458274.78	0.0273	0.0105
Saturn	-82627-07-11 10:18 J	-28457897.32	-28457897.07	-28457896.81	0.0276	0.0013
Mars	-82626-06-18 18:13 J	-28457554.84	-28457554.74	-28457554.65	0.1581	0.1341
Saturn	-82626-07-24 17:16 J	-28457519.02	-28457518.78	-28457518.53	0.0279	0.0091
Saturn	-82625-08-06 13:11 J	-28457140.12	-28457139.95	-28457139.76	0.0282	0.0198
Uranus	-82624-12-08 12:42 J	-28456650.98	-28456650.97	-28456650.93	0.0131	0.0130
Uranus	-82623-12-12 08:52 J	-28456282.16	-28456282.13	-28456282.06	0.0131	0.0129
Uranus	-82622-12-16 18:42 J	-28455912.84	-28455912.72	-28455912.55	0.0131	0.0106
Uranus	-82621-12-19 14:23 J	-28455544.02	-28455543.90	-28455543.74	0.0131	0.0108
Jupiter	-82620-09-20 15:35 J	-28455269.03	-28455268.85	-28455268.66	0.0498	0.0337
Uranus	-82620-12-24 00:13 J	-28455174.68	-28455174.49	-28455174.29	0.0131	0.0082
Uranus	-82619-12-27 18:56 J	-28454805.89	-28454805.71	-28454805.49	0.0131	0.0081
Uranus	-82617-01-01 04:18 J	-28454436.54	-28454436.32	-28454436.10	0.0131	0.0062
Uranus	-82616-01-03 23:01 J	-28454067.76	-28454067.54	-28454067.30	0.0131	0.0052
Saturn	-82616-12-15 05:01 J	-28453722.36	-28453722.29	-28453722.20	0.0290	0.0271
Uranus	-82615-01-08 07:54 J	-28453698.40	-28453698.17	-28453697.93	0.0132	0.0043
Saturn	-82615-12-29 02:37 J	-28453343.59	-28453343.39	-28453343.19	0.0288	0.0160
Uranus	-82614-01-12 02:52 J	-28453329.63	-28453329.38	-28453329.14	0.0132	0.0020
Saturn	-82613-01-11 09:35 J	-28452965.35	-28452965.10	-28452964.85	0.0285	0.0040
Uranus	-82613-01-16 11:16 J	-28452960.27	-28452960.03	-28452959.78	0.0132	0.0018
Uranus	-82612-01-19 06:13 J	-28452591.49	-28452591.24	-28452590.99	0.0133	0.0009
Saturn	-82612-01-23 03:49 J	-28452587.57	-28452587.34	-28452587.10	0.0283	0.0079
Uranus	-82611-01-23 15:06 J	-28452222.11	-28452221.87	-28452221.62	0.0133	0.0010
Saturn	-82611-02-04 16:47 J	-28452209.97	-28452209.80	-28452209.61	0.0280	0.0181
Uranus	-82610-01-27 10:18 J	-28451853.31	-28451853.07	-28451852.83	0.0133	0.0033
Saturn	-82610-02-17 02:37 J	-28451832.46	-28451832.39	-28451832.32	0.0277	0.0261
Uranus	-82609-01-31 19:40 J	-28451483.91	-28451483.68	-28451483.43	0.0134	0.0041
Uranus	-82608-02-03 15:49 J	-28451115.06	-28451114.84	-28451114.61	0.0134	0.0056
Jupiter	-82608-09-25 04:47 J	-28450881.52	-28450881.30	-28450881.07	0.0500	0.0134

Uranus	-82607-02-08 01:54 J	-28450745.61	-28450745.42	-28450745.20	0.0135	0.0075
Uranus	-82606-02-11 22:47 J	-28450376.74	-28450376.55	-28450376.34	0.0135	0.0079
Uranus	-82605-02-16 10:18 J	-28450007.23	-28450007.07	-28450006.91	0.0136	0.0104
Uranus	-82604-02-19 08:08 J	-28449638.31	-28449638.16	-28449637.98	0.0136	0.0103
Uranus	-82603-02-23 20:52 J	-28449268.70	-28449268.63	-28449268.52	0.0137	0.0128
Uranus	-82602-02-27 20:37 J	-28448899.69	-28448899.64	-28448899.56	0.0137	0.0132
Jupiter	-82602-03-20 19:25 J	-28448878.84	-28448878.69	-28448878.54	0.0529	0.0374
Saturn	-82600-06-10 18:42 J	-28448065.86	-28448065.72	-28448065.56	0.0270	0.0215
Saturn	-82599-06-23 04:04 J	-28447688.53	-28447688.33	-28447688.10	0.0272	0.0142
Saturn	-82598-07-06 04:04 J	-28447310.57	-28447310.33	-28447310.09	0.0275	0.0053
Saturn	-82597-07-18 15:20 J	-28446932.10	-28446931.86	-28446931.62	0.0277	0.0046
Saturn	-82596-08-01 09:06 J	-28446553.33	-28446553.12	-28446552.90	0.0280	0.0152
Jupiter	-82596-09-30 04:32 J	-28446493.55	-28446493.31	-28446493.07	0.0501	0.0104
Saturn	-82595-08-15 09:06 J	-28446174.21	-28446174.12	-28446174.00	0.0283	0.0257
Jupiter	-82590-03-25 12:13 J	-28444491.22	-28444490.99	-28444490.76	0.0528	0.0084
Saturn	-82586-12-23 09:49 J	-28442757.25	-28442757.09	-28442756.91	0.0289	0.0206
Pluto	-82585-07-17 10:32 J	-28442550.26	-28442550.06	-28442549.84	0.0066	0.0040
Saturn	-82584-01-05 00:28 J	-28442378.70	-28442378.48	-28442378.26	0.0286	0.0090
Pluto	-82584-07-19 09:06 J	-28442183.16	-28442183.12	-28442183.05	0.0067	0.0065
Jupiter	-82584-10-04 15:06 J	-28442106.02	-28442105.87	-28442105.71	0.0503	0.0390
Saturn	-82583-01-18 07:25 J	-28442000.42	-28442000.19	-28441999.96	0.0283	0.0030
Saturn	-82582-01-31 01:25 J	-28441622.66	-28441622.44	-28441622.23	0.0280	0.0138
Saturn	-82581-02-12 05:16 J	-28441245.41	-28441245.28	-28441245.14	0.0277	0.0227
Neptune	-82581-09-29 22:18 J	-28441014.69	-28441014.57	-28441014.39	0.0088	0.0073
Uranus	-82580-06-07 06:56 J	-28440764.33	-28440764.21	-28440764.09	0.0148	0.0129
Neptune	-82580-10-02 20:08 J	-28440646.84	-28440646.66	-28440646.45	0.0088	0.0059
Uranus	-82579-06-12 05:59 J	-28440394.38	-28440394.25	-28440394.08	0.0148	0.0120
Mars	-82579-06-13 02:08 J	-28440393.60	-28440393.41	-28440393.22	0.1579	0.0118
Neptune	-82579-10-05 03:35 J	-28440279.59	-28440279.35	-28440279.09	0.0088	0.0027
Jupiter	-82578-03-30 03:20 J	-28440103.56	-28440103.36	-28440103.16	0.0526	0.0230

Uranus -82578-06-17 20:37 J -28440023.80 -28440023.64 -28440023.46 0.0148 0.0107
 Neptune -82578-10-07 23:30 J -28439911.79 -28439911.52 -28439911.25 0.0088 0.0013
 Uranus -82577-06-21 21:49 J -28439653.80 -28439653.59 -28439653.36 0.0148 0.0078
 Neptune -82577-10-09 09:35 J -28439544.34 -28439544.10 -28439543.84 0.0088 0.0018
 Uranus -82576-06-27 11:30 J -28439283.23 -28439283.02 -28439282.80 0.0147 0.0074
 Neptune -82576-10-12 01:25 J -28439176.68 -28439176.44 -28439176.17 0.0088 0.0032
 Uranus -82575-07-02 15:49 J -28438913.09 -28438912.84 -28438912.58 0.0147 0.0043
 Neptune -82575-10-14 15:35 J -28438809.00 -28438808.85 -28438808.65 0.0088 0.0065
 Uranus -82574-07-08 02:52 J -28438542.63 -28438542.38 -28438542.13 0.0147 0.0025
 Neptune -82574-10-17 02:23 J -28438441.52 -28438441.40 -28438441.26 0.0088 0.0078
 Uranus -82573-07-12 10:47 J -28438172.32 -28438172.05 -28438171.78 0.0147 0.0013
 Uranus -82572-07-17 17:44 J -28437802.00 -28437801.76 -28437801.51 0.0146 0.0019
 Saturn -82571-06-05 18:13 J -28437478.83 -28437478.74 -28437478.63 0.0270 0.0243
 Uranus -82571-07-23 05:16 J -28437431.54 -28437431.28 -28437431.01 0.0146 0.0025
 Saturn -82570-06-18 05:44 J -28437101.44 -28437101.26 -28437101.06 0.0271 0.0174
 Uranus -82570-07-28 08:08 J -28437061.39 -28437061.16 -28437060.91 0.0145 0.0051
 Saturn -82569-06-29 20:08 J -28436723.90 -28436723.66 -28436723.41 0.0274 0.0090
 Uranus -82569-08-01 21:06 J -28436690.83 -28436690.62 -28436690.37 0.0145 0.0073
 Saturn -82568-07-12 17:44 J -28436346.02 -28436345.76 -28436345.50 0.0276 0.0003
 Uranus -82568-08-06 21:06 J -28436320.83 -28436320.62 -28436320.40 0.0144 0.0079
 Saturn -82567-07-26 05:01 J -28435967.51 -28435967.29 -28435967.05 0.0279 0.0109
 Uranus -82567-08-12 09:49 J -28435950.23 -28435950.09 -28435949.90 0.0144 0.0111
 Jupiter -82566-04-04 02:52 J -28435715.46 -28435715.38 -28435715.30 0.0524 0.0485
 Saturn -82566-08-09 05:44 J -28435588.41 -28435588.26 -28435588.10 0.0282 0.0216
 Uranus -82566-08-17 07:25 J -28435580.33 -28435580.19 -28435580.01 0.0143 0.0113
 Uranus -82565-08-21 18:28 J -28435209.80 -28435209.73 -28435209.62 0.0142 0.0133
 Saturn -82557-12-16 17:59 J -28432170.86 -28432170.75 -28432170.63 0.0290 0.0255
 Saturn -82556-12-30 09:49 J -28431792.30 -28431792.09 -28431791.86 0.0287 0.0143
 Saturn -82554-01-12 13:25 J -28431414.19 -28431413.94 -28431413.69 0.0285 0.0021
 Saturn -82553-01-25 10:47 J -28431036.27 -28431036.05 -28431035.83 0.0282 0.0094

Saturn -82552-02-06 03:06 J -28430658.52 -28430658.37 -28430658.19 0.0279 0.0195
 Saturn -82551-02-18 10:18 J -28430281.09 -28430281.07 -28430281.02 0.0277 0.0273
 Saturn -82542-05-31 23:30 J -28426891.53 -28426891.52 -28426891.49 0.0269 0.0268
 Saturn -82541-06-12 01:11 J -28426514.60 -28426514.45 -28426514.28 0.0271 0.0206
 Saturn -82540-06-24 17:16 J -28426137.00 -28426136.78 -28426136.57 0.0273 0.0129
 Saturn -82539-07-07 19:25 J -28425758.93 -28425758.69 -28425758.45 0.0275 0.0039
 Uranus -82539-12-12 23:30 J -28425600.62 -28425600.52 -28425600.40 0.0131 0.0117
 Saturn -82538-07-21 04:04 J -28425380.58 -28425380.33 -28425380.08 0.0278 0.0062
 Uranus -82538-12-17 09:20 J -28425231.20 -28425231.11 -28425230.98 0.0131 0.0118
 Saturn -82537-08-02 17:59 J -28425001.95 -28425001.75 -28425001.53 0.0281 0.0170
 Jupiter -82537-09-19 11:44 J -28424954.17 -28424954.01 -28424953.85 0.0497 0.0365
 Uranus -82537-12-20 05:01 J -28424862.45 -28424862.29 -28424862.10 0.0131 0.0092
 Saturn -82536-08-16 18:28 J -28424622.78 -28424622.73 -28424622.66 0.0284 0.0274
 Uranus -82536-12-24 14:37 J -28424493.06 -28424492.89 -28424492.71 0.0131 0.0093
 Uranus -82535-12-28 09:35 J -28424124.30 -28424124.10 -28424123.88 0.0131 0.0069
 Uranus -82533-01-01 18:42 J -28423754.93 -28423754.72 -28423754.49 0.0131 0.0064
 Uranus -82532-01-04 13:40 J -28423386.15 -28423385.93 -28423385.69 0.0132 0.0050
 Uranus -82531-01-08 23:01 J -28423016.79 -28423016.54 -28423016.30 0.0132 0.0032
 Uranus -82530-01-12 17:30 J -28422648.01 -28422647.77 -28422647.52 0.0132 0.0027
 Uranus -82529-01-17 02:23 J -28422278.65 -28422278.40 -28422278.15 0.0132 0.0002
 Uranus -82528-01-19 21:20 J -28421909.85 -28421909.61 -28421909.36 0.0133 0.0001
 Uranus -82527-01-24 06:13 J -28421540.48 -28421540.24 -28421539.99 0.0133 0.0026
 Saturn -82527-12-24 23:16 J -28421205.70 -28421205.53 -28421205.35 0.0289 0.0188
 Uranus -82526-01-28 01:11 J -28421171.68 -28421171.45 -28421171.20 0.0133 0.0030
 Saturn -82525-01-07 14:37 J -28420827.12 -28420826.89 -28420826.66 0.0286 0.0072
 Uranus -82525-02-01 10:47 J -28420802.28 -28420802.05 -28420801.82 0.0134 0.0049
 Jupiter -82525-09-24 11:44 J -28420566.24 -28420566.01 -28420565.78 0.0499 0.0165
 Saturn -82524-01-19 17:30 J -28420449.01 -28420448.77 -28420448.53 0.0283 0.0046
 Uranus -82524-02-04 06:28 J -28420433.43 -28420433.23 -28420433.00 0.0134 0.0063
 Saturn -82523-02-01 05:16 J -28420071.47 -28420071.28 -28420071.06 0.0280 0.0154

Uranus	-82523-02-08 17:01 J	-28420064.00	-28420063.79	-28420063.58	0.0135	0.0072
Uranus	-82522-02-12 13:54 J	-28419695.09	-28419694.92	-28419694.74	0.0135	0.0096
Saturn	-82522-02-13 10:04 J	-28419694.19	-28419694.08	-28419693.96	0.0277	0.0241
Uranus	-82521-02-17 01:11 J	-28419325.61	-28419325.45	-28419325.26	0.0136	0.0096
Uranus	-82520-02-19 23:44 J	-28418956.60	-28418956.51	-28418956.38	0.0136	0.0123
Uranus	-82519-02-24 12:56 J	-28418587.06	-28418586.96	-28418586.84	0.0137	0.0122
Jupiter	-82519-03-19 21:35 J	-28418563.74	-28418563.60	-28418563.45	0.0530	0.0409
Jupiter	-82513-09-28 20:52 J	-28416178.87	-28416178.63	-28416178.39	0.0501	0.0072
Saturn	-82512-06-07 07:25 J	-28415927.31	-28415927.19	-28415927.05	0.0270	0.0230
Saturn	-82511-06-19 14:23 J	-28415550.10	-28415549.90	-28415549.68	0.0272	0.0161
Saturn	-82510-07-02 03:49 J	-28415172.57	-28415172.34	-28415172.09	0.0274	0.0078
Saturn	-82509-07-14 06:42 J	-28414794.47	-28414794.22	-28414793.97	0.0277	0.0020
Mars	-82509-12-17 18:56 J	-28414637.90	-28414637.71	-28414637.52	0.1963	0.1103
Saturn	-82508-07-27 23:01 J	-28414415.75	-28414415.54	-28414415.32	0.0279	0.0128
Jupiter	-82507-03-24 14:08 J	-28414176.12	-28414175.91	-28414175.69	0.0528	0.0111
Saturn	-82507-08-11 00:28 J	-28414036.61	-28414036.48	-28414036.33	0.0282	0.0234
Jupiter	-82501-10-03 23:01 J	-28411790.69	-28411790.54	-28411790.38	0.0503	0.0369
Mars	-82500-06-15 07:54 J	-28411536.36	-28411536.17	-28411535.98	0.1579	0.0501
Pluto	-82498-01-22 09:35 J	-28410950.33	-28410950.10	-28410949.87	0.0078	0.0034
Neptune	-82498-03-29 12:42 J	-28410884.10	-28410883.97	-28410883.82	0.0089	0.0074
Saturn	-82498-12-19 03:35 J	-28410619.48	-28410619.35	-28410619.19	0.0289	0.0237
Neptune	-82497-03-30 19:25 J	-28410516.87	-28410516.69	-28410516.47	0.0089	0.0050
Uranus	-82497-06-02 08:37 J	-28410453.20	-28410453.14	-28410453.06	0.0148	0.0141
Saturn	-82497-12-31 17:01 J	-28410241.01	-28410240.79	-28410240.56	0.0287	0.0124
Neptune	-82496-04-02 04:04 J	-28410149.57	-28410149.33	-28410149.08	0.0089	0.0031
Uranus	-82496-06-07 20:37 J	-28410082.72	-28410082.64	-28410082.54	0.0148	0.0138
Saturn	-82495-01-13 23:16 J	-28409862.77	-28409862.53	-28409862.30	0.0285	0.0008
Jupiter	-82495-03-29 10:32 J	-28409788.27	-28409788.06	-28409787.84	0.0526	0.0196
Neptune	-82495-04-04 16:47 J	-28409782.05	-28409781.80	-28409781.56	0.0089	0.0006
Uranus	-82495-06-12 19:54 J	-28409712.81	-28409712.67	-28409712.50	0.0148	0.0116

Saturn -82494-01-26 23:59 J -28409484.71 -28409484.50 -28409484.28 0.0282 0.0109
 Neptune -82494-04-06 21:06 J -28409414.87 -28409414.62 -28409414.37 0.0089 0.0013
 Uranus -82494-06-18 10:04 J -28409342.25 -28409342.08 -28409341.87 0.0148 0.0096
 Saturn -82493-02-08 14:52 J -28409107.03 -28409106.88 -28409106.72 0.0279 0.0207
 Neptune -82493-04-08 12:56 J -28409047.18 -28409046.96 -28409046.73 0.0089 0.0039
 Uranus -82493-06-22 11:01 J -28408972.23 -28408972.04 -28408971.82 0.0148 0.0090
 Neptune -82492-04-10 15:06 J -28408680.04 -28408679.87 -28408679.66 0.0089 0.0058
 Uranus -82492-06-28 01:25 J -28408601.66 -28408601.44 -28408601.20 0.0147 0.0056
 Neptune -82491-04-13 07:25 J -28408312.28 -28408312.19 -28408312.09 0.0089 0.0082
 Uranus -82491-07-03 05:01 J -28408231.53 -28408231.29 -28408231.03 0.0147 0.0047
 Uranus -82490-07-08 17:01 J -28407861.03 -28407860.79 -28407860.53 0.0147 0.0024
 Uranus -82489-07-12 23:59 J -28407490.77 -28407490.50 -28407490.24 0.0147 0.0004
 Uranus -82488-07-18 07:54 J -28407120.42 -28407120.17 -28407119.92 0.0146 0.0009
 Uranus -82487-07-23 17:30 J -28406750.01 -28406749.77 -28406749.50 0.0146 0.0042
 Uranus -82486-07-28 21:06 J -28406379.85 -28406379.62 -28406379.38 0.0145 0.0054
 Uranus -82485-08-02 09:06 J -28406009.34 -28406009.12 -28406008.87 0.0145 0.0071
 Uranus -82484-08-07 09:06 J -28405639.29 -28405639.12 -28405638.92 0.0144 0.0099
 Jupiter -82483-04-02 18:13 J -28405400.86 -28405400.74 -28405400.61 0.0524 0.0435
 Saturn -82483-06-02 05:01 J -28405340.35 -28405340.29 -28405340.20 0.0269 0.0256
 Uranus -82483-08-12 22:18 J -28405268.75 -28405268.57 -28405268.38 0.0144 0.0101
 Saturn -82482-06-14 13:40 J -28404963.09 -28404962.93 -28404962.75 0.0271 0.0192
 Uranus -82482-08-17 19:40 J -28404898.77 -28404898.68 -28404898.54 0.0143 0.0129
 Saturn -82481-06-26 08:52 J -28404585.35 -28404585.13 -28404584.91 0.0273 0.0116
 Uranus -82481-08-22 07:11 J -28404528.23 -28404528.20 -28404528.11 0.0142 0.0139
 Saturn -82480-07-09 08:37 J -28404207.39 -28404207.14 -28404206.88 0.0275 0.0024
 Saturn -82479-07-22 13:54 J -28403829.17 -28403828.92 -28403828.67 0.0278 0.0079
 Saturn -82478-08-05 05:01 J -28403450.47 -28403450.29 -28403450.09 0.0281 0.0188
 Saturn -82469-12-12 17:16 J -28400032.85 -28400032.78 -28400032.71 0.0290 0.0277
 Saturn -82468-12-26 17:30 J -28399653.97 -28399653.77 -28399653.58 0.0288 0.0168
 Saturn -82466-01-09 04:32 J -28399275.55 -28399275.31 -28399275.07 0.0286 0.0054

Saturn	-82465-01-22 01:25 J	-28398897.68	-28398897.44	-28398897.19	0.0283	0.0063
Saturn	-82464-02-02 12:56 J	-28398520.14	-28398519.96	-28398519.76	0.0280	0.0170
Saturn	-82463-02-14 22:04 J	-28398142.66	-28398142.58	-28398142.47	0.0277	0.0253
Uranus	-82456-12-09 16:18 J	-28395287.84	-28395287.82	-28395287.75	0.0131	0.0129
Uranus	-82455-12-13 12:42 J	-28394919.01	-28394918.97	-28394918.88	0.0131	0.0127
Jupiter	-82454-09-19 17:59 J	-28394638.89	-28394638.75	-28394638.60	0.0497	0.0397
Uranus	-82454-12-17 22:47 J	-28394549.68	-28394549.55	-28394549.37	0.0131	0.0103
Saturn	-82453-06-08 17:30 J	-28394375.91	-28394375.77	-28394375.61	0.0270	0.0216
Mars	-82453-06-09 23:16 J	-28394374.71	-28394374.53	-28394374.35	0.1578	0.0671
Uranus	-82453-12-20 18:42 J	-28394180.85	-28394180.72	-28394180.55	0.0131	0.0105
Saturn	-82452-06-20 22:32 J	-28393998.76	-28393998.56	-28393998.33	0.0272	0.0149
Uranus	-82452-12-25 04:18 J	-28393811.50	-28393811.32	-28393811.09	0.0131	0.0079
Saturn	-82451-07-03 17:30 J	-28393621.01	-28393620.77	-28393620.53	0.0274	0.0063
Uranus	-82451-12-28 23:44 J	-28393442.70	-28393442.51	-28393442.29	0.0131	0.0076
Saturn	-82450-07-17 01:11 J	-28393242.69	-28393242.45	-28393242.21	0.0277	0.0037
Uranus	-82449-01-02 09:06 J	-28393073.34	-28393073.12	-28393072.88	0.0131	0.0057
Saturn	-82449-07-29 17:59 J	-28392863.97	-28392863.75	-28392863.54	0.0280	0.0143
Uranus	-82448-01-05 04:04 J	-28392704.55	-28392704.33	-28392704.08	0.0132	0.0046
Saturn	-82448-08-12 16:18 J	-28392484.93	-28392484.82	-28392484.69	0.0283	0.0249
Uranus	-82447-01-09 12:42 J	-28392335.21	-28392334.97	-28392334.72	0.0132	0.0036
Uranus	-82446-01-13 07:40 J	-28391966.43	-28391966.18	-28391965.94	0.0132	0.0012
Uranus	-82445-01-17 16:04 J	-28391597.08	-28391596.83	-28391596.58	0.0132	0.0010
Uranus	-82444-01-20 10:47 J	-28391228.28	-28391228.05	-28391227.80	0.0133	0.0019
Uranus	-82443-01-24 19:40 J	-28390858.93	-28390858.68	-28390858.43	0.0133	0.0019
Uranus	-82442-01-28 15:06 J	-28390490.09	-28390489.87	-28390489.63	0.0133	0.0043
Jupiter	-82442-09-24 04:18 J	-28390251.53	-28390251.32	-28390251.09	0.0499	0.0199
Uranus	-82441-02-02 00:28 J	-28390120.70	-28390120.48	-28390120.24	0.0134	0.0051
Uranus	-82440-02-04 21:06 J	-28389751.83	-28389751.62	-28389751.40	0.0134	0.0067
Uranus	-82439-02-09 06:56 J	-28389382.39	-28389382.21	-28389382.01	0.0135	0.0086
Saturn	-82439-12-20 14:23 J	-28389068.05	-28389067.90	-28389067.72	0.0289	0.0217

Uranus -82438-02-13 04:32 J -28389013.49 -28389013.31 -28389013.12 0.0135 0.0090
 Saturn -82437-01-03 05:44 J -28388689.48 -28388689.26 -28388689.04 0.0287 0.0104
 Uranus -82437-02-17 15:20 J -28388643.96 -28388643.86 -28388643.71 0.0136 0.0116
 Saturn -82436-01-15 14:37 J -28388311.13 -28388310.89 -28388310.66 0.0284 0.0013
 Uranus -82436-02-20 14:08 J -28388275.03 -28388274.91 -28388274.76 0.0136 0.0114
 Jupiter -82436-03-18 21:20 J -28388248.72 -28388248.61 -28388248.49 0.0530 0.0446
 Saturn -82435-01-28 13:25 J -28387933.15 -28387932.94 -28387932.72 0.0281 0.0125
 Saturn -82434-02-09 21:49 J -28387555.73 -28387555.59 -28387555.43 0.0279 0.0218
 Jupiter -82430-09-29 04:47 J -28385863.53 -28385863.30 -28385863.06 0.0501 0.0055
 Mars -82430-12-23 07:40 J -28385778.34 -28385778.18 -28385778.01 0.1962 0.1080
 Jupiter -82424-03-23 18:28 J -28383860.95 -28383860.73 -28383860.50 0.0528 0.0146
 Saturn -82424-06-03 15:35 J -28383788.93 -28383788.85 -28383788.74 0.0270 0.0246
 Saturn -82423-06-16 04:04 J -28383411.50 -28383411.33 -28383411.15 0.0271 0.0179
 Saturn -82422-06-28 20:23 J -28383033.88 -28383033.65 -28383033.41 0.0273 0.0101
 Mars -82421-06-17 14:08 J -28382679.06 -28382678.91 -28382678.76 0.1579 0.0984
 Saturn -82421-07-10 17:16 J -28382656.04 -28382655.78 -28382655.52 0.0276 0.0009
 Saturn -82420-07-24 00:28 J -28382277.72 -28382277.48 -28382277.24 0.0278 0.0095
 Saturn -82419-08-06 21:20 J -28381898.77 -28381898.61 -28381898.43 0.0281 0.0204
 Jupiter -82418-10-03 18:28 J -28381475.91 -28381475.73 -28381475.55 0.0502 0.0339
 Neptune -82417-09-29 08:23 J -28381114.18 -28381114.15 -28381114.07 0.0088 0.0087
 Neptune -82416-10-01 17:01 J -28380746.93 -28380746.79 -28380746.60 0.0088 0.0068
 Neptune -82415-10-04 12:13 J -28380379.23 -28380378.99 -28380378.75 0.0088 0.0042
 Neptune -82414-10-06 23:30 J -28380011.76 -28380011.52 -28380011.27 0.0088 0.0022
 Neptune -82413-10-08 13:25 J -28379644.21 -28379643.94 -28379643.66 0.0088 0.0004
 Jupiter -82412-03-28 01:54 J -28379473.64 -28379473.42 -28379473.21 0.0527 0.0152
 Uranus -82412-06-08 11:16 J -28379401.15 -28379401.03 -28379400.88 0.0148 0.0126
 Neptune -82412-10-11 05:44 J -28379276.50 -28379276.26 -28379276.01 0.0088 0.0024
 Uranus -82411-06-13 11:16 J -28379031.17 -28379031.03 -28379030.86 0.0148 0.0116
 Neptune -82411-10-13 15:06 J -28378909.08 -28378908.87 -28378908.63 0.0088 0.0049
 Uranus -82410-06-19 01:40 J -28378660.60 -28378660.43 -28378660.23 0.0148 0.0102

Neptune -82410-10-16 10:47 J -28378541.18 -28378541.05 -28378540.86 0.0088 0.0070
 Saturn -82410-12-15 11:59 J -28378481.09 -28378481.00 -28378480.88 0.0290 0.0260
 Uranus -82409-06-23 02:08 J -28378290.63 -28378290.41 -28378290.17 0.0148 0.0072
 Saturn -82409-12-28 08:08 J -28378102.36 -28378102.16 -28378101.94 0.0288 0.0148
 Uranus -82408-06-28 16:32 J -28377920.02 -28377919.81 -28377919.57 0.0147 0.0067
 Saturn -82407-01-10 14:23 J -28377724.15 -28377723.90 -28377723.65 0.0285 0.0032
 Uranus -82407-07-03 19:11 J -28377549.95 -28377549.70 -28377549.44 0.0147 0.0034
 Saturn -82406-01-23 10:32 J -28377346.29 -28377346.06 -28377345.83 0.0283 0.0082
 Uranus -82406-07-09 07:40 J -28377179.42 -28377179.18 -28377178.92 0.0147 0.0017
 Saturn -82405-02-05 02:37 J -28376968.56 -28376968.39 -28376968.21 0.0280 0.0183
 Uranus -82405-07-13 13:25 J -28376809.21 -28376808.94 -28376808.67 0.0147 0.0003
 Saturn -82404-02-16 12:56 J -28376591.03 -28376590.96 -28376590.89 0.0277 0.0263
 Uranus -82404-07-18 22:18 J -28376438.81 -28376438.57 -28376438.32 0.0146 0.0030
 Uranus -82403-07-24 07:25 J -28376068.45 -28376068.19 -28376067.93 0.0146 0.0036
 Uranus -82402-07-29 11:59 J -28375698.22 -28375698.00 -28375697.77 0.0145 0.0063
 Uranus -82401-08-02 23:30 J -28375327.73 -28375327.52 -28375327.30 0.0145 0.0084
 Jupiter -82400-04-02 01:40 J -28375085.57 -28375085.43 -28375085.28 0.0525 0.0393
 Uranus -82400-08-07 23:59 J -28374957.68 -28374957.50 -28374957.29 0.0144 0.0092
 Uranus -82399-08-13 12:42 J -28374587.10 -28374586.97 -28374586.83 0.0144 0.0122
 Uranus -82398-08-18 09:49 J -28374217.19 -28374217.09 -28374216.94 0.0143 0.0125
 Saturn -82395-05-30 01:11 J -28373201.45 -28373201.45 -28373201.43 0.0269 0.0268
 Saturn -82394-06-11 00:13 J -28372824.65 -28372824.49 -28372824.32 0.0270 0.0204
 Saturn -82393-06-22 10:47 J -28372447.27 -28372447.05 -28372446.84 0.0272 0.0133
 Saturn -82392-07-05 10:47 J -28372069.29 -28372069.05 -28372068.81 0.0275 0.0046
 Saturn -82391-07-18 18:42 J -28371690.96 -28371690.72 -28371690.47 0.0277 0.0053
 Saturn -82390-08-01 08:08 J -28371312.37 -28371312.16 -28371311.94 0.0280 0.0159
 Saturn -82389-08-14 04:32 J -28370933.39 -28370933.31 -28370933.22 0.0283 0.0266
 Saturn -82380-12-22 06:42 J -28367516.39 -28367516.22 -28367516.04 0.0289 0.0200
 Saturn -82378-01-04 23:59 J -28367137.72 -28367137.50 -28367137.27 0.0286 0.0083
 Saturn -82377-01-18 06:56 J -28366759.44 -28366759.21 -28366758.97 0.0284 0.0033

Saturn -82376-01-29 23:59 J -28366381.71 -28366381.50 -28366381.29 0.0281 0.0139
 Saturn -82375-02-11 04:32 J -28366004.44 -28366004.31 -28366004.17 0.0278 0.0229
 Mars -82374-06-12 23:30 J -28365517.70 -28365517.52 -28365517.34 0.1578 0.0344
 Jupiter -82371-09-18 11:16 J -28364324.15 -28364324.03 -28364323.91 0.0497 0.0426
 Uranus -82371-12-14 03:06 J -28364237.49 -28364237.37 -28364237.25 0.0131 0.0115
 Uranus -82370-12-18 12:56 J -28363868.08 -28363867.96 -28363867.83 0.0131 0.0115
 Uranus -82369-12-21 08:52 J -28363499.30 -28363499.13 -28363498.94 0.0131 0.0088
 Uranus -82368-12-25 17:44 J -28363129.93 -28363129.76 -28363129.55 0.0131 0.0088
 Uranus -82367-12-29 13:25 J -28362761.15 -28362760.94 -28362760.71 0.0131 0.0064
 Uranus -82365-01-02 22:04 J -28362391.79 -28362391.58 -28362391.34 0.0131 0.0058
 Saturn -82365-06-05 05:01 J -28362237.40 -28362237.29 -28362237.16 0.0270 0.0234
 Uranus -82364-01-05 17:30 J -28362023.00 -28362022.77 -28362022.53 0.0132 0.0043
 Saturn -82364-06-17 14:37 J -28361860.08 -28361859.89 -28361859.68 0.0271 0.0164
 Uranus -82363-01-10 01:54 J -28361653.67 -28361653.42 -28361653.17 0.0132 0.0025
 Saturn -82363-06-30 03:06 J -28361482.61 -28361482.37 -28361482.12 0.0274 0.0086
 Uranus -82362-01-13 20:52 J -28361284.86 -28361284.63 -28361284.37 0.0132 0.0020
 Saturn -82362-07-13 02:08 J -28361104.66 -28361104.41 -28361104.16 0.0276 0.0008
 Uranus -82361-01-18 05:16 J -28360915.53 -28360915.28 -28360915.02 0.0132 0.0008
 Saturn -82361-07-25 14:52 J -28360726.09 -28360725.88 -28360725.65 0.0279 0.0113
 Uranus -82360-01-21 00:56 J -28360546.71 -28360546.46 -28360546.22 0.0133 0.0008
 Saturn -82360-08-08 15:49 J -28360346.99 -28360346.84 -28360346.69 0.0282 0.0220
 Uranus -82359-01-25 08:52 J -28360177.37 -28360177.13 -28360176.88 0.0133 0.0035
 Jupiter -82359-09-23 11:30 J -28359936.23 -28359936.02 -28359935.81 0.0498 0.0227
 Uranus -82358-01-29 04:47 J -28359808.53 -28359808.30 -28359808.06 0.0133 0.0039
 Uranus -82357-02-02 13:25 J -28359439.15 -28359438.94 -28359438.70 0.0134 0.0060
 Uranus -82356-02-05 10:04 J -28359070.27 -28359070.08 -28359069.86 0.0134 0.0073
 Uranus -82355-02-09 19:54 J -28358700.86 -28358700.67 -28358700.47 0.0135 0.0083
 Uranus -82354-02-13 17:44 J -28358331.90 -28358331.76 -28358331.60 0.0135 0.0106
 Uranus -82353-02-18 04:32 J -28357962.44 -28357962.31 -28357962.14 0.0136 0.0107
 Jupiter -82353-03-17 22:32 J -28357933.64 -28357933.56 -28357933.46 0.0531 0.0489

Uranus -82352-02-21 04:18 J -28357593.37 -28357593.32 -28357593.28 0.0136 0.0134
 Uranus -82351-02-25 16:04 J -28357223.87 -28357223.83 -28357223.77 0.0137 0.0134
 Saturn -82351-12-17 04:18 J -28356929.45 -28356929.32 -28356929.17 0.0290 0.0242
 Saturn -82350-12-30 19:11 J -28356550.93 -28356550.70 -28356550.48 0.0288 0.0126
 Saturn -82348-01-12 00:13 J -28356172.73 -28356172.49 -28356172.25 0.0285 0.0010
 Saturn -82347-01-24 23:44 J -28355794.72 -28355794.51 -28355794.29 0.0282 0.0100
 Jupiter -82347-09-28 00:13 J -28355548.74 -28355548.49 -28355548.24 0.0499 0.0027
 Saturn -82346-02-06 17:16 J -28355416.94 -28355416.78 -28355416.61 0.0279 0.0199
 Saturn -82345-02-18 22:32 J -28355039.59 -28355039.56 -28355039.52 0.0276 0.0273
 Jupiter -82341-03-22 10:32 J -28353546.27 -28353546.06 -28353545.85 0.0530 0.0186
 Pluto -82339-07-19 19:11 J -28352696.92 -28352696.70 -28352696.44 0.0066 0.0022
 Saturn -82336-05-31 05:30 J -28351650.33 -28351650.27 -28351650.20 0.0269 0.0258
 Saturn -82335-06-12 08:37 J -28351273.30 -28351273.14 -28351272.96 0.0270 0.0192
 Jupiter -82335-10-02 18:13 J -28351160.92 -28351160.74 -28351160.56 0.0501 0.0307
 Neptune -82334-03-28 19:11 J -28350983.77 -28350983.70 -28350983.57 0.0089 0.0081
 Saturn -82334-06-25 00:56 J -28350895.68 -28350895.46 -28350895.25 0.0272 0.0118
 Neptune -82333-03-30 02:52 J -28350616.54 -28350616.38 -28350616.20 0.0089 0.0066
 Saturn -82333-07-07 00:56 J -28350517.70 -28350517.46 -28350517.21 0.0275 0.0031
 Neptune -82332-04-01 15:35 J -28350249.06 -28350248.85 -28350248.61 0.0089 0.0037
 Saturn -82332-07-20 05:30 J -28350139.51 -28350139.27 -28350139.01 0.0278 0.0070
 Neptune -82331-04-03 19:11 J -28349881.94 -28349881.70 -28349881.45 0.0089 0.0022
 Saturn -82331-08-02 17:44 J -28349760.95 -28349760.76 -28349760.55 0.0280 0.0177
 Neptune -82330-04-06 11:01 J -28349514.28 -28349514.04 -28349513.78 0.0089 0.0008
 Saturn -82330-08-16 17:30 J -28349381.78 -28349381.77 -28349381.72 0.0283 0.0282
 Jupiter -82329-03-27 12:28 J -28349158.19 -28349157.98 -28349157.76 0.0528 0.0123
 Neptune -82329-04-07 13:40 J -28349147.16 -28349146.93 -28349146.68 0.0089 0.0021
 Uranus -82329-06-03 11:16 J -28349090.09 -28349090.03 -28349089.93 0.0148 0.0140
 Neptune -82328-04-10 04:32 J -28348779.50 -28348779.31 -28348779.08 0.0089 0.0051
 Uranus -82328-06-08 22:47 J -28348719.65 -28348719.55 -28348719.45 0.0148 0.0135
 Neptune -82327-04-12 10:04 J -28348412.24 -28348412.08 -28348411.91 0.0089 0.0065

Mars -82327-06-07 06:13 J -28348356.32 -28348356.24 -28348356.16 0.1578 0.1401
 Uranus -82327-06-13 22:47 J -28348349.70 -28348349.55 -28348349.38 0.0148 0.0112
 Uranus -82326-06-19 12:56 J -28347979.16 -28347978.96 -28347978.75 0.0148 0.0091
 Uranus -82325-06-23 13:40 J -28347609.15 -28347608.93 -28347608.72 0.0148 0.0083
 Uranus -82324-06-29 04:32 J -28347238.55 -28347238.31 -28347238.06 0.0147 0.0048
 Uranus -82323-07-04 06:42 J -28346868.48 -28346868.22 -28346867.97 0.0147 0.0039
 Uranus -82322-07-09 20:08 J -28346497.91 -28346497.66 -28346497.41 0.0147 0.0014
 Saturn -82322-12-10 22:47 J -28346343.55 -28346343.55 -28346343.53 0.0290 0.0290
 Uranus -82321-07-14 00:13 J -28346127.75 -28346127.49 -28346127.22 0.0147 0.0013
 Saturn -82321-12-24 01:11 J -28345964.63 -28345964.45 -28345964.26 0.0288 0.0180
 Uranus -82320-07-19 10:18 J -28345757.31 -28345757.07 -28345756.81 0.0146 0.0020
 Saturn -82319-01-06 16:47 J -28345586.03 -28345585.80 -28345585.56 0.0286 0.0062
 Uranus -82319-07-24 17:44 J -28345387.00 -28345386.76 -28345386.50 0.0146 0.0053
 Saturn -82318-01-19 17:59 J -28345207.99 -28345207.75 -28345207.50 0.0283 0.0052
 Uranus -82318-07-29 23:01 J -28345016.75 -28345016.54 -28345016.30 0.0145 0.0065
 Saturn -82317-02-01 06:56 J -28344830.41 -28344830.21 -28344830.00 0.0280 0.0157
 Jupiter -82317-04-01 00:13 J -28344770.66 -28344770.49 -28344770.32 0.0525 0.0356
 Uranus -82317-08-03 09:20 J -28344646.32 -28344646.11 -28344645.88 0.0145 0.0083
 Saturn -82316-02-12 14:52 J -28344452.98 -28344452.88 -28344452.76 0.0278 0.0243
 Uranus -82316-08-08 10:47 J -28344276.19 -28344276.05 -28344275.87 0.0144 0.0111
 Uranus -82315-08-13 23:01 J -28343905.69 -28343905.54 -28343905.37 0.0144 0.0113
 Uranus -82314-08-18 21:20 J -28343535.63 -28343535.61 -28343535.56 0.0143 0.0141
 Saturn -82306-06-07 13:40 J -28340686.06 -28340685.93 -28340685.77 0.0270 0.0222
 Saturn -82305-06-18 18:56 J -28340308.91 -28340308.71 -28340308.49 0.0272 0.0152
 Saturn -82304-07-01 09:35 J -28339931.34 -28339931.10 -28339930.86 0.0274 0.0071
 Saturn -82303-07-14 14:37 J -28339553.13 -28339552.89 -28339552.65 0.0276 0.0026
 Saturn -82302-07-28 06:13 J -28339174.44 -28339174.24 -28339174.01 0.0279 0.0130
 Saturn -82301-08-10 05:59 J -28338795.39 -28338795.25 -28338795.11 0.0282 0.0233
 Mars -82295-06-14 18:13 J -28336660.92 -28336660.74 -28336660.57 0.1578 0.0325
 Saturn -82292-12-18 14:37 J -28335378.03 -28335377.89 -28335377.71 0.0290 0.0222

Saturn	-82290-01-01 05:30 J	-28334999.50	-28334999.27	-28334999.05	0.0288	0.0107
Saturn	-82289-01-14 14:23 J	-28334621.14	-28334620.90	-28334620.67	0.0285	0.0011
Saturn	-82288-01-26 15:20 J	-28334243.07	-28334242.86	-28334242.64	0.0282	0.0120
Jupiter	-82288-09-17 21:06 J	-28334008.71	-28334008.62	-28334008.53	0.0496	0.0455
Uranus	-82288-12-10 17:16 J	-28333924.81	-28333924.78	-28333924.70	0.0131	0.0128
Saturn	-82287-02-08 04:32 J	-28333865.46	-28333865.31	-28333865.15	0.0279	0.0213
Uranus	-82287-12-14 14:37 J	-28333555.95	-28333555.89	-28333555.79	0.0131	0.0124
Uranus	-82286-12-19 00:13 J	-28333186.63	-28333186.49	-28333186.30	0.0131	0.0100
Uranus	-82285-12-21 21:06 J	-28332817.76	-28332817.62	-28332817.44	0.0131	0.0100
Uranus	-82284-12-26 06:13 J	-28332448.44	-28332448.24	-28332448.01	0.0131	0.0074
Uranus	-82283-12-30 02:23 J	-28332079.59	-28332079.40	-28332079.18	0.0131	0.0071
Uranus	-82281-01-03 10:47 J	-28331710.28	-28331710.05	-28331709.81	0.0131	0.0051
Uranus	-82280-01-06 06:13 J	-28331341.46	-28331341.24	-28331340.99	0.0132	0.0040
Uranus	-82279-01-10 13:54 J	-28330972.17	-28330971.92	-28330971.67	0.0132	0.0028
Uranus	-82278-01-14 09:35 J	-28330603.35	-28330603.10	-28330602.86	0.0132	0.0005
Uranus	-82277-01-18 17:01 J	-28330234.04	-28330233.79	-28330233.53	0.0132	0.0001
Saturn	-82277-06-01 11:16 J	-28330099.10	-28330099.03	-28330098.92	0.0269	0.0248
Uranus	-82276-01-21 12:42 J	-28329865.20	-28329864.97	-28329864.72	0.0133	0.0027
Saturn	-82276-06-13 20:23 J	-28329721.82	-28329721.65	-28329721.47	0.0271	0.0182
Jupiter	-82276-09-22 06:42 J	-28329621.42	-28329621.22	-28329621.00	0.0497	0.0260
Uranus	-82275-01-25 20:37 J	-28329495.89	-28329495.64	-28329495.39	0.0133	0.0027
Saturn	-82275-06-26 12:28 J	-28329344.20	-28329343.98	-28329343.74	0.0273	0.0104
Uranus	-82274-01-29 17:16 J	-28329127.00	-28329126.78	-28329126.55	0.0133	0.0053
Saturn	-82274-07-09 08:23 J	-28328966.41	-28328966.15	-28328965.89	0.0275	0.0013
Uranus	-82273-02-03 01:25 J	-28328757.65	-28328757.44	-28328757.20	0.0134	0.0061
Saturn	-82273-07-21 11:16 J	-28328588.26	-28328588.03	-28328587.78	0.0278	0.0089
Uranus	-82272-02-05 23:16 J	-28328388.73	-28328388.53	-28328388.33	0.0134	0.0077
Saturn	-82272-08-04 03:49 J	-28328209.51	-28328209.34	-28328209.16	0.0281	0.0194
Uranus	-82271-02-10 07:54 J	-28328019.33	-28328019.17	-28328018.98	0.0135	0.0096
Uranus	-82270-02-14 06:13 J	-28327650.38	-28327650.24	-28327650.06	0.0135	0.0101

Jupiter -82270-03-17 20:08 J -28327618.70 -28327618.66 -28327618.62 0.0532 0.0522
 Uranus -82269-02-18 16:32 J -28327280.89 -28327280.81 -28327280.71 0.0136 0.0126
 Uranus -82268-02-21 15:49 J -28326911.92 -28326911.84 -28326911.74 0.0136 0.0125
 Jupiter -82264-09-27 02:52 J -28325233.61 -28325233.38 -28325233.14 0.0499 0.0010
 Saturn -82263-12-12 17:30 J -28324791.85 -28324791.77 -28324791.69 0.0290 0.0272
 Saturn -82262-12-26 17:30 J -28324412.96 -28324412.77 -28324412.56 0.0288 0.0162
 Saturn -82260-01-08 03:35 J -28324034.59 -28324034.35 -28324034.10 0.0286 0.0044
 Saturn -82259-01-21 00:42 J -28323656.70 -28323656.47 -28323656.23 0.0283 0.0073
 Saturn -82258-02-02 15:49 J -28323279.01 -28323278.84 -28323278.65 0.0280 0.0174
 Jupiter -82258-03-22 23:01 J -28323230.74 -28323230.54 -28323230.33 0.0530 0.0199
 Saturn -82257-02-15 03:35 J -28322901.43 -28322901.35 -28322901.25 0.0277 0.0254
 Pluto -82252-01-23 18:28 J -28321096.97 -28321096.73 -28321096.48 0.0078 0.0005
 Neptune -82252-09-30 23:59 J -28320846.63 -28320846.50 -28320846.32 0.0088 0.0073
 Jupiter -82252-10-01 22:18 J -28320845.77 -28320845.57 -28320845.36 0.0501 0.0283
 Neptune -82251-10-03 13:54 J -28320479.09 -28320478.92 -28320478.71 0.0088 0.0058
 Neptune -82250-10-06 02:52 J -28320111.63 -28320111.38 -28320111.11 0.0088 0.0027
 Neptune -82249-10-07 20:52 J -28319743.87 -28319743.63 -28319743.36 0.0088 0.0014
 Mars -82248-06-08 23:16 J -28319499.64 -28319499.53 -28319499.41 0.1578 0.1204
 Neptune -82248-10-10 05:01 J -28319376.54 -28319376.29 -28319376.01 0.0088 0.0019
 Saturn -82247-06-08 14:52 J -28319135.02 -28319134.88 -28319134.71 0.0270 0.0212
 Neptune -82247-10-13 02:08 J -28319008.66 -28319008.41 -28319008.17 0.0088 0.0032
 Jupiter -82246-03-27 10:18 J -28318843.30 -28318843.07 -28318842.84 0.0528 0.0090
 Saturn -82246-06-20 21:20 J -28318757.81 -28318757.61 -28318757.39 0.0272 0.0141
 Neptune -82246-10-15 08:08 J -28318641.32 -28318641.16 -28318640.95 0.0088 0.0064
 Saturn -82245-07-02 17:59 J -28318379.98 -28318379.75 -28318379.51 0.0274 0.0055
 Neptune -82245-10-17 05:01 J -28318273.41 -28318273.29 -28318273.14 0.0088 0.0077
 Uranus -82244-06-09 08:08 J -28318038.28 -28318038.16 -28318038.00 0.0148 0.0124
 Saturn -82244-07-16 02:08 J -28318001.65 -28318001.41 -28318001.17 0.0277 0.0043
 Uranus -82243-06-14 09:20 J -28317668.25 -28317668.11 -28317667.93 0.0148 0.0114
 Saturn -82243-07-29 16:04 J -28317623.04 -28317622.83 -28317622.61 0.0279 0.0147

Uranus	-82242-06-19 23:16 J	-28317297.72	-28317297.53	-28317297.33	0.0148	0.0097
Saturn	-82242-08-12 11:59 J	-28317244.10	-28317244.00	-28317243.87	0.0282	0.0251
Uranus	-82241-06-23 23:30 J	-28316927.73	-28316927.52	-28316927.28	0.0148	0.0067
Uranus	-82240-06-29 14:37 J	-28316557.12	-28316556.89	-28316556.65	0.0147	0.0060
Uranus	-82239-07-04 15:49 J	-28316187.09	-28316186.84	-28316186.58	0.0147	0.0026
Uranus	-82238-07-10 05:59 J	-28315816.50	-28315816.25	-28315816.00	0.0147	0.0009
Uranus	-82237-07-14 09:20 J	-28315446.37	-28315446.11	-28315445.84	0.0147	0.0007
Uranus	-82236-07-19 20:52 J	-28315075.86	-28315075.63	-28315075.38	0.0146	0.0039
Uranus	-82235-07-25 03:06 J	-28314705.61	-28314705.37	-28314705.10	0.0146	0.0046
Jupiter	-82234-04-01 02:23 J	-28314455.57	-28314455.40	-28314455.22	0.0526	0.0314
Uranus	-82234-07-30 10:47 J	-28314335.27	-28314335.05	-28314334.84	0.0145	0.0075
Uranus	-82233-08-03 20:08 J	-28313964.86	-28313964.66	-28313964.46	0.0145	0.0094
Saturn	-82233-12-19 22:47 J	-28313826.72	-28313826.55	-28313826.37	0.0290	0.0204
Uranus	-82232-08-08 23:01 J	-28313594.71	-28313594.54	-28313594.37	0.0144	0.0104
Saturn	-82231-01-02 17:01 J	-28313448.01	-28313447.79	-28313447.56	0.0287	0.0089
Uranus	-82231-08-14 09:49 J	-28313224.17	-28313224.09	-28313223.98	0.0144	0.0134
Saturn	-82230-01-16 04:04 J	-28313069.57	-28313069.33	-28313069.10	0.0285	0.0031
Uranus	-82230-08-19 08:23 J	-28312854.20	-28312854.15	-28312854.06	0.0143	0.0137
Saturn	-82229-01-29 01:40 J	-28312691.64	-28312691.43	-28312691.22	0.0282	0.0138
Saturn	-82228-02-09 08:37 J	-28312314.26	-28312314.14	-28312313.98	0.0279	0.0227
Mars	-82225-12-16 05:30 J	-28310908.32	-28310908.27	-28310908.22	0.1963	0.1880
Saturn	-82218-06-03 19:54 J	-28308547.77	-28308547.67	-28308547.55	0.0269	0.0237
Saturn	-82217-06-15 05:01 J	-28308170.47	-28308170.29	-28308170.09	0.0271	0.0171
Mars	-82216-06-16 11:44 J	-28307804.16	-28307804.01	-28307803.86	0.1578	0.0954
Saturn	-82216-06-27 16:47 J	-28307793.04	-28307792.80	-28307792.55	0.0273	0.0090
Saturn	-82215-07-10 11:01 J	-28307415.30	-28307415.04	-28307414.79	0.0275	0.0004
Saturn	-82214-07-23 18:42 J	-28307036.94	-28307036.72	-28307036.49	0.0278	0.0106
Saturn	-82213-08-05 15:49 J	-28306657.99	-28306657.84	-28306657.67	0.0281	0.0212
Jupiter	-82205-09-16 17:44 J	-28303693.80	-28303693.76	-28303693.71	0.0496	0.0486
Saturn	-82204-12-14 07:11 J	-28303240.32	-28303240.20	-28303240.08	0.0290	0.0254

Uranus	-82203-12-15 04:04 J	-28302874.43	-28302874.33	-28302874.19	0.0131	0.0114
Saturn	-82203-12-28 02:23 J	-28302861.61	-28302861.40	-28302861.17	0.0288	0.0142
Uranus	-82202-12-19 13:11 J	-28302505.07	-28302504.95	-28302504.80	0.0131	0.0111
Saturn	-82201-01-10 09:06 J	-28302483.36	-28302483.12	-28302482.87	0.0285	0.0023
Uranus	-82201-12-22 10:47 J	-28302136.23	-28302136.05	-28302135.86	0.0131	0.0084
Saturn	-82200-01-22 08:52 J	-28302105.35	-28302105.13	-28302104.90	0.0282	0.0091
Uranus	-82200-12-26 18:42 J	-28301766.92	-28301766.72	-28301766.52	0.0131	0.0083
Saturn	-82199-02-04 03:20 J	-28301727.52	-28301727.36	-28301727.18	0.0280	0.0190
Uranus	-82199-12-30 14:52 J	-28301398.08	-28301397.88	-28301397.64	0.0131	0.0060
Saturn	-82198-02-16 12:56 J	-28301350.00	-28301349.96	-28301349.88	0.0277	0.0267
Uranus	-82197-01-03 22:32 J	-28301028.79	-28301028.56	-28301028.32	0.0131	0.0053
Uranus	-82196-01-06 18:56 J	-28300659.94	-28300659.71	-28300659.47	0.0132	0.0036
Uranus	-82195-01-11 02:08 J	-28300290.66	-28300290.41	-28300290.16	0.0132	0.0018
Uranus	-82194-01-14 22:32 J	-28299921.80	-28299921.56	-28299921.31	0.0132	0.0011
Uranus	-82193-01-19 05:30 J	-28299552.52	-28299552.27	-28299552.01	0.0132	0.0016
Jupiter	-82193-09-21 13:11 J	-28299306.14	-28299305.95	-28299305.76	0.0497	0.0283
Uranus	-82192-01-22 02:23 J	-28299183.64	-28299183.40	-28299183.16	0.0133	0.0017
Uranus	-82191-01-26 09:06 J	-28298814.36	-28298814.12	-28298813.88	0.0133	0.0044
Uranus	-82190-01-30 06:13 J	-28298445.46	-28298445.24	-28298445.01	0.0133	0.0048
Uranus	-82189-02-03 13:40 J	-28298076.14	-28298075.93	-28298075.70	0.0134	0.0070
Saturn	-82189-05-28 16:32 J	-28297960.85	-28297960.81	-28297960.73	0.0268	0.0262
Uranus	-82188-02-06 11:30 J	-28297707.19	-28297707.02	-28297706.81	0.0134	0.0084
Saturn	-82188-06-09 14:52 J	-28297584.03	-28297583.88	-28297583.71	0.0270	0.0203
Uranus	-82187-02-10 20:08 J	-28297337.84	-28297337.66	-28297337.47	0.0135	0.0094
Saturn	-82187-06-22 03:06 J	-28297206.57	-28297206.37	-28297206.15	0.0272	0.0129
Uranus	-82186-02-14 19:25 J	-28296968.81	-28296968.69	-28296968.57	0.0135	0.0117
Saturn	-82186-07-05 01:54 J	-28296828.66	-28296828.42	-28296828.18	0.0274	0.0042
Uranus	-82185-02-19 04:18 J	-28296599.42	-28296599.32	-28296599.17	0.0136	0.0118
Saturn	-82185-07-17 06:28 J	-28296450.48	-28296450.23	-28296449.98	0.0277	0.0058
Saturn	-82184-07-30 16:32 J	-28296072.01	-28296071.81	-28296071.59	0.0280	0.0166

Saturn -82183-08-13 13:25 J -28295693.00 -28295692.94 -28295692.85 0.0282 0.0269
 Jupiter -82181-09-26 09:06 J -28294918.37 -28294918.12 -28294917.87 0.0499 0.0014
 Jupiter -82175-03-21 16:04 J -28292916.04 -28292915.83 -28292915.62 0.0530 0.0237
 Saturn -82174-12-22 09:20 J -28292275.28 -28292275.11 -28292274.92 0.0290 0.0186
 Saturn -82172-01-04 05:16 J -28291896.50 -28291896.28 -28291896.05 0.0287 0.0069
 Saturn -82171-01-17 12:28 J -28291518.22 -28291517.98 -28291517.74 0.0284 0.0048
 Saturn -82170-01-30 04:04 J -28291140.52 -28291140.33 -28291140.11 0.0281 0.0155
 Saturn -82169-02-11 11:30 J -28290763.13 -28290763.02 -28290762.89 0.0278 0.0241
 Neptune -82169-03-29 15:20 J -28290715.98 -28290715.86 -28290715.72 0.0089 0.0075
 Mars -82169-06-10 21:49 J -28290642.78 -28290642.59 -28290642.40 0.1578 0.0352
 Jupiter -82169-09-30 23:59 J -28290530.69 -28290530.50 -28290530.30 0.0500 0.0265
 Neptune -82168-03-31 17:59 J -28290348.94 -28290348.75 -28290348.52 0.0089 0.0049
 Neptune -82167-04-03 10:32 J -28289981.30 -28289981.06 -28289980.83 0.0089 0.0032
 Neptune -82166-04-05 13:11 J -28289614.20 -28289613.95 -28289613.70 0.0089 0.0006
 Neptune -82165-04-07 03:49 J -28289246.59 -28289246.34 -28289246.08 0.0089 0.0012
 Neptune -82164-04-09 09:35 J -28288879.30 -28288879.10 -28288878.87 0.0089 0.0039
 Jupiter -82163-03-26 13:54 J -28288528.14 -28288527.92 -28288527.70 0.0529 0.0050
 Neptune -82163-04-11 19:54 J -28288511.86 -28288511.67 -28288511.46 0.0089 0.0055
 Neptune -82162-04-14 06:28 J -28288144.29 -28288144.23 -28288144.11 0.0089 0.0082
 Uranus -82161-06-04 07:25 J -28287727.25 -28287727.19 -28287727.08 0.0148 0.0139
 Uranus -82160-06-09 16:32 J -28287356.91 -28287356.81 -28287356.69 0.0148 0.0134
 Saturn -82159-06-05 01:40 J -28286996.55 -28286996.43 -28286996.29 0.0269 0.0225
 Uranus -82159-06-14 17:59 J -28286986.90 -28286986.75 -28286986.56 0.0148 0.0109
 Saturn -82158-06-17 05:16 J -28286619.48 -28286619.28 -28286619.07 0.0271 0.0159
 Uranus -82158-06-20 06:42 J -28286616.42 -28286616.22 -28286616.00 0.0148 0.0088
 Uranus -82157-06-24 07:40 J -28286246.39 -28286246.18 -28286245.96 0.0147 0.0078
 Saturn -82157-06-28 15:06 J -28286242.11 -28286241.87 -28286241.63 0.0273 0.0079
 Jupiter -82157-10-05 23:16 J -28286142.59 -28286142.53 -28286142.45 0.0502 0.0480
 Uranus -82156-06-29 22:32 J -28285875.80 -28285875.56 -28285875.30 0.0147 0.0042
 Saturn -82156-07-11 14:08 J -28285864.15 -28285863.91 -28285863.66 0.0275 0.0018

Uranus	-82155-07-04 23:16 J	-28285505.77	-28285505.53	-28285505.26	0.0147	0.0034
Saturn	-82155-07-25 03:06 J	-28285485.58	-28285485.37	-28285485.15	0.0278	0.0124
Uranus	-82154-07-10 14:23 J	-28285135.15	-28285134.90	-28285134.64	0.0147	0.0006
Saturn	-82154-08-08 00:28 J	-28285106.61	-28285106.48	-28285106.32	0.0281	0.0230
Uranus	-82153-07-14 16:18 J	-28284765.07	-28284764.82	-28284764.55	0.0147	0.0020
Uranus	-82152-07-20 05:01 J	-28284394.54	-28284394.29	-28284394.04	0.0146	0.0028
Jupiter	-82151-03-31 08:23 J	-28284140.35	-28284140.15	-28284139.95	0.0527	0.0282
Uranus	-82151-07-25 09:35 J	-28284024.34	-28284024.10	-28284023.85	0.0146	0.0063
Uranus	-82150-07-30 17:59 J	-28283653.95	-28283653.75	-28283653.52	0.0145	0.0075
Uranus	-82149-08-04 01:54 J	-28283283.61	-28283283.42	-28283283.20	0.0145	0.0095
Uranus	-82148-08-09 06:13 J	-28282913.36	-28282913.24	-28282913.09	0.0144	0.0121
Uranus	-82147-08-14 16:04 J	-28282542.94	-28282542.83	-28282542.67	0.0144	0.0125
Mars	-82146-12-21 02:52 J	-28282049.59	-28282049.38	-28282049.18	0.1964	0.0692
Saturn	-82145-12-15 11:44 J	-28281689.16	-28281689.01	-28281688.86	0.0290	0.0234
Saturn	-82144-12-29 05:01 J	-28281310.52	-28281310.29	-28281310.07	0.0288	0.0121
Saturn	-82142-01-11 14:37 J	-28280932.13	-28280931.89	-28280931.65	0.0285	0.0006
Saturn	-82141-01-24 18:28 J	-28280553.94	-28280553.73	-28280553.51	0.0282	0.0107
Saturn	-82140-02-05 11:59 J	-28280176.16	-28280176.00	-28280175.84	0.0279	0.0203
Saturn	-82139-02-17 15:20 J	-28279798.88	-28279798.86	-28279798.83	0.0276	0.0275
Mars	-82137-06-18 12:56 J	-28278947.05	-28278946.96	-28278946.86	0.1578	0.1374
Saturn	-82130-05-30 13:54 J	-28276410.00	-28276409.92	-28276409.83	0.0268	0.0251
Saturn	-82129-06-10 18:13 J	-28276032.90	-28276032.74	-28276032.57	0.0270	0.0191
Saturn	-82128-06-23 08:37 J	-28275655.35	-28275655.14	-28275654.92	0.0272	0.0118
Saturn	-82127-07-06 03:35 J	-28275277.61	-28275277.35	-28275277.10	0.0274	0.0028
Saturn	-82126-07-19 03:35 J	-28274899.60	-28274899.35	-28274899.10	0.0277	0.0075
Saturn	-82125-07-31 15:35 J	-28274521.03	-28274520.85	-28274520.65	0.0280	0.0184
Uranus	-82120-12-11 16:47 J	-28272561.84	-28272561.80	-28272561.72	0.0131	0.0127
Uranus	-82119-12-15 15:49 J	-28272192.91	-28272192.84	-28272192.73	0.0131	0.0122
Uranus	-82118-12-20 00:13 J	-28271823.64	-28271823.49	-28271823.29	0.0131	0.0097
Uranus	-82117-12-22 22:32 J	-28271454.71	-28271454.56	-28271454.38	0.0131	0.0096

Saturn -82116-12-09 12:42 J -28271103.03 -28271102.97 -28271102.89 0.0292 0.0277
 Uranus -82116-12-27 06:28 J -28271085.45 -28271085.23 -28271085.01 0.0131 0.0069
 Saturn -82115-12-23 18:13 J -28270723.92 -28270723.74 -28270723.54 0.0290 0.0167
 Uranus -82115-12-31 03:49 J -28270716.54 -28270716.34 -28270716.11 0.0131 0.0067
 Uranus -82113-01-04 10:47 J -28270347.29 -28270347.05 -28270346.80 0.0131 0.0044
 Saturn -82113-01-06 11:01 J -28270345.28 -28270345.04 -28270344.80 0.0287 0.0051
 Uranus -82112-01-07 07:54 J -28269978.40 -28269978.17 -28269977.93 0.0132 0.0033
 Saturn -82112-01-18 12:42 J -28269967.21 -28269966.97 -28269966.72 0.0284 0.0065
 Uranus -82111-01-11 13:54 J -28269609.17 -28269608.92 -28269608.66 0.0132 0.0020
 Saturn -82111-01-31 04:32 J -28269589.50 -28269589.31 -28269589.12 0.0281 0.0170
 Uranus -82110-01-15 11:16 J -28269240.28 -28269240.03 -28269239.79 0.0132 0.0003
 Saturn -82110-02-12 16:47 J -28269211.89 -28269211.80 -28269211.70 0.0278 0.0253
 Jupiter -82110-09-21 22:47 J -28268990.74 -28268990.55 -28268990.34 0.0497 0.0293
 Uranus -82109-01-19 17:16 J -28268871.04 -28268870.78 -28268870.52 0.0132 0.0007
 Uranus -82108-01-22 14:52 J -28268502.12 -28268501.88 -28268501.65 0.0133 0.0035
 Uranus -82107-01-26 21:06 J -28268132.86 -28268132.62 -28268132.37 0.0133 0.0036
 Uranus -82106-01-30 19:40 J -28267763.89 -28267763.68 -28267763.46 0.0133 0.0063
 Uranus -82105-02-04 02:23 J -28267394.60 -28267394.40 -28267394.17 0.0134 0.0071
 Uranus -82104-02-07 01:54 J -28267025.59 -28267025.42 -28267025.23 0.0134 0.0088
 Uranus -82103-02-11 09:06 J -28266656.26 -28266656.12 -28266655.95 0.0135 0.0106
 Uranus -82102-02-15 08:52 J -28266287.25 -28266287.13 -28266286.98 0.0135 0.0112
 Saturn -82100-06-06 00:28 J -28265445.63 -28265445.48 -28265445.32 0.0269 0.0214
 Saturn -82099-06-18 00:56 J -28265068.66 -28265068.46 -28265068.24 0.0270 0.0151
 Saturn -82098-06-30 15:35 J -28264691.08 -28264690.85 -28264690.61 0.0273 0.0067
 Jupiter -82098-09-26 11:16 J -28264603.27 -28264603.03 -28264602.80 0.0498 0.0028
 Saturn -82097-07-12 18:56 J -28264312.95 -28264312.71 -28264312.47 0.0275 0.0032
 Saturn -82096-07-26 06:42 J -28263934.43 -28263934.22 -28263933.99 0.0278 0.0139
 Saturn -82095-08-09 00:13 J -28263555.61 -28263555.49 -28263555.36 0.0281 0.0245
 Pluto -82093-07-20 22:32 J -28262843.81 -28262843.56 -28262843.29 0.0066 0.0017
 Jupiter -82092-03-21 03:20 J -28262600.55 -28262600.36 -28262600.17 0.0531 0.0255

Mars -82090-06-14 03:35 J -28261785.55 -28261785.35 -28261785.15 0.1577 0.0101
 Neptune -82088-09-30 05:16 J -28260946.35 -28260946.28 -28260946.19 0.0088 0.0084
 Neptune -82087-10-02 15:49 J -28260578.99 -28260578.84 -28260578.63 0.0088 0.0068
 Jupiter -82086-10-01 11:30 J -28260215.23 -28260215.02 -28260214.81 0.0500 0.0244
 Neptune -82086-10-05 11:59 J -28260211.22 -28260211.00 -28260210.76 0.0088 0.0040
 Saturn -82086-12-17 11:59 J -28260138.15 -28260138.00 -28260137.82 0.0290 0.0216
 Neptune -82085-10-06 20:08 J -28259843.92 -28259843.66 -28259843.40 0.0088 0.0022
 Saturn -82085-12-30 08:52 J -28259759.35 -28259759.13 -28259758.90 0.0288 0.0102
 Neptune -82084-10-09 17:30 J -28259476.03 -28259475.77 -28259475.50 0.0088 0.0006
 Saturn -82083-01-12 22:18 J -28259380.80 -28259380.57 -28259380.33 0.0285 0.0014
 Neptune -82083-10-12 00:28 J -28259108.72 -28259108.48 -28259108.22 0.0088 0.0024
 Saturn -82082-01-26 00:56 J -28259002.66 -28259002.46 -28259002.23 0.0282 0.0125
 Neptune -82082-10-14 20:37 J -28258740.84 -28258740.64 -28258740.39 0.0088 0.0050
 Saturn -82081-02-07 12:28 J -28258625.13 -28258624.98 -28258624.81 0.0279 0.0214
 Neptune -82081-10-16 05:59 J -28258373.39 -28258373.25 -28258373.07 0.0088 0.0069
 Jupiter -82080-03-25 23:16 J -28258212.76 -28258212.53 -28258212.29 0.0529 0.0031
 Uranus -82076-06-10 02:52 J -28256675.52 -28256675.38 -28256675.22 0.0148 0.0121
 Uranus -82075-06-15 05:30 J -28256305.42 -28256305.27 -28256305.10 0.0148 0.0112
 Uranus -82074-06-20 17:16 J -28255934.97 -28255934.78 -28255934.57 0.0148 0.0092
 Jupiter -82074-10-05 23:01 J -28255827.64 -28255827.54 -28255827.44 0.0502 0.0454
 Uranus -82073-06-24 18:28 J -28255564.95 -28255564.73 -28255564.50 0.0147 0.0062
 Uranus -82072-06-30 08:37 J -28255194.37 -28255194.14 -28255193.89 0.0147 0.0054
 Saturn -82071-05-31 14:08 J -28254858.99 -28254858.91 -28254858.79 0.0268 0.0244
 Uranus -82071-07-05 09:06 J -28254824.37 -28254824.12 -28254823.86 0.0147 0.0018
 Saturn -82070-06-12 20:52 J -28254481.79 -28254481.63 -28254481.44 0.0270 0.0182
 Uranus -82070-07-11 00:13 J -28254453.75 -28254453.49 -28254453.24 0.0147 0.0003
 Saturn -82069-06-24 06:28 J -28254104.45 -28254104.23 -28254103.98 0.0272 0.0106
 Uranus -82069-07-15 01:40 J -28254083.69 -28254083.43 -28254083.17 0.0146 0.0015
 Jupiter -82068-03-30 15:35 J -28253825.04 -28253824.85 -28253824.65 0.0527 0.0258
 Saturn -82068-07-06 21:20 J -28253726.86 -28253726.61 -28253726.35 0.0274 0.0015

Uranus	-82068-07-20 15:20 J	-28253713.10	-28253712.86	-28253712.62	0.0146	0.0047
Saturn	-82067-07-19 23:59 J	-28253348.73	-28253348.50	-28253348.26	0.0277	0.0090
Uranus	-82067-07-25 18:42 J	-28253342.95	-28253342.72	-28253342.46	0.0146	0.0055
Uranus	-82066-07-31 05:01 J	-28252972.48	-28252972.29	-28252972.08	0.0145	0.0086
Saturn	-82066-08-02 17:44 J	-28252969.93	-28252969.76	-28252969.59	0.0280	0.0199
Uranus	-82065-08-04 11:30 J	-28252602.19	-28252602.02	-28252601.81	0.0145	0.0104
Uranus	-82064-08-09 17:16 J	-28252231.92	-28252231.78	-28252231.62	0.0144	0.0115
Saturn	-82057-12-10 17:59 J	-28249551.84	-28249551.75	-28249551.64	0.0292	0.0262
Jupiter	-82056-04-04 09:06 J	-28249437.19	-28249437.12	-28249437.05	0.0525	0.0500
Saturn	-82056-12-24 19:54 J	-28249172.88	-28249172.67	-28249172.46	0.0290	0.0148
Saturn	-82054-01-07 08:23 J	-28248794.40	-28248794.15	-28248793.90	0.0287	0.0030
Saturn	-82053-01-20 10:47 J	-28248416.28	-28248416.05	-28248415.82	0.0284	0.0083
Saturn	-82052-02-01 07:40 J	-28248038.34	-28248038.18	-28248037.99	0.0281	0.0184
Saturn	-82051-02-13 21:49 J	-28247660.66	-28247660.59	-28247660.50	0.0278	0.0262
Mars	-82043-06-08 19:11 J	-28244623.85	-28244623.70	-28244623.55	0.1579	0.0951
Saturn	-82042-05-27 00:42 J	-28244271.49	-28244271.47	-28244271.44	0.0267	0.0265
Saturn	-82041-06-06 18:28 J	-28243894.88	-28243894.73	-28243894.57	0.0268	0.0207
Saturn	-82040-06-19 00:13 J	-28243517.68	-28243517.49	-28243517.27	0.0270	0.0140
Saturn	-82039-07-01 19:11 J	-28243139.93	-28243139.70	-28243139.46	0.0273	0.0054
Saturn	-82038-07-14 20:52 J	-28242761.88	-28242761.63	-28242761.38	0.0275	0.0045
Saturn	-82037-07-27 03:35 J	-28242383.56	-28242383.35	-28242383.12	0.0278	0.0154
Saturn	-82036-08-09 18:56 J	-28242004.78	-28242004.71	-28242004.60	0.0282	0.0263
Uranus	-82036-12-12 04:47 J	-28241880.31	-28241880.30	-28241880.26	0.0131	0.0130
Uranus	-82035-12-16 05:01 J	-28241511.40	-28241511.29	-28241511.15	0.0131	0.0112
Uranus	-82034-12-20 12:28 J	-28241142.12	-28241141.98	-28241141.82	0.0131	0.0107
Uranus	-82033-12-23 11:16 J	-28240773.21	-28240773.03	-28240772.82	0.0131	0.0081
Uranus	-82032-12-27 17:30 J	-28240403.96	-28240403.77	-28240403.55	0.0131	0.0079
Uranus	-82031-12-31 16:04 J	-28240035.05	-28240034.83	-28240034.60	0.0131	0.0054
Uranus	-82029-01-04 21:49 J	-28239665.82	-28239665.59	-28239665.34	0.0131	0.0048
Uranus	-82028-01-07 20:08 J	-28239296.89	-28239296.66	-28239296.41	0.0132	0.0029

Uranus -82027-01-12 01:54 J -28238927.67 -28238927.42 -28238927.16 0.0132 0.0012
 Jupiter -82027-09-21 02:08 J -28238675.59 -28238675.41 -28238675.23 0.0496 0.0310
 Saturn -82027-12-18 14:37 J -28238587.05 -28238586.89 -28238586.71 0.0290 0.0201
 Uranus -82026-01-16 00:42 J -28238558.71 -28238558.47 -28238558.23 0.0132 0.0003
 Saturn -82025-01-01 14:52 J -28238208.10 -28238207.88 -28238207.65 0.0288 0.0083
 Uranus -82025-01-20 05:59 J -28238189.50 -28238189.25 -28238188.99 0.0132 0.0023
 Saturn -82024-01-14 03:06 J -28237829.61 -28237829.37 -28237829.13 0.0285 0.0032
 Uranus -82024-01-23 04:47 J -28237820.54 -28237820.30 -28237820.06 0.0133 0.0026
 Saturn -82023-01-27 00:13 J -28237451.70 -28237451.49 -28237451.27 0.0282 0.0137
 Uranus -82023-01-27 10:18 J -28237451.31 -28237451.07 -28237450.84 0.0133 0.0053 *
 Uranus -82022-01-31 09:06 J -28237082.32 -28237082.12 -28237081.89 0.0133 0.0058
 Saturn -82022-02-08 09:06 J -28237074.26 -28237074.12 -28237073.97 0.0279 0.0224
 Uranus -82021-02-04 15:06 J -28236713.06 -28236712.87 -28236712.65 0.0134 0.0081
 Uranus -82020-02-07 14:52 J -28236344.04 -28236343.88 -28236343.69 0.0134 0.0094
 Uranus -82019-02-11 21:20 J -28235974.75 -28235974.61 -28235974.43 0.0135 0.0106
 Uranus -82018-02-15 22:32 J -28235605.62 -28235605.56 -28235605.47 0.0135 0.0128
 Uranus -82017-02-20 06:13 J -28235236.31 -28235236.24 -28235236.16 0.0136 0.0129
 Jupiter -82015-09-26 01:25 J -28234287.69 -28234287.44 -28234287.20 0.0498 0.0032
 Saturn -82012-06-01 17:01 J -28233307.89 -28233307.79 -28233307.67 0.0268 0.0236
 Saturn -82011-06-13 18:42 J -28232930.90 -28232930.72 -28232930.51 0.0270 0.0171
 Mars -82011-06-16 08:37 J -28232928.30 -28232928.14 -28232927.97 0.1577 0.0821
 Saturn -82010-06-25 23:16 J -28232553.76 -28232553.53 -28232553.28 0.0272 0.0094
 Jupiter -82009-03-20 12:56 J -28232285.16 -28232284.96 -28232284.76 0.0531 0.0263
 Saturn -82009-07-07 17:01 J -28232176.04 -28232175.79 -28232175.54 0.0274 0.0002
 Saturn -82008-07-21 00:42 J -28231797.69 -28231797.47 -28231797.25 0.0277 0.0107
 Saturn -82007-08-03 19:11 J -28231418.85 -28231418.70 -28231418.53 0.0280 0.0215
 Pluto -82006-01-25 23:16 J -28231243.78 -28231243.53 -28231243.28 0.0078 0.0001
 Neptune -82005-03-28 19:25 J -28230815.79 -28230815.69 -28230815.57 0.0089 0.0079
 Neptune -82004-03-31 11:16 J -28230448.20 -28230448.03 -28230447.86 0.0089 0.0065
 Neptune -82003-04-02 13:54 J -28230081.13 -28230080.92 -28230080.69 0.0089 0.0036

Jupiter -82003-09-30 14:23 J -28229900.12 -28229899.90 -28229899.69 0.0500 0.0232

Neptune -82002-04-05 03:20 J -28229713.60 -28229713.36 -28229713.10 0.0089 0.0022

Neptune -82001-04-06 10:04 J -28229346.32 -28229346.08 -28229345.84 0.0089 0.0007

82ND MILLENNIUM BCE

This is a list of transits of Moon in the 82nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-82000-04-08 19:11 J	-28228978.95	-28228978.70	-28228978.44	0.0089	0.0021		
Neptune	-81999-04-11 06:56 J	-28228611.39	-28228611.21	-28228610.98	0.0089	0.0050		
Neptune	-81998-04-13 11:44 J	-28228244.17	-28228244.01	-28228243.81	0.0089	0.0064		
Saturn	-81998-12-12 16:18 J	-28228000.94	-28228000.82	-28228000.68	0.0292	0.0248		
Jupiter	-81997-03-25 00:56 J	-28227897.68	-28227897.46	-28227897.24	0.0529	0.0009		
Saturn	-81997-12-25 14:52 J	-28227622.11	-28227621.88	-28227621.66	0.0290	0.0129		
Saturn	-81995-01-08 04:47 J	-28227243.54	-28227243.30	-28227243.06	0.0287	0.0012		
Saturn	-81994-01-21 12:13 J	-28226865.20	-28226864.99	-28226864.77	0.0284	0.0099		
Saturn	-81993-02-03 11:16 J	-28226487.19	-28226487.03	-28226486.85	0.0281	0.0196		
Uranus	-81993-06-05 08:08 J	-28226364.24	-28226364.16	-28226364.06	0.0147	0.0137		
Saturn	-81992-02-14 20:37 J	-28226109.69	-28226109.64	-28226109.57	0.0278	0.0268		
Uranus	-81992-06-10 13:54 J	-28225994.02	-28225993.92	-28225993.79	0.0148	0.0132		
Uranus	-81991-06-15 17:16 J	-28225623.93	-28225623.78	-28225623.59	0.0148	0.0105		
Jupiter	-81991-10-05 16:47 J	-28225511.90	-28225511.80	-28225511.68	0.0501	0.0439		
Uranus	-81990-06-21 03:49 J	-28225253.54	-28225253.34	-28225253.11	0.0148	0.0084		
Uranus	-81989-06-25 05:30 J	-28224883.47	-28224883.27	-28224883.03	0.0147	0.0072		

Uranus	-81988-06-30 19:40 J	-28224512.93	-28224512.68	-28224512.42	0.0147	0.0034
Uranus	-81987-07-05 20:08 J	-28224142.90	-28224142.66	-28224142.40	0.0147	0.0026
Uranus	-81986-07-11 11:30 J	-28223772.28	-28223772.02	-28223771.77	0.0147	0.0003
Jupiter	-81985-03-29 23:01 J	-28223509.75	-28223509.54	-28223509.33	0.0528	0.0213
Uranus	-81985-07-15 12:13 J	-28223402.25	-28223401.99	-28223401.73	0.0146	0.0027
Uranus	-81984-07-21 01:54 J	-28223031.65	-28223031.42	-28223031.16	0.0146	0.0038
Saturn	-81983-05-27 17:30 J	-28222720.81	-28222720.77	-28222720.70	0.0267	0.0261
Uranus	-81983-07-26 04:32 J	-28222661.53	-28222661.31	-28222661.08	0.0146	0.0074
Saturn	-81982-06-08 15:49 J	-28222343.99	-28222343.84	-28222343.68	0.0268	0.0200
Uranus	-81982-07-31 15:35 J	-28222291.05	-28222290.85	-28222290.64	0.0145	0.0084
Saturn	-81981-06-20 02:23 J	-28221966.61	-28221966.40	-28221966.19	0.0270	0.0129
Uranus	-81981-08-04 20:37 J	-28221920.81	-28221920.64	-28221920.45	0.0145	0.0107
Saturn	-81980-07-02 18:28 J	-28221588.97	-28221588.73	-28221588.47	0.0273	0.0041
Uranus	-81980-08-10 03:20 J	-28221550.44	-28221550.36	-28221550.24	0.0144	0.0132
Saturn	-81979-07-15 14:52 J	-28221211.13	-28221210.88	-28221210.62	0.0275	0.0062
Uranus	-81979-08-15 11:16 J	-28221180.11	-28221180.03	-28221179.94	0.0144	0.0136
Saturn	-81978-07-28 21:20 J	-28220832.81	-28220832.61	-28220832.40	0.0278	0.0170
Saturn	-81977-08-10 17:30 J	-28220453.80	-28220453.77	-28220453.71	0.0282	0.0276
Jupiter	-81973-04-03 11:01 J	-28219122.12	-28219122.04	-28219121.95	0.0526	0.0482
Saturn	-81968-12-19 18:56 J	-28217035.88	-28217035.71	-28217035.51	0.0291	0.0184
Saturn	-81966-01-02 17:16 J	-28216657.01	-28216656.78	-28216656.54	0.0288	0.0065
Saturn	-81965-01-16 00:42 J	-28216278.71	-28216278.47	-28216278.22	0.0285	0.0049
Saturn	-81964-01-27 19:54 J	-28215900.88	-28215900.67	-28215900.46	0.0282	0.0153
Mars	-81964-06-10 18:13 J	-28215766.90	-28215766.74	-28215766.58	0.1578	0.0714
Saturn	-81963-02-09 09:49 J	-28215523.21	-28215523.09	-28215522.97	0.0279	0.0235
Saturn	-81953-06-02 15:06 J	-28211756.99	-28211756.87	-28211756.73	0.0268	0.0229
Saturn	-81952-06-14 11:59 J	-28211380.19	-28211380.00	-28211379.79	0.0270	0.0163
Uranus	-81952-12-12 14:52 J	-28211198.94	-28211198.88	-28211198.81	0.0131	0.0127
Saturn	-81951-06-26 20:08 J	-28211002.88	-28211002.66	-28211002.42	0.0272	0.0082
Uranus	-81951-12-16 16:04 J	-28210829.92	-28210829.83	-28210829.71	0.0131	0.0119

Saturn	-81950-07-09 18:42 J	-28210624.95	-28210624.72	-28210624.47	0.0274	0.0019
Uranus	-81950-12-20 22:18 J	-28210460.73	-28210460.57	-28210460.37	0.0131	0.0095
Saturn	-81949-07-22 02:23 J	-28210246.61	-28210246.40	-28210246.17	0.0277	0.0123
Uranus	-81949-12-23 22:32 J	-28210091.71	-28210091.56	-28210091.36	0.0131	0.0093
Saturn	-81948-08-04 16:32 J	-28209867.95	-28209867.81	-28209867.65	0.0280	0.0228
Uranus	-81948-12-28 04:18 J	-28209722.53	-28209722.32	-28209722.07	0.0131	0.0065
Uranus	-81946-01-01 04:32 J	-28209353.52	-28209353.31	-28209353.09	0.0131	0.0062
Uranus	-81945-01-05 09:06 J	-28208984.36	-28208984.12	-28208983.86	0.0132	0.0038
Uranus	-81944-01-08 08:37 J	-28208615.38	-28208615.14	-28208614.90	0.0132	0.0027
Jupiter	-81944-09-20 18:56 J	-28208359.90	-28208359.71	-28208359.52	0.0496	0.0311
Uranus	-81943-01-12 12:56 J	-28208246.22	-28208245.96	-28208245.70	0.0132	0.0012
Uranus	-81942-01-16 12:28 J	-28207877.22	-28207876.98	-28207876.74	0.0132	0.0010
Uranus	-81941-01-20 16:47 J	-28207508.06	-28207507.80	-28207507.54	0.0132	0.0016
Uranus	-81940-01-23 16:32 J	-28207139.03	-28207138.81	-28207138.57	0.0133	0.0044
Uranus	-81939-01-27 21:35 J	-28206769.84	-28206769.60	-28206769.36	0.0133	0.0045
Saturn	-81939-12-13 09:49 J	-28206450.23	-28206450.09	-28206449.93	0.0292	0.0233
Uranus	-81938-01-31 22:04 J	-28206400.77	-28206400.58	-28206400.36	0.0133	0.0073
Saturn	-81938-12-27 11:16 J	-28206071.24	-28206071.03	-28206070.80	0.0290	0.0115
Uranus	-81937-02-05 03:06 J	-28206031.56	-28206031.37	-28206031.15	0.0134	0.0081
Saturn	-81936-01-09 06:13 J	-28205692.48	-28205692.24	-28205692.01	0.0287	0.0006
Uranus	-81936-02-08 04:04 J	-28205662.47	-28205662.33	-28205662.15	0.0134	0.0101
Saturn	-81935-01-22 14:37 J	-28205314.10	-28205313.89	-28205313.66	0.0285	0.0115
Uranus	-81935-02-12 09:49 J	-28205293.21	-28205293.09	-28205292.95	0.0135	0.0116
Saturn	-81934-02-04 09:35 J	-28204936.26	-28204936.10	-28204935.93	0.0281	0.0207
Uranus	-81934-02-16 11:30 J	-28204924.10	-28204924.02	-28204923.91	0.0135	0.0124
Saturn	-81933-02-16 14:08 J	-28204558.95	-28204558.91	-28204558.86	0.0278	0.0273
Mars	-81932-06-18 05:44 J	-28204071.33	-28204071.26	-28204071.19	0.1577	0.1431
Jupiter	-81932-09-25 06:28 J	-28203972.47	-28203972.23	-28203971.98	0.0498	0.0033
Jupiter	-81926-03-20 13:40 J	-28201970.11	-28201969.93	-28201969.75	0.0531	0.0300
Saturn	-81924-05-28 15:49 J	-28201169.90	-28201169.84	-28201169.77	0.0267	0.0255

Saturn -81923-06-09 18:28 J -28200792.89 -28200792.73 -28200792.56 0.0268 0.0195
 Neptune -81923-10-02 03:49 J -28200678.48 -28200678.34 -28200678.16 0.0088 0.0071
 Saturn -81922-06-22 02:08 J -28200415.63 -28200415.41 -28200415.18 0.0270 0.0119
 Neptune -81922-10-04 11:30 J -28200311.22 -28200311.02 -28200310.81 0.0088 0.0055
 Saturn -81921-07-03 12:28 J -28200038.24 -28200037.98 -28200037.72 0.0273 0.0025
 Neptune -81921-10-06 08:52 J -28199943.37 -28199943.13 -28199942.86 0.0088 0.0025
 Saturn -81920-07-16 08:52 J -28199660.37 -28199660.13 -28199659.89 0.0275 0.0079
 Jupiter -81920-09-30 05:16 J -28199584.48 -28199584.28 -28199584.06 0.0499 0.0216
 Neptune -81920-10-08 16:32 J -28199576.06 -28199575.81 -28199575.54 0.0088 0.0011
 Saturn -81919-07-29 19:54 J -28199281.84 -28199281.67 -28199281.48 0.0278 0.0185
 Neptune -81919-10-11 11:59 J -28199208.26 -28199208.00 -28199207.72 0.0088 0.0019
 Neptune -81918-10-13 22:32 J -28198840.79 -28198840.56 -28198840.31 0.0088 0.0033
 Neptune -81917-10-15 13:25 J -28198473.11 -28198472.94 -28198472.73 0.0088 0.0063
 Neptune -81916-10-18 05:01 J -28198105.40 -28198105.29 -28198105.16 0.0088 0.0078
 Jupiter -81914-03-25 13:54 J -28197582.15 -28197581.92 -28197581.69 0.0530 0.0036
 Saturn -81910-12-07 12:56 J -28195864.01 -28195863.96 -28195863.89 0.0293 0.0282
 Saturn -81909-12-20 20:08 J -28195484.86 -28195484.66 -28195484.46 0.0291 0.0169
 Uranus -81908-06-11 02:37 J -28195312.53 -28195312.39 -28195312.21 0.0148 0.0118
 Jupiter -81908-10-04 19:11 J -28195196.83 -28195196.70 -28195196.56 0.0501 0.0414
 Saturn -81907-01-03 13:25 J -28195106.19 -28195105.94 -28195105.69 0.0288 0.0049
 Uranus -81907-06-16 07:25 J -28194942.35 -28194942.19 -28194942.02 0.0148 0.0108
 Saturn -81906-01-16 19:40 J -28194727.92 -28194727.68 -28194727.44 0.0285 0.0067
 Uranus -81906-06-21 16:32 J -28194572.01 -28194571.81 -28194571.58 0.0148 0.0086
 Saturn -81905-01-29 19:11 J -28194349.88 -28194349.70 -28194349.51 0.0282 0.0166
 Uranus -81905-06-25 18:56 J -28194201.93 -28194201.71 -28194201.47 0.0147 0.0056
 Saturn -81904-02-10 12:56 J -28193972.05 -28193971.96 -28193971.83 0.0279 0.0245
 Uranus -81904-07-01 07:40 J -28193831.42 -28193831.18 -28193830.92 0.0147 0.0047
 Uranus -81903-07-06 08:37 J -28193461.40 -28193461.14 -28193460.89 0.0147 0.0010
 Jupiter -81902-03-30 03:49 J -28193194.54 -28193194.34 -28193194.12 0.0528 0.0195
 Uranus -81902-07-11 23:30 J -28193090.78 -28193090.52 -28193090.27 0.0147 0.0005

Uranus	-81901-07-15 23:59 J	-28192720.75	-28192720.50	-28192720.24	0.0146	0.0024
Uranus	-81900-07-21 14:37 J	-28192350.11	-28192349.89	-28192349.64	0.0146	0.0057
Uranus	-81899-07-26 16:32 J	-28191980.04	-28191979.81	-28191979.56	0.0146	0.0065
Uranus	-81898-08-01 04:32 J	-28191609.48	-28191609.31	-28191609.11	0.0145	0.0099
Uranus	-81897-08-05 08:37 J	-28191239.29	-28191239.14	-28191238.96	0.0145	0.0114
Uranus	-81896-08-10 16:32 J	-28190868.92	-28190868.81	-28190868.69	0.0144	0.0128
Saturn	-81894-06-04 08:52 J	-28190206.26	-28190206.13	-28190205.99	0.0268	0.0224
Saturn	-81893-06-15 08:52 J	-28189829.32	-28189829.13	-28189828.93	0.0269	0.0155
Saturn	-81892-06-27 22:32 J	-28189451.79	-28189451.56	-28189451.33	0.0272	0.0067
Saturn	-81891-07-10 20:23 J	-28189073.90	-28189073.65	-28189073.40	0.0274	0.0034
Jupiter	-81890-04-04 05:59 J	-28188806.34	-28188806.25	-28188806.16	0.0526	0.0477
Saturn	-81890-07-23 23:01 J	-28188695.75	-28188695.54	-28188695.31	0.0277	0.0140
Saturn	-81889-08-05 10:04 J	-28188317.19	-28188317.08	-28188316.94	0.0280	0.0245
Mars	-81885-06-12 10:32 J	-28186910.23	-28186910.06	-28186909.88	0.1578	0.0129
Saturn	-81880-12-14 07:25 J	-28184899.33	-28184899.19	-28184899.02	0.0292	0.0221
Saturn	-81879-12-28 13:25 J	-28184520.16	-28184519.94	-28184519.72	0.0290	0.0101
Saturn	-81877-01-11 08:37 J	-28184141.37	-28184141.14	-28184140.90	0.0288	0.0021
Saturn	-81876-01-23 12:56 J	-28183763.17	-28183762.96	-28183762.73	0.0285	0.0128
Saturn	-81875-02-05 03:35 J	-28183385.49	-28183385.35	-28183385.18	0.0281	0.0216
Uranus	-81868-12-13 01:54 J	-28180517.45	-28180517.42	-28180517.35	0.0131	0.0128
Uranus	-81867-12-17 04:18 J	-28180148.43	-28180148.32	-28180148.17	0.0131	0.0111
Uranus	-81866-12-21 09:20 J	-28179779.26	-28179779.11	-28179778.94	0.0131	0.0104
Saturn	-81865-05-29 18:56 J	-28179618.78	-28179618.71	-28179618.62	0.0267	0.0250
Uranus	-81865-12-24 10:32 J	-28179410.25	-28179410.06	-28179409.85	0.0131	0.0077
Saturn	-81864-06-10 19:54 J	-28179241.84	-28179241.67	-28179241.49	0.0268	0.0187
Uranus	-81864-12-28 14:23 J	-28179041.09	-28179040.90	-28179040.66	0.0131	0.0076
Saturn	-81863-06-22 22:04 J	-28178864.81	-28178864.58	-28178864.34	0.0270	0.0107
Uranus	-81862-01-01 15:35 J	-28178672.07	-28178671.85	-28178671.62	0.0131	0.0049
Saturn	-81862-07-05 08:52 J	-28178487.38	-28178487.13	-28178486.88	0.0273	0.0012
Mars	-81862-12-20 02:08 J	-28178319.60	-28178319.41	-28178319.23	0.1964	0.0323

Uranus -81861-01-05 19:11 J -28178302.93 -28178302.70 -28178302.44 0.0132 0.0043
 Saturn -81861-07-17 11:01 J -28178109.26 -28178109.04 -28178108.81 0.0275 0.0096
 Jupiter -81861-09-19 20:23 J -28178044.84 -28178044.65 -28178044.47 0.0496 0.0318
 Uranus -81860-01-08 20:08 J -28177933.89 -28177933.66 -28177933.41 0.0132 0.0022
 Saturn -81860-07-31 00:42 J -28177730.63 -28177730.47 -28177730.30 0.0278 0.0202
 Uranus -81859-01-12 23:59 J -28177564.76 -28177564.50 -28177564.24 0.0132 0.0005
 Uranus -81858-01-17 00:56 J -28177195.70 -28177195.46 -28177195.22 0.0132 0.0006
 Uranus -81857-01-21 03:49 J -28176826.58 -28176826.34 -28176826.07 0.0132 0.0032
 Uranus -81856-01-24 05:16 J -28176457.51 -28176457.28 -28176457.04 0.0133 0.0034
 Uranus -81855-01-28 08:23 J -28176088.36 -28176088.15 -28176087.91 0.0133 0.0063
 Uranus -81854-02-01 09:49 J -28175719.28 -28175719.09 -28175718.87 0.0133 0.0068
 Uranus -81853-02-05 13:25 J -28175350.11 -28175349.94 -28175349.74 0.0134 0.0092
 Uranus -81852-02-08 15:49 J -28174980.98 -28174980.84 -28174980.68 0.0134 0.0104
 Uranus -81851-02-12 20:08 J -28174611.77 -28174611.66 -28174611.52 0.0135 0.0117
 Saturn -81851-12-08 13:25 J -28174313.03 -28174312.94 -28174312.82 0.0293 0.0266
 Saturn -81850-12-22 16:32 J -28173934.02 -28173933.81 -28173933.59 0.0291 0.0152
 Jupiter -81849-09-24 19:54 J -28173656.90 -28173656.67 -28173656.43 0.0497 0.0039
 Saturn -81848-01-04 09:49 J -28173555.33 -28173555.09 -28173554.85 0.0288 0.0032
 Saturn -81847-01-17 20:37 J -28173176.86 -28173176.64 -28173176.41 0.0285 0.0080
 Pluto -81847-07-22 13:25 J -28172991.18 -28172990.94 -28172990.66 0.0066 0.0021
 Saturn -81846-01-30 23:30 J -28172798.69 -28172798.52 -28172798.33 0.0282 0.0178
 Saturn -81845-02-12 14:37 J -28172420.98 -28172420.89 -28172420.78 0.0279 0.0254
 Jupiter -81843-03-20 04:18 J -28171654.51 -28171654.32 -28171654.13 0.0532 0.0308
 Neptune -81841-03-28 12:42 J -28170914.99 -28170914.97 -28170914.95 0.0089 0.0088
 Neptune -81840-03-30 16:04 J -28170547.96 -28170547.83 -28170547.69 0.0089 0.0073
 Neptune -81839-04-02 04:47 J -28170180.49 -28170180.30 -28170180.06 0.0089 0.0047
 Neptune -81838-04-04 12:42 J -28169813.19 -28169812.97 -28169812.74 0.0089 0.0031
 Mars -81838-06-07 18:56 J -28169748.74 -28169748.71 -28169748.66 0.1580 0.1535
 Neptune -81837-04-05 20:52 J -28169445.89 -28169445.63 -28169445.37 0.0089 0.0004
 Jupiter -81837-09-29 08:23 J -28169269.37 -28169269.15 -28169268.92 0.0499 0.0195

Neptune -81836-04-08 08:52 J -28169078.36 -28169078.13 -28169077.88 0.0089 0.0012
 Neptune -81835-04-10 12:56 J -28168711.19 -28168710.96 -28168710.73 0.0089 0.0040
 Saturn -81835-06-05 07:54 J -28168655.30 -28168655.17 -28168655.03 0.0268 0.0218
 Neptune -81834-04-13 04:18 J -28168343.50 -28168343.32 -28168343.10 0.0089 0.0055
 Saturn -81834-06-17 13:11 J -28168278.14 -28168277.95 -28168277.74 0.0269 0.0145
 Neptune -81833-04-14 06:42 J -28167976.29 -28167976.22 -28167976.10 0.0089 0.0082
 Saturn -81833-06-29 02:08 J -28167900.65 -28167900.41 -28167900.16 0.0271 0.0055
 Saturn -81832-07-11 18:13 J -28167522.99 -28167522.74 -28167522.48 0.0274 0.0050
 Jupiter -81831-03-24 18:28 J -28167266.96 -28167266.73 -28167266.51 0.0530 0.0061
 Saturn -81831-07-24 18:42 J -28167144.93 -28167144.72 -28167144.51 0.0277 0.0158
 Saturn -81830-08-07 08:52 J -28166766.20 -28166766.13 -28166766.03 0.0280 0.0260
 Uranus -81825-06-06 09:49 J -28165001.17 -28165001.09 -28165000.98 0.0147 0.0135
 Jupiter -81825-10-04 06:42 J -28164881.35 -28164881.22 -28164881.08 0.0501 0.0400
 Uranus -81824-06-11 13:25 J -28164631.06 -28164630.94 -28164630.81 0.0148 0.0129
 Uranus -81823-06-16 18:42 J -28164260.88 -28164260.72 -28164260.52 0.0148 0.0100
 Uranus -81822-06-22 03:06 J -28163890.59 -28163890.37 -28163890.14 0.0147 0.0079
 Uranus -81821-06-26 06:28 J -28163520.44 -28163520.23 -28163520.00 0.0147 0.0064
 Saturn -81821-12-15 11:30 J -28163348.18 -28163348.02 -28163347.85 0.0292 0.0204
 Uranus -81820-07-01 18:42 J -28163149.97 -28163149.72 -28163149.46 0.0147 0.0028
 Saturn -81820-12-29 16:18 J -28162969.04 -28162968.82 -28162968.59 0.0290 0.0086
 Jupiter -81819-03-29 15:35 J -28162879.06 -28162878.85 -28162878.64 0.0528 0.0162
 Uranus -81819-07-06 20:08 J -28162779.91 -28162779.66 -28162779.40 0.0147 0.0019
 Saturn -81818-01-12 06:56 J -28162590.46 -28162590.21 -28162589.96 0.0288 0.0032
 Uranus -81818-07-12 10:47 J -28162409.30 -28162409.05 -28162408.79 0.0147 0.0012
 Saturn -81817-01-25 07:40 J -28162212.39 -28162212.18 -28162211.96 0.0285 0.0138
 Uranus -81817-07-16 11:16 J -28162039.28 -28162039.03 -28162038.77 0.0146 0.0035
 Saturn -81816-02-06 01:25 J -28161834.58 -28161834.44 -28161834.30 0.0281 0.0226
 Uranus -81816-07-22 01:40 J -28161668.66 -28161668.43 -28161668.18 0.0146 0.0048
 Uranus -81815-07-27 02:52 J -28161298.59 -28161298.38 -28161298.17 0.0145 0.0085
 Uranus -81814-08-01 15:20 J -28160928.04 -28160927.86 -28160927.65 0.0145 0.0095

Uranus -81813-08-05 17:44 J -28160557.89 -28160557.76 -28160557.59 0.0145 0.0120
 Uranus -81812-08-11 02:52 J -28160187.39 -28160187.38 -28160187.33 0.0144 0.0143
 Jupiter -81807-04-03 01:54 J -28158491.55 -28158491.42 -28158491.29 0.0526 0.0437
 Saturn -81806-05-31 22:04 J -28158067.67 -28158067.58 -28158067.47 0.0267 0.0241
 Mars -81806-06-15 05:16 J -28158053.45 -28158053.28 -28158053.10 0.1577 0.0515
 Saturn -81805-06-11 17:01 J -28157690.97 -28157690.79 -28157690.59 0.0268 0.0178
 Saturn -81804-06-23 19:40 J -28157313.90 -28157313.68 -28157313.44 0.0270 0.0098
 Saturn -81803-07-06 12:42 J -28156936.21 -28156935.97 -28156935.73 0.0272 0.0003
 Saturn -81802-07-19 17:16 J -28156558.00 -28156557.78 -28156557.55 0.0275 0.0112
 Saturn -81801-08-01 04:04 J -28156179.48 -28156179.33 -28156179.16 0.0278 0.0217
 Saturn -81792-12-09 10:47 J -28152762.17 -28152762.05 -28152761.90 0.0293 0.0248
 Saturn -81791-12-23 15:20 J -28152383.07 -28152382.86 -28152382.64 0.0291 0.0135
 Saturn -81789-01-06 13:11 J -28152004.19 -28152003.95 -28152003.72 0.0289 0.0019
 Saturn -81788-01-19 02:52 J -28151625.60 -28151625.38 -28151625.16 0.0286 0.0093
 Saturn -81787-02-01 03:06 J -28151247.54 -28151247.37 -28151247.18 0.0282 0.0189
 Saturn -81786-02-13 12:56 J -28150870.04 -28150869.96 -28150869.87 0.0279 0.0261
 Uranus -81784-12-13 10:18 J -28149836.12 -28149836.07 -28149835.98 0.0131 0.0127
 Uranus -81783-12-17 14:08 J -28149467.01 -28149466.91 -28149466.78 0.0131 0.0116
 Mars -81783-12-23 16:47 J -28149460.91 -28149460.80 -28149460.70 0.1965 0.1664
 Uranus -81782-12-21 18:13 J -28149097.92 -28149097.74 -28149097.54 0.0131 0.0092
 Uranus -81781-12-24 20:52 J -28148728.79 -28148728.63 -28148728.43 0.0131 0.0089
 Uranus -81780-12-29 00:13 J -28148359.71 -28148359.49 -28148359.25 0.0131 0.0060
 Uranus -81778-01-02 02:37 J -28147990.60 -28147990.39 -28147990.16 0.0131 0.0058
 Jupiter -81778-09-20 09:20 J -28147729.28 -28147729.11 -28147728.92 0.0495 0.0326
 Uranus -81777-01-06 05:01 J -28147621.54 -28147621.29 -28147621.04 0.0132 0.0032
 Saturn -81777-05-25 15:06 J -28147480.88 -28147480.87 -28147480.82 0.0266 0.0265
 Uranus -81776-01-09 06:42 J -28147252.45 -28147252.22 -28147251.97 0.0132 0.0022
 Saturn -81776-06-06 14:23 J -28147104.04 -28147103.90 -28147103.75 0.0268 0.0209
 Uranus -81775-01-13 08:52 J -28146883.38 -28146883.13 -28146882.86 0.0132 0.0005
 Saturn -81775-06-18 19:54 J -28146726.87 -28146726.67 -28146726.45 0.0269 0.0135

Uranus -81774-01-17 11:01 J -28146514.28 -28146514.04 -28146513.80 0.0132 0.0017
 Saturn -81774-07-01 03:49 J -28146349.59 -28146349.34 -28146349.08 0.0271 0.0040
 Uranus -81773-01-21 13:11 J -28146145.20 -28146144.95 -28146144.69 0.0132 0.0024
 Saturn -81773-07-12 17:59 J -28145971.99 -28145971.75 -28145971.50 0.0274 0.0068
 Uranus -81772-01-24 15:35 J -28145776.06 -28145775.85 -28145775.61 0.0133 0.0052
 Saturn -81772-07-25 22:47 J -28145593.73 -28145593.55 -28145593.35 0.0277 0.0175
 Uranus -81771-01-28 17:59 J -28145406.97 -28145406.75 -28145406.50 0.0133 0.0054
 Saturn -81771-08-08 17:16 J -28145214.81 -28145214.78 -28145214.73 0.0280 0.0275
 Uranus -81770-02-01 20:52 J -28145037.80 -28145037.63 -28145037.43 0.0133 0.0084
 Uranus -81769-02-05 23:16 J -28144668.71 -28144668.53 -28144668.33 0.0134 0.0090
 Uranus -81768-02-09 03:06 J -28144299.50 -28144299.37 -28144299.24 0.0134 0.0111
 Uranus -81767-02-13 05:30 J -28143930.35 -28143930.27 -28143930.16 0.0135 0.0125
 Uranus -81766-02-17 09:49 J -28143561.10 -28143561.09 -28143561.06 0.0135 0.0134
 Jupiter -81766-09-24 23:44 J -28143341.76 -28143341.51 -28143341.27 0.0497 0.0051
 Saturn -81762-12-17 17:16 J -28141796.97 -28141796.78 -28141796.60 0.0292 0.0188
 Saturn -81761-12-30 17:01 J -28141418.03 -28141417.79 -28141417.54 0.0290 0.0071
 Pluto -81760-01-26 15:49 J -28141391.09 -28141390.84 -28141390.57 0.0078 0.0010
 Jupiter -81760-03-19 02:08 J -28141339.58 -28141339.41 -28141339.24 0.0532 0.0338
 Saturn -81759-01-13 04:18 J -28141039.56 -28141039.32 -28141039.07 0.0287 0.0046
 Mars -81759-06-09 18:56 J -28140891.90 -28140891.71 -28140891.53 0.1579 0.0573
 Neptune -81759-10-01 03:49 J -28140778.44 -28140778.34 -28140778.21 0.0088 0.0080
 Saturn -81758-01-26 08:08 J -28140661.36 -28140661.16 -28140660.95 0.0285 0.0149
 Neptune -81758-10-04 00:56 J -28140410.62 -28140410.46 -28140410.25 0.0088 0.0065
 Saturn -81757-02-08 06:13 J -28140283.36 -28140283.24 -28140283.11 0.0281 0.0233
 Neptune -81757-10-05 09:35 J -28140043.32 -28140043.10 -28140042.85 0.0088 0.0037
 Neptune -81756-10-08 04:32 J -28139675.57 -28139675.31 -28139675.04 0.0088 0.0020
 Neptune -81755-10-10 16:47 J -28139308.05 -28139307.80 -28139307.54 0.0088 0.0009
 Jupiter -81754-09-29 19:40 J -28138953.89 -28138953.68 -28138953.46 0.0499 0.0179
 Neptune -81754-10-13 06:28 J -28138940.48 -28138940.23 -28138939.95 0.0088 0.0025
 Neptune -81753-10-14 23:01 J -28138572.74 -28138572.54 -28138572.32 0.0088 0.0052

Neptune -81752-10-17 07:54 J -28138205.32 -28138205.17 -28138204.98 0.0088 0.0069
 Jupiter -81748-03-24 02:37 J -28136951.61 -28136951.39 -28136951.17 0.0530 0.0104
 Saturn -81747-06-01 22:47 J -28136516.67 -28136516.55 -28136516.42 0.0267 0.0232
 Saturn -81746-06-13 17:30 J -28136139.95 -28136139.77 -28136139.56 0.0268 0.0170
 Saturn -81745-06-25 02:23 J -28135762.62 -28135762.40 -28135762.17 0.0270 0.0083
 Saturn -81744-07-07 21:35 J -28135384.85 -28135384.60 -28135384.36 0.0273 0.0018
 Saturn -81743-07-20 22:04 J -28135006.80 -28135006.58 -28135006.34 0.0275 0.0127
 Saturn -81742-08-03 05:01 J -28134628.43 -28134628.29 -28134628.14 0.0278 0.0231
 Jupiter -81742-10-04 14:08 J -28134566.07 -28134565.91 -28134565.74 0.0500 0.0374
 Uranus -81740-06-11 21:49 J -28133949.73 -28133949.59 -28133949.40 0.0148 0.0115
 Uranus -81739-06-17 05:01 J -28133579.45 -28133579.29 -28133579.11 0.0148 0.0105
 Uranus -81738-06-22 11:44 J -28133209.22 -28133209.01 -28133208.78 0.0147 0.0080
 Uranus -81737-06-26 16:18 J -28132839.04 -28132838.82 -28132838.58 0.0147 0.0051
 Jupiter -81736-03-28 13:54 J -28132564.14 -28132563.92 -28132563.69 0.0529 0.0133
 Uranus -81736-07-02 03:06 J -28132468.62 -28132468.37 -28132468.11 0.0147 0.0040
 Uranus -81735-07-07 05:30 J -28132098.52 -28132098.27 -28132098.01 0.0147 0.0003
 Uranus -81734-07-12 19:40 J -28131727.94 -28131727.68 -28131727.42 0.0147 0.0012
 Uranus -81733-07-16 20:37 J -28131357.89 -28131357.64 -28131357.39 0.0146 0.0034
 Saturn -81733-12-10 13:54 J -28131211.05 -28131210.92 -28131210.76 0.0293 0.0232
 Uranus -81732-07-22 11:30 J -28130987.24 -28130987.02 -28130986.78 0.0146 0.0067
 Saturn -81732-12-24 22:04 J -28130831.79 -28130831.58 -28130831.36 0.0291 0.0119
 Uranus -81731-07-27 12:13 J -28130617.20 -28130616.99 -28130616.75 0.0146 0.0075
 Saturn -81730-01-07 21:20 J -28130452.85 -28130452.61 -28130452.38 0.0289 0.0002
 Uranus -81730-08-02 01:40 J -28130246.57 -28130246.43 -28130246.24 0.0145 0.0110
 Saturn -81729-01-21 07:25 J -28130074.41 -28130074.19 -28130073.96 0.0286 0.0107
 Uranus -81729-08-06 03:20 J -28129876.48 -28129876.36 -28129876.21 0.0145 0.0124
 Saturn -81728-02-02 02:37 J -28129696.56 -28129696.39 -28129696.20 0.0282 0.0196
 Uranus -81728-08-11 13:11 J -28129505.99 -28129505.95 -28129505.87 0.0144 0.0140
 Saturn -81727-02-14 12:56 J -28129319.02 -28129318.96 -28129318.90 0.0279 0.0269
 Mars -81727-06-17 07:40 J -28129196.32 -28129196.18 -28129196.04 0.1577 0.1118

Jupiter -81724-04-02 13:11 J -28128176.07 -28128175.95 -28128175.82 0.0527 0.0428
 Saturn -81718-05-27 23:01 J -28125929.59 -28125929.54 -28125929.47 0.0267 0.0258
 Saturn -81717-06-07 23:16 J -28125552.68 -28125552.53 -28125552.36 0.0268 0.0199
 Saturn -81716-06-19 23:59 J -28125175.73 -28125175.50 -28125175.27 0.0269 0.0120
 Saturn -81715-07-02 05:59 J -28124798.51 -28124798.25 -28124798.00 0.0272 0.0025
 Saturn -81714-07-15 01:25 J -28124420.67 -28124420.44 -28124420.21 0.0274 0.0081
 Saturn -81713-07-27 10:32 J -28124042.22 -28124042.06 -28124041.87 0.0277 0.0190
 Saturn -81704-12-04 11:44 J -28120625.06 -28120625.01 -28120624.93 0.0293 0.0282
 Saturn -81703-12-18 19:54 J -28120245.88 -28120245.67 -28120245.47 0.0292 0.0170
 Saturn -81701-01-01 17:44 J -28119867.00 -28119866.76 -28119866.51 0.0290 0.0053
 Saturn -81700-01-14 08:08 J -28119488.40 -28119488.16 -28119487.93 0.0287 0.0060
 Uranus -81700-12-13 19:54 J -28119154.73 -28119154.67 -28119154.58 0.0131 0.0126
 Saturn -81699-01-27 16:18 J -28119110.01 -28119109.82 -28119109.63 0.0284 0.0159
 Uranus -81699-12-18 00:42 J -28118785.58 -28118785.47 -28118785.31 0.0131 0.0109
 Saturn -81698-02-09 13:40 J -28118732.04 -28118731.93 -28118731.80 0.0281 0.0241
 Uranus -81698-12-22 02:37 J -28118416.53 -28118416.39 -28118416.19 0.0131 0.0101
 Uranus -81697-12-25 06:56 J -28118047.40 -28118047.21 -28118046.99 0.0131 0.0074
 Uranus -81696-12-29 08:37 J -28117678.34 -28117678.14 -28117677.91 0.0131 0.0072
 Jupiter -81695-09-19 11:44 J -28117414.19 -28117414.01 -28117413.83 0.0496 0.0335
 Uranus -81694-01-02 12:28 J -28117309.21 -28117308.98 -28117308.75 0.0131 0.0044
 Uranus -81693-01-06 13:54 J -28116940.17 -28116939.92 -28116939.67 0.0131 0.0038
 Uranus -81692-01-09 17:30 J -28116571.01 -28116570.77 -28116570.53 0.0132 0.0015
 Uranus -81691-01-13 18:42 J -28116201.98 -28116201.72 -28116201.46 0.0132 0.0001
 Uranus -81690-01-17 22:18 J -28115832.81 -28115832.57 -28115832.33 0.0132 0.0014
 Uranus -81689-01-21 22:47 J -28115463.79 -28115463.55 -28115463.30 0.0132 0.0038
 Uranus -81688-01-25 02:23 J -28115094.62 -28115094.40 -28115094.17 0.0133 0.0043
 Saturn -81688-06-03 00:28 J -28114965.61 -28114965.48 -28114965.34 0.0267 0.0225
 Uranus -81687-01-29 02:37 J -28114725.59 -28114725.39 -28114725.16 0.0133 0.0072
 Saturn -81687-06-15 01:54 J -28114588.60 -28114588.42 -28114588.21 0.0268 0.0157
 Uranus -81686-02-02 06:28 J -28114356.41 -28114356.23 -28114356.02 0.0133 0.0077

Saturn -81686-06-27 13:54 J -28114211.15 -28114210.92 -28114210.68 0.0270 0.0068
 Uranus -81685-02-06 07:40 J -28113987.34 -28113987.18 -28113987.01 0.0134 0.0102
 Saturn -81685-07-09 05:59 J -28113833.50 -28113833.25 -28113833.00 0.0273 0.0033
 Uranus -81684-02-09 12:13 J -28113618.10 -28113617.99 -28113617.84 0.0134 0.0112
 Saturn -81684-07-22 02:23 J -28113455.61 -28113455.40 -28113455.16 0.0275 0.0143
 Uranus -81683-02-13 14:23 J -28113248.98 -28113248.90 -28113248.82 0.0135 0.0127
 Saturn -81683-08-04 11:01 J -28113077.14 -28113077.04 -28113076.92 0.0279 0.0248
 Jupiter -81683-09-24 05:30 J -28113026.50 -28113026.27 -28113026.04 0.0497 0.0069
 Mars -81680-06-12 00:56 J -28112034.65 -28112034.46 -28112034.26 0.1578 0.0300
 Jupiter -81677-03-18 10:47 J -28111024.20 -28111024.05 -28111023.89 0.0532 0.0371
 Neptune -81676-03-30 06:28 J -28110647.33 -28110647.23 -28110647.07 0.0089 0.0077
 Neptune -81675-04-01 14:52 J -28110280.04 -28110279.88 -28110279.70 0.0089 0.0062
 Neptune -81674-04-03 22:32 J -28109912.79 -28109912.56 -28109912.32 0.0089 0.0034
 Saturn -81674-12-13 02:37 J -28109659.54 -28109659.39 -28109659.22 0.0293 0.0217
 Neptune -81673-04-05 11:44 J -28109545.24 -28109545.01 -28109544.76 0.0089 0.0019
 Saturn -81673-12-26 10:47 J -28109280.27 -28109280.05 -28109279.82 0.0291 0.0100
 Neptune -81672-04-07 15:20 J -28109178.11 -28109177.86 -28109177.61 0.0089 0.0009
 Saturn -81671-01-09 06:28 J -28108901.48 -28108901.23 -28108900.99 0.0288 0.0015
 Neptune -81671-04-10 06:56 J -28108810.44 -28108810.21 -28108809.95 0.0089 0.0023
 Jupiter -81671-09-28 23:16 J -28108638.76 -28108638.53 -28108638.29 0.0498 0.0148
 Saturn -81670-01-22 11:01 J -28108523.27 -28108523.04 -28108522.81 0.0285 0.0119
 Neptune -81670-04-12 09:49 J -28108443.29 -28108443.09 -28108442.89 0.0089 0.0051
 Saturn -81669-02-04 05:44 J -28108145.42 -28108145.26 -28108145.09 0.0282 0.0206
 Neptune -81669-04-14 00:28 J -28108075.63 -28108075.48 -28108075.28 0.0089 0.0065
 Saturn -81668-02-15 20:23 J -28107767.67 -28107767.65 -28107767.62 0.0279 0.0277
 Jupiter -81665-03-23 00:42 J -28106636.69 -28106636.47 -28106636.24 0.0531 0.0134
 Saturn -81659-05-29 11:01 J -28104378.12 -28104378.04 -28104377.96 0.0267 0.0249
 Jupiter -81659-10-03 11:16 J -28104251.20 -28104251.03 -28104250.86 0.0500 0.0343
 Saturn -81658-06-10 06:28 J -28104001.40 -28104001.23 -28104001.04 0.0268 0.0185
 Uranus -81657-06-07 03:06 J -28103638.47 -28103638.37 -28103638.26 0.0147 0.0134

Saturn	-81657-06-21 04:32 J	-28103624.54	-28103624.31	-28103624.07	0.0270	0.0105
Uranus	-81656-06-12 03:35 J	-28103268.47	-28103268.35	-28103268.22	0.0147	0.0128
Saturn	-81656-07-03 15:35 J	-28103247.09	-28103246.85	-28103246.61	0.0272	0.0008
Uranus	-81655-06-17 11:44 J	-28102898.18	-28102898.01	-28102897.81	0.0147	0.0096
Saturn	-81655-07-16 15:35 J	-28102869.07	-28102868.85	-28102868.62	0.0274	0.0099
Uranus	-81654-06-22 17:16 J	-28102528.00	-28102527.78	-28102527.55	0.0147	0.0077
Saturn	-81654-07-29 23:59 J	-28102490.65	-28102490.50	-28102490.32	0.0277	0.0205
Jupiter	-81653-03-28 00:56 J	-28102248.68	-28102248.46	-28102248.25	0.0529	0.0111
Uranus	-81653-06-26 23:30 J	-28102157.74	-28102157.52	-28102157.29	0.0147	0.0058
Uranus	-81652-07-02 09:20 J	-28101787.37	-28101787.11	-28101786.84	0.0147	0.0022
Uranus	-81651-07-07 13:11 J	-28101417.20	-28101416.95	-28101416.70	0.0147	0.0013
Uranus	-81650-07-13 02:23 J	-28101046.66	-28101046.40	-28101046.14	0.0147	0.0019
Uranus	-81649-07-17 03:35 J	-28100676.59	-28100676.35	-28100676.10	0.0146	0.0043
Uranus	-81648-07-22 18:13 J	-28100305.97	-28100305.74	-28100305.50	0.0146	0.0057
Uranus	-81647-07-27 18:28 J	-28099935.92	-28099935.73	-28099935.53	0.0146	0.0095
Uranus	-81646-08-02 08:08 J	-28099565.31	-28099565.16	-28099564.96	0.0145	0.0105
Uranus	-81645-08-06 08:52 J	-28099195.23	-28099195.13	-28099195.01	0.0145	0.0131
Saturn	-81645-12-05 18:13 J	-28099073.83	-28099073.74	-28099073.63	0.0293	0.0267
Saturn	-81644-12-20 01:11 J	-28098694.66	-28098694.45	-28098694.24	0.0292	0.0152
Saturn	-81642-01-03 01:25 J	-28098315.67	-28098315.44	-28098315.20	0.0290	0.0037
Saturn	-81641-01-16 18:42 J	-28097936.94	-28097936.72	-28097936.49	0.0287	0.0074
Jupiter	-81641-04-01 15:35 J	-28097861.00	-28097860.85	-28097860.70	0.0527	0.0400
Saturn	-81640-01-29 01:40 J	-28097558.61	-28097558.43	-28097558.23	0.0284	0.0171
Saturn	-81639-02-10 17:44 J	-28097180.87	-28097180.76	-28097180.65	0.0281	0.0247
Mars	-81633-06-06 17:01 J	-28094872.90	-28094872.79	-28094872.68	0.1581	0.1278
Saturn	-81629-06-04 08:52 J	-28093414.26	-28093414.13	-28093413.98	0.0267	0.0216
Saturn	-81628-06-16 14:52 J	-28093037.08	-28093036.88	-28093036.67	0.0269	0.0143
Saturn	-81627-06-28 23:44 J	-28092659.76	-28092659.51	-28092659.26	0.0271	0.0052
Saturn	-81626-07-11 12:13 J	-28092282.24	-28092281.99	-28092281.73	0.0273	0.0052
Saturn	-81625-07-23 11:30 J	-28091904.22	-28091904.02	-28091903.81	0.0276	0.0158

Saturn	-81624-08-06 01:25 J	-28091525.51	-28091525.44	-28091525.35	0.0279	0.0261
Uranus	-81616-12-14 03:20 J	-28088473.41	-28088473.36	-28088473.27	0.0131	0.0126
Saturn	-81615-12-14 17:44 J	-28088107.93	-28088107.76	-28088107.57	0.0293	0.0199
Uranus	-81615-12-18 09:49 J	-28088104.20	-28088104.09	-28088103.95	0.0131	0.0113
Uranus	-81614-12-22 11:01 J	-28087735.20	-28087735.04	-28087734.82	0.0131	0.0091
Saturn	-81614-12-28 21:35 J	-28087728.83	-28087728.60	-28087728.36	0.0291	0.0082
Uranus	-81613-12-25 16:47 J	-28087365.96	-28087365.80	-28087365.59	0.0131	0.0086
Saturn	-81612-01-10 12:28 J	-28087350.22	-28087349.98	-28087349.73	0.0288	0.0032
Jupiter	-81612-09-18 15:35 J	-28087099.01	-28087098.85	-28087098.69	0.0495	0.0356
Uranus	-81612-12-29 17:44 J	-28086996.99	-28086996.76	-28086996.51	0.0131	0.0057
Saturn	-81611-01-23 17:01 J	-28086972.00	-28086971.79	-28086971.57	0.0285	0.0135
Uranus	-81610-01-02 22:47 J	-28086627.77	-28086627.55	-28086627.32	0.0131	0.0054
Saturn	-81610-02-05 16:18 J	-28086593.96	-28086593.82	-28086593.67	0.0282	0.0218
Uranus	-81609-01-06 22:32 J	-28086258.81	-28086258.56	-28086258.30	0.0131	0.0026
Uranus	-81608-01-10 03:20 J	-28085889.60	-28085889.36	-28085889.11	0.0132	0.0016
Uranus	-81607-01-14 03:06 J	-28085520.63	-28085520.37	-28085520.11	0.0132	0.0004
Uranus	-81606-01-18 07:40 J	-28085151.41	-28085151.18	-28085150.94	0.0132	0.0023
Uranus	-81605-01-22 07:25 J	-28084782.44	-28084782.19	-28084781.94	0.0132	0.0032
Uranus	-81604-01-25 12:28 J	-28084413.19	-28084412.98	-28084412.76	0.0133	0.0059
Uranus	-81603-01-29 11:44 J	-28084044.22	-28084044.01	-28084043.77	0.0133	0.0063
Uranus	-81602-02-02 17:16 J	-28083674.94	-28083674.78	-28083674.60	0.0133	0.0093
Uranus	-81601-02-06 16:47 J	-28083305.96	-28083305.80	-28083305.61	0.0134	0.0098
Mars	-81601-06-14 04:18 J	-28083177.50	-28083177.32	-28083177.14	0.1577	0.0560
Pluto	-81601-07-23 07:40 J	-28083138.39	-28083138.18	-28083137.93	0.0066	0.0031
Uranus	-81600-02-09 22:32 J	-28082936.64	-28082936.56	-28082936.43	0.0134	0.0121
Saturn	-81600-05-30 19:54 J	-28082826.77	-28082826.67	-28082826.56	0.0267	0.0239
Jupiter	-81600-09-23 07:11 J	-28082711.45	-28082711.20	-28082710.96	0.0496	0.0096
Uranus	-81599-02-13 23:01 J	-28082567.57	-28082567.54	-28082567.49	0.0135	0.0133
Saturn	-81599-06-11 12:28 J	-28082450.17	-28082449.98	-28082449.78	0.0268	0.0174
Saturn	-81598-06-23 15:49 J	-28082073.07	-28082072.84	-28082072.61	0.0270	0.0090

Saturn -81597-07-05 07:54 J -28081695.41 -28081695.17 -28081694.92 0.0272 0.0012
 Saturn -81596-07-18 07:25 J -28081317.41 -28081317.19 -28081316.96 0.0275 0.0115
 Saturn -81595-07-31 11:59 J -28080939.15 -28080939.00 -28080938.84 0.0277 0.0219
 Jupiter -81594-03-18 09:20 J -28080709.26 -28080709.11 -28080708.96 0.0533 0.0399
 Neptune -81594-10-03 03:35 J -28080510.50 -28080510.35 -28080510.17 0.0088 0.0067
 Neptune -81593-10-04 20:52 J -28080142.85 -28080142.63 -28080142.40 0.0088 0.0051
 Neptune -81592-10-07 10:32 J -28079775.31 -28079775.06 -28079774.81 0.0088 0.0023
 Neptune -81591-10-09 23:01 J -28079407.81 -28079407.54 -28079407.27 0.0088 0.0007
 Neptune -81590-10-12 17:01 J -28079040.03 -28079039.79 -28079039.53 0.0088 0.0021
 Neptune -81589-10-14 01:54 J -28078672.66 -28078672.42 -28078672.17 0.0088 0.0035
 Jupiter -81588-09-27 21:06 J -28078323.85 -28078323.62 -28078323.39 0.0498 0.0114
 Neptune -81588-10-16 22:32 J -28078304.71 -28078304.56 -28078304.36 0.0088 0.0065
 Neptune -81587-10-19 05:16 J -28077937.36 -28077937.28 -28077937.13 0.0088 0.0080
 Saturn -81586-12-08 05:59 J -28077522.37 -28077522.25 -28077522.12 0.0293 0.0250
 Saturn -81585-12-21 15:20 J -28077143.06 -28077142.86 -28077142.64 0.0291 0.0136
 Saturn -81583-01-04 17:44 J -28076763.99 -28076763.76 -28076763.52 0.0289 0.0020
 Saturn -81582-01-18 09:06 J -28076385.35 -28076385.12 -28076384.89 0.0287 0.0091
 Jupiter -81582-03-23 07:54 J -28076321.38 -28076321.17 -28076320.97 0.0531 0.0169
 Saturn -81581-01-31 10:04 J -28076007.27 -28076007.08 -28076006.89 0.0284 0.0183
 Saturn -81580-02-11 22:04 J -28075629.67 -28075629.58 -28075629.47 0.0281 0.0255
 Mars -81578-12-18 17:16 J -28074590.00 -28074589.78 -28074589.55 0.1963 0.0202
 Jupiter -81576-10-02 21:20 J -28073935.80 -28073935.61 -28073935.43 0.0500 0.0317
 Uranus -81572-06-12 09:35 J -28072587.25 -28072587.10 -28072586.91 0.0147 0.0113
 Saturn -81571-05-25 22:32 J -28072239.57 -28072239.56 -28072239.52 0.0267 0.0265
 Uranus -81571-06-17 19:25 J -28072216.86 -28072216.69 -28072216.51 0.0147 0.0104
 Jupiter -81570-03-27 23:01 J -28071933.78 -28071933.54 -28071933.31 0.0529 0.0072
 Saturn -81570-06-06 22:32 J -28071862.70 -28071862.56 -28071862.39 0.0268 0.0206
 Uranus -81570-06-22 22:47 J -28071846.77 -28071846.55 -28071846.31 0.0147 0.0074
 Saturn -81569-06-18 02:08 J -28071485.62 -28071485.41 -28071485.18 0.0269 0.0129
 Uranus -81569-06-27 06:28 J -28071476.46 -28071476.23 -28071475.99 0.0147 0.0047

Saturn	-81568-06-30 06:42 J	-28071108.47	-28071108.22	-28071107.96	0.0271	0.0034
Uranus	-81568-07-02 14:23 J	-28071106.16	-28071105.90	-28071105.64	0.0147	0.0035
Uranus	-81567-07-07 19:25 J	-28070735.94	-28070735.69	-28070735.44	0.0147	0.0003
Saturn	-81567-07-12 21:49 J	-28070730.83	-28070730.59	-28070730.35	0.0273	0.0071
Uranus	-81566-07-13 07:25 J	-28070365.45	-28070365.19	-28070364.93	0.0147	0.0017
Saturn	-81566-07-26 02:52 J	-28070352.55	-28070352.38	-28070352.18	0.0276	0.0175
Uranus	-81565-07-17 09:20 J	-28069995.34	-28069995.11	-28069994.86	0.0146	0.0043
Saturn	-81565-08-07 19:54 J	-28069973.70	-28069973.67	-28069973.63	0.0279	0.0275
Uranus	-81564-07-22 23:44 J	-28069624.72	-28069624.51	-28069624.27	0.0146	0.0074
Uranus	-81563-07-28 00:13 J	-28069254.69	-28069254.49	-28069254.26	0.0146	0.0084
Uranus	-81562-08-02 14:23 J	-28068884.02	-28068883.90	-28068883.73	0.0145	0.0121
Uranus	-81561-08-06 14:23 J	-28068514.00	-28068513.90	-28068513.78	0.0145	0.0132
Jupiter	-81558-04-01 11:16 J	-28067546.18	-28067546.03	-28067545.87	0.0528	0.0371
Saturn	-81557-12-01 21:06 J	-28066935.63	-28066935.62	-28066935.61	0.0294	0.0293
Saturn	-81556-12-16 07:54 J	-28066556.36	-28066556.17	-28066555.96	0.0292	0.0182
Saturn	-81555-12-30 07:11 J	-28066177.45	-28066177.20	-28066176.95	0.0290	0.0063
Mars	-81554-06-09 14:08 J	-28066016.04	-28066015.91	-28066015.78	0.1580	0.1084
Saturn	-81553-01-12 21:20 J	-28065798.85	-28065798.61	-28065798.37	0.0288	0.0050
Saturn	-81552-01-25 05:30 J	-28065420.47	-28065420.27	-28065420.07	0.0285	0.0150
Saturn	-81551-02-07 06:28 J	-28065042.36	-28065042.23	-28065042.09	0.0282	0.0230
Saturn	-81541-06-01 01:54 J	-28061275.55	-28061275.42	-28061275.30	0.0267	0.0230
Saturn	-81540-06-12 22:04 J	-28060898.76	-28060898.58	-28060898.37	0.0268	0.0163
Saturn	-81539-06-25 07:40 J	-28060521.40	-28060521.18	-28060520.95	0.0270	0.0074
Saturn	-81538-07-07 23:59 J	-28060143.74	-28060143.50	-28060143.25	0.0272	0.0029
Saturn	-81537-07-19 19:54 J	-28059765.89	-28059765.67	-28059765.44	0.0275	0.0133
Saturn	-81536-08-01 23:44 J	-28059387.64	-28059387.51	-28059387.37	0.0278	0.0236
Uranus	-81532-12-14 12:13 J	-28057792.06	-28057791.99	-28057791.88	0.0131	0.0124
Uranus	-81531-12-18 20:23 J	-28057422.79	-28057422.65	-28057422.51	0.0131	0.0108
Uranus	-81530-12-22 19:54 J	-28057053.84	-28057053.67	-28057053.49	0.0131	0.0097
Jupiter	-81529-09-17 16:32 J	-28056783.97	-28056783.81	-28056783.65	0.0495	0.0378

Uranus	-81529-12-26 02:52 J	-28056684.58	-28056684.38	-28056684.17	0.0131	0.0072
Uranus	-81528-12-30 02:23 J	-28056315.62	-28056315.40	-28056315.17	0.0131	0.0068
Saturn	-81527-12-09 23:30 J	-28055970.65	-28055970.52	-28055970.37	0.0293	0.0234
Uranus	-81526-01-03 08:52 J	-28055946.36	-28055946.13	-28055945.90	0.0131	0.0039
Saturn	-81526-12-24 10:18 J	-28055591.28	-28055591.07	-28055590.85	0.0291	0.0118
Uranus	-81525-01-07 07:54 J	-28055577.41	-28055577.17	-28055576.91	0.0131	0.0033
Saturn	-81524-01-06 10:18 J	-28055212.31	-28055212.07	-28055211.83	0.0289	0.0002
Uranus	-81524-01-10 14:23 J	-28055208.14	-28055207.90	-28055207.65	0.0132	0.0008
Uranus	-81523-01-14 13:11 J	-28054839.21	-28054838.95	-28054838.69	0.0132	0.0006
Saturn	-81523-01-19 20:08 J	-28054833.89	-28054833.66	-28054833.43	0.0286	0.0106
Uranus	-81522-01-18 19:11 J	-28054469.94	-28054469.70	-28054469.46	0.0132	0.0021
Saturn	-81522-02-01 17:01 J	-28054455.96	-28054455.79	-28054455.60	0.0283	0.0195
Mars	-81522-06-16 22:47 J	-28054320.68	-28054320.55	-28054320.41	0.1577	0.0999
Uranus	-81521-01-22 17:01 J	-28054101.02	-28054100.79	-28054100.54	0.0132	0.0045
Saturn	-81521-02-14 08:23 J	-28054078.22	-28054078.15	-28054078.08	0.0280	0.0267
Uranus	-81520-01-25 23:16 J	-28053731.75	-28053731.53	-28053731.31	0.0133	0.0051
Uranus	-81519-01-29 21:20 J	-28053362.81	-28053362.61	-28053362.40	0.0133	0.0080
Uranus	-81518-02-03 03:35 J	-28052993.53	-28052993.35	-28052993.16	0.0133	0.0085
Uranus	-81517-02-07 01:54 J	-28052624.53	-28052624.42	-28052624.26	0.0134	0.0113
Jupiter	-81517-09-22 04:47 J	-28052396.53	-28052396.30	-28052396.08	0.0496	0.0123
Uranus	-81516-02-10 09:35 J	-28052255.19	-28052255.10	-28052254.98	0.0134	0.0120
Pluto	-81514-01-28 02:52 J	-28051538.58	-28051538.38	-28051538.16	0.0079	0.0041
Neptune	-81512-03-29 18:56 J	-28050746.75	-28050746.71	-28050746.62	0.0089	0.0085
Saturn	-81512-05-27 11:16 J	-28050688.08	-28050688.03	-28050687.95	0.0267	0.0255
Jupiter	-81511-03-17 13:40 J	-28050394.05	-28050393.93	-28050393.80	0.0533	0.0439
Neptune	-81511-04-01 01:54 J	-28050379.57	-28050379.42	-28050379.25	0.0089	0.0070
Saturn	-81511-06-08 10:18 J	-28050311.24	-28050311.07	-28050310.89	0.0268	0.0193
Neptune	-81510-04-03 15:20 J	-28050012.06	-28050011.86	-28050011.63	0.0089	0.0043
Saturn	-81510-06-20 09:20 J	-28049934.34	-28049934.11	-28049933.88	0.0269	0.0113
Neptune	-81509-04-04 18:28 J	-28049644.96	-28049644.73	-28049644.48	0.0089	0.0029

Saturn -81509-07-01 16:04 J -28049557.08 -28049556.83 -28049556.58 0.0271 0.0017
 Neptune -81508-04-07 10:32 J -28049277.31 -28049277.06 -28049276.81 0.0089 0.0002
 Saturn -81508-07-14 13:25 J -28049179.17 -28049178.94 -28049178.71 0.0274 0.0089
 Neptune -81507-04-09 12:56 J -28048910.20 -28048909.96 -28048909.71 0.0089 0.0014
 Saturn -81507-07-27 21:20 J -28048800.78 -28048800.61 -28048800.43 0.0276 0.0193
 Neptune -81506-04-12 03:20 J -28048542.57 -28048542.36 -28048542.12 0.0089 0.0041
 Neptune -81505-04-13 09:20 J -28048175.29 -28048175.11 -28048174.91 0.0089 0.0056
 Jupiter -81505-09-27 03:20 J -28048008.60 -28048008.36 -28048008.12 0.0497 0.0080
 Neptune -81504-04-15 19:25 J -28047807.75 -28047807.69 -28047807.57 0.0089 0.0083
 Jupiter -81499-03-22 02:23 J -28046006.61 -28046006.40 -28046006.18 0.0532 0.0216
 Mars -81499-12-23 00:56 J -28045730.60 -28045730.46 -28045730.33 0.1964 0.1397
 Saturn -81498-12-04 13:11 J -28045384.03 -28045383.95 -28045383.85 0.0294 0.0274
 Saturn -81497-12-17 20:52 J -28045004.83 -28045004.63 -28045004.41 0.0292 0.0161
 Saturn -81496-12-31 20:37 J -28044625.89 -28044625.64 -28044625.40 0.0290 0.0044
 Saturn -81494-01-14 13:40 J -28044247.15 -28044246.93 -28044246.70 0.0288 0.0068
 Saturn -81493-01-27 22:32 J -28043868.74 -28043868.56 -28043868.36 0.0285 0.0167
 Jupiter -81493-10-01 12:28 J -28043621.18 -28043620.98 -28043620.78 0.0499 0.0284
 Saturn -81492-02-08 19:25 J -28043490.80 -28043490.69 -28043490.56 0.0282 0.0245
 Uranus -81489-06-07 18:56 J -28042275.80 -28042275.71 -28042275.60 0.0147 0.0134
 Uranus -81488-06-12 17:30 J -28041905.90 -28041905.77 -28041905.64 0.0147 0.0127
 Jupiter -81487-03-26 19:40 J -28041618.90 -28041618.68 -28041618.46 0.0530 0.0035
 Uranus -81487-06-18 04:04 J -28041535.52 -28041535.33 -28041535.13 0.0147 0.0092
 Uranus -81486-06-23 06:28 J -28041165.45 -28041165.23 -28041165.00 0.0147 0.0074
 Uranus -81485-06-27 15:20 J -28040795.08 -28040794.86 -28040794.62 0.0147 0.0053
 Uranus -81484-07-02 22:18 J -28040424.83 -28040424.57 -28040424.30 0.0147 0.0018
 Uranus -81483-07-08 04:47 J -28040054.55 -28040054.30 -28040054.05 0.0147 0.0008
 Saturn -81482-06-03 10:04 J -28039724.20 -28039724.08 -28039723.93 0.0267 0.0221
 Uranus -81482-07-13 15:06 J -28039684.13 -28039683.87 -28039683.61 0.0147 0.0027
 Saturn -81481-06-14 13:11 J -28039347.15 -28039346.95 -28039346.75 0.0269 0.0148
 Uranus -81481-07-17 17:44 J -28039313.98 -28039313.76 -28039313.51 0.0146 0.0050

Saturn	-81480-06-26 22:47 J	-28038969.79	-28038969.55	-28038969.31	0.0270	0.0059
Uranus	-81480-07-23 06:56 J	-28038943.43	-28038943.21	-28038942.96	0.0146	0.0067
Saturn	-81479-07-09 10:47 J	-28038592.30	-28038592.05	-28038591.79	0.0273	0.0047
Uranus	-81479-07-28 07:40 J	-28038573.36	-28038573.18	-28038573.00	0.0146	0.0104
Saturn	-81478-07-22 05:59 J	-28038214.46	-28038214.25	-28038214.03	0.0275	0.0154
Uranus	-81478-08-02 21:35 J	-28038202.75	-28038202.60	-28038202.43	0.0145	0.0112
Saturn	-81477-08-03 14:37 J	-28037835.98	-28037835.89	-28037835.78	0.0278	0.0253
Uranus	-81477-08-06 20:52 J	-28037832.67	-28037832.63	-28037832.57	0.0145	0.0142
Jupiter	-81475-03-31 20:23 J	-28037230.82	-28037230.65	-28037230.48	0.0529	0.0347
Mars	-81475-06-11 06:13 J	-28037159.41	-28037159.24	-28037159.06	0.1579	0.0172
Saturn	-81468-12-11 21:35 J	-28034418.75	-28034418.60	-28034418.43	0.0292	0.0214
Saturn	-81467-12-26 05:16 J	-28034039.50	-28034039.28	-28034039.05	0.0291	0.0098
Saturn	-81465-01-08 23:16 J	-28033660.78	-28033660.53	-28033660.28	0.0288	0.0017
Saturn	-81464-01-21 05:16 J	-28033282.50	-28033282.28	-28033282.05	0.0286	0.0121
Saturn	-81463-02-03 04:04 J	-28032904.47	-28032904.33	-28032904.16	0.0283	0.0211
Saturn	-81462-02-15 22:32 J	-28032526.56	-28032526.56	-28032526.53	0.0280	0.0279
Saturn	-81453-05-28 22:18 J	-28029136.67	-28029136.57	-28029136.46	0.0267	0.0242
Saturn	-81452-06-09 15:49 J	-28028760.02	-28028759.84	-28028759.65	0.0268	0.0180
Saturn	-81451-06-21 15:49 J	-28028383.07	-28028382.84	-28028382.60	0.0270	0.0099
Saturn	-81450-07-04 05:16 J	-28028005.52	-28028005.28	-28028005.04	0.0272	0.0003
Saturn	-81449-07-16 05:44 J	-28027627.47	-28027627.26	-28027627.03	0.0274	0.0108
Saturn	-81448-07-29 11:44 J	-28027249.16	-28027249.01	-28027248.84	0.0277	0.0210
Uranus	-81448-12-14 19:25 J	-28027110.74	-28027110.69	-28027110.60	0.0131	0.0127
Uranus	-81447-12-19 04:47 J	-28026741.42	-28026741.30	-28026741.15	0.0131	0.0110
Jupiter	-81446-09-17 13:40 J	-28026469.07	-28026468.93	-28026468.80	0.0494	0.0400
Uranus	-81446-12-23 04:04 J	-28026372.51	-28026372.33	-28026372.12	0.0131	0.0089
Uranus	-81445-12-26 12:28 J	-28026003.16	-28026002.98	-28026002.77	0.0131	0.0082
Uranus	-81444-12-30 10:47 J	-28025634.27	-28025634.05	-28025633.79	0.0131	0.0054
Uranus	-81442-01-03 18:42 J	-28025264.94	-28025264.72	-28025264.49	0.0131	0.0050
Uranus	-81441-01-07 16:32 J	-28024896.06	-28024895.81	-28024895.55	0.0132	0.0020

Uranus -81440-01-10 23:59 J -28024526.74 -28024526.50 -28024526.26 0.0132 0.0011
 Uranus -81439-01-14 21:35 J -28024157.86 -28024157.60 -28024157.35 0.0132 0.0011
 Saturn -81439-12-06 01:54 J -28023832.54 -28023832.42 -28023832.28 0.0293 0.0253
 Uranus -81438-01-19 04:18 J -28023788.55 -28023788.32 -28023788.07 0.0132 0.0030
 Saturn -81438-12-20 10:47 J -28023453.25 -28023453.05 -28023452.83 0.0292 0.0141
 Uranus -81437-01-23 02:08 J -28023419.66 -28023419.41 -28023419.17 0.0132 0.0040
 Saturn -81436-01-02 13:40 J -28023074.16 -28023073.93 -28023073.69 0.0290 0.0026
 Uranus -81436-01-26 09:20 J -28023050.31 -28023050.11 -28023049.89 0.0133 0.0067
 Saturn -81435-01-16 07:54 J -28022695.39 -28022695.17 -28022694.94 0.0287 0.0085
 Uranus -81435-01-30 06:42 J -28022681.43 -28022681.22 -28022680.99 0.0133 0.0071
 Saturn -81434-01-29 13:11 J -28022317.13 -28022316.95 -28022316.76 0.0284 0.0181
 Uranus -81434-02-03 14:08 J -28022312.05 -28022311.91 -28022311.74 0.0133 0.0102
 Jupiter -81434-09-22 11:30 J -28022081.25 -28022081.02 -28022080.79 0.0495 0.0147
 Uranus -81433-02-07 12:13 J -28021943.14 -28021942.99 -28021942.83 0.0134 0.0106
 Saturn -81433-02-11 03:49 J -28021939.43 -28021939.34 -28021939.23 0.0281 0.0256
 Uranus -81432-02-10 19:54 J -28021573.69 -28021573.67 -28021573.59 0.0134 0.0132
 Neptune -81430-10-02 14:08 J -28020610.03 -28020609.91 -28020609.74 0.0088 0.0075
 Neptune -81429-10-04 05:44 J -28020242.43 -28020242.26 -28020242.06 0.0088 0.0061
 Jupiter -81428-03-16 07:25 J -28020079.28 -28020079.19 -28020079.09 0.0534 0.0484
 Neptune -81428-10-06 17:16 J -28019875.03 -28019874.78 -28019874.52 0.0088 0.0032
 Neptune -81427-10-09 12:13 J -28019507.24 -28019506.99 -28019506.73 0.0088 0.0017
 Neptune -81426-10-11 19:40 J -28019139.93 -28019139.68 -28019139.40 0.0088 0.0012
 Neptune -81425-10-13 16:47 J -28018772.03 -28018771.80 -28018771.53 0.0088 0.0028
 Saturn -81424-05-24 01:25 J -28018549.48 -28018549.44 -28018549.39 0.0266 0.0261
 Neptune -81424-10-16 00:13 J -28018404.69 -28018404.49 -28018404.28 0.0088 0.0055
 Saturn -81423-06-04 22:18 J -28018172.70 -28018172.57 -28018172.41 0.0267 0.0207
 Neptune -81423-10-18 20:08 J -28018036.81 -28018036.66 -28018036.49 0.0088 0.0071
 Saturn -81422-06-17 02:37 J -28017795.59 -28017795.39 -28017795.17 0.0269 0.0134
 Jupiter -81422-09-26 18:42 J -28017693.96 -28017693.72 -28017693.48 0.0497 0.0044
 Saturn -81421-06-28 08:08 J -28017418.41 -28017418.16 -28017417.90 0.0271 0.0042

Saturn	-81420-07-10 18:42 J	-28017040.96	-28017040.72	-28017040.47	0.0273	0.0065
Saturn	-81419-07-23 19:11 J	-28016662.88	-28016662.70	-28016662.50	0.0276	0.0172
Saturn	-81418-08-06 08:37 J	-28016284.18	-28016284.14	-28016284.07	0.0279	0.0271
Jupiter	-81416-03-21 03:49 J	-28015691.53	-28015691.34	-28015691.15	0.0532	0.0258
Jupiter	-81410-10-01 19:25 J	-28013305.89	-28013305.69	-28013305.49	0.0498	0.0254
Saturn	-81409-12-13 17:16 J	-28012866.95	-28012866.78	-28012866.58	0.0292	0.0193
Saturn	-81408-12-27 20:08 J	-28012487.90	-28012487.66	-28012487.41	0.0290	0.0078
Saturn	-81406-01-10 10:47 J	-28012109.30	-28012109.05	-28012108.80	0.0288	0.0035
Saturn	-81405-01-23 18:28 J	-28011730.93	-28011730.73	-28011730.52	0.0285	0.0138
Uranus	-81405-06-08 05:16 J	-28011594.29	-28011594.28	-28011594.23	0.0147	0.0146
Saturn	-81404-02-04 20:23 J	-28011352.78	-28011352.65	-28011352.50	0.0282	0.0223
Jupiter	-81404-03-26 04:18 J	-28011303.55	-28011303.32	-28011303.09	0.0530	0.0015
Uranus	-81404-06-13 03:20 J	-28011224.52	-28011224.36	-28011224.18	0.0147	0.0110
Uranus	-81403-06-18 14:37 J	-28010854.06	-28010853.89	-28010853.70	0.0147	0.0102
Uranus	-81402-06-23 15:20 J	-28010484.07	-28010483.86	-28010483.61	0.0147	0.0070
Uranus	-81401-06-28 01:40 J	-28010113.66	-28010113.43	-28010113.18	0.0147	0.0043
Uranus	-81400-07-03 06:42 J	-28009743.48	-28009743.22	-28009742.95	0.0147	0.0028
Uranus	-81399-07-08 14:08 J	-28009373.15	-28009372.91	-28009372.66	0.0147	0.0011
Uranus	-81398-07-13 23:16 J	-28009002.79	-28009002.53	-28009002.26	0.0147	0.0023
Uranus	-81397-07-18 03:06 J	-28008632.59	-28008632.37	-28008632.12	0.0146	0.0053
Mars	-81396-06-13 02:08 J	-28008302.60	-28008302.41	-28008302.22	0.1579	0.0103
Uranus	-81396-07-23 15:35 J	-28008262.05	-28008261.85	-28008261.62	0.0146	0.0083
Uranus	-81395-07-28 16:47 J	-28007891.98	-28007891.80	-28007891.59	0.0146	0.0094
Saturn	-81394-05-31 03:06 J	-28007585.49	-28007585.37	-28007585.23	0.0267	0.0229
Uranus	-81394-08-03 06:28 J	-28007521.33	-28007521.23	-28007521.10	0.0145	0.0130
Saturn	-81393-06-10 19:54 J	-28007208.86	-28007208.67	-28007208.47	0.0268	0.0167
Uranus	-81393-08-07 05:30 J	-28007151.31	-28007151.27	-28007151.20	0.0145	0.0141
Jupiter	-81392-03-30 14:08 J	-28006916.09	-28006915.91	-28006915.73	0.0529	0.0313
Saturn	-81392-06-23 01:54 J	-28006831.64	-28006831.42	-28006831.19	0.0270	0.0083
Saturn	-81391-07-05 18:28 J	-28006453.97	-28006453.73	-28006453.48	0.0272	0.0018

Saturn	-81390-07-18 16:18 J	-28006076.05	-28006075.82	-28006075.59	0.0274	0.0124
Saturn	-81389-07-30 18:42 J	-28005697.85	-28005697.72	-28005697.56	0.0277	0.0227
Saturn	-81380-12-07 17:30 J	-28002280.91	-28002280.77	-28002280.62	0.0293	0.0233
Saturn	-81379-12-22 05:01 J	-28001901.50	-28001901.29	-28001901.07	0.0292	0.0121
Saturn	-81377-01-05 08:08 J	-28001522.40	-28001522.16	-28001521.92	0.0290	0.0005
Saturn	-81376-01-17 22:32 J	-28001143.79	-28001143.56	-28001143.33	0.0287	0.0104
Saturn	-81375-01-30 21:49 J	-28000765.76	-28000765.59	-28000765.40	0.0284	0.0194
Saturn	-81374-02-12 11:30 J	-28000388.08	-28000388.02	-28000387.94	0.0281	0.0267
Saturn	-81365-05-25 10:18 J	-27996998.14	-27996998.07	-27996997.99	0.0266	0.0252
Saturn	-81364-06-06 09:35 J	-27996621.26	-27996621.10	-27996620.93	0.0267	0.0194
Uranus	-81364-12-15 04:04 J	-27996429.40	-27996429.33	-27996429.21	0.0132	0.0122
Saturn	-81363-06-18 08:52 J	-27996244.35	-27996244.13	-27996243.89	0.0269	0.0118
Jupiter	-81363-09-16 20:23 J	-27996153.78	-27996153.65	-27996153.52	0.0494	0.0414
Uranus	-81363-12-19 14:08 J	-27996060.03	-27996059.91	-27996059.74	0.0131	0.0108
Saturn	-81362-06-30 12:28 J	-27995867.23	-27995866.98	-27995866.73	0.0271	0.0024
Uranus	-81362-12-23 12:42 J	-27995691.14	-27995690.97	-27995690.78	0.0131	0.0094
Saturn	-81361-07-12 04:32 J	-27995489.55	-27995489.31	-27995489.08	0.0273	0.0081
Uranus	-81361-12-26 21:49 J	-27995321.79	-27995321.59	-27995321.37	0.0131	0.0069
Saturn	-81360-07-25 10:18 J	-27995111.24	-27995111.07	-27995110.89	0.0276	0.0188
Uranus	-81360-12-30 19:40 J	-27994952.89	-27994952.68	-27994952.45	0.0131	0.0064
Uranus	-81358-01-04 04:32 J	-27994583.54	-27994583.31	-27994583.07	0.0132	0.0034
Uranus	-81357-01-08 01:54 J	-27994214.67	-27994214.42	-27994214.16	0.0132	0.0029
Uranus	-81356-01-11 10:18 J	-27993845.31	-27993845.07	-27993844.82	0.0132	0.0001
Uranus	-81355-01-15 06:42 J	-27993476.47	-27993476.22	-27993475.96	0.0132	0.0012
Pluto	-81355-07-25 06:28 J	-27993285.39	-27993285.23	-27993285.00	0.0066	0.0044
Uranus	-81354-01-19 14:37 J	-27993107.12	-27993106.89	-27993106.64	0.0132	0.0030
Pluto	-81354-07-26 15:06 J	-27992919.01	-27992918.87	-27992918.70	0.0066	0.0053
Uranus	-81353-01-23 11:16 J	-27992738.27	-27992738.03	-27992737.80	0.0132	0.0051
Uranus	-81352-01-26 19:11 J	-27992368.92	-27992368.70	-27992368.48	0.0133	0.0059
Uranus	-81351-01-30 15:20 J	-27992000.03	-27991999.86	-27991999.65	0.0133	0.0089

Jupiter -81351-09-21 04:32 J -27991766.53 -27991766.31 -27991766.08 0.0495 0.0177
 Saturn -81351-12-01 19:11 J -27991694.75 -27991694.70 -27991694.62 0.0293 0.0282
 Uranus -81350-02-03 23:44 J -27991630.66 -27991630.51 -27991630.32 0.0133 0.0094
 Saturn -81350-12-16 05:59 J -27991315.46 -27991315.25 -27991315.05 0.0292 0.0172
 Uranus -81349-02-07 21:20 J -27991261.70 -27991261.61 -27991261.50 0.0134 0.0122
 Mars -81349-06-07 17:01 J -27991140.95 -27991140.79 -27991140.63 0.1583 0.0904
 Saturn -81349-12-29 06:42 J -27990936.47 -27990936.22 -27990935.98 0.0290 0.0056
 Uranus -81348-02-11 06:13 J -27990892.28 -27990892.24 -27990892.15 0.0134 0.0130
 Saturn -81347-01-11 23:30 J -27990557.75 -27990557.52 -27990557.28 0.0288 0.0055
 Neptune -81347-03-31 19:11 J -27990478.82 -27990478.70 -27990478.54 0.0089 0.0073
 Saturn -81346-01-25 10:18 J -27990179.26 -27990179.07 -27990178.87 0.0285 0.0153
 Neptune -81346-04-02 22:04 J -27990111.76 -27990111.58 -27990111.38 0.0089 0.0058
 Saturn -81345-02-07 11:01 J -27989801.16 -27989801.04 -27989800.90 0.0282 0.0235
 Jupiter -81345-03-15 12:13 J -27989764.03 -27989763.99 -27989763.94 0.0534 0.0518
 Neptune -81345-04-04 14:08 J -27989744.14 -27989743.91 -27989743.66 0.0089 0.0031
 Neptune -81344-04-06 17:16 J -27989377.02 -27989376.78 -27989376.54 0.0089 0.0016
 Neptune -81343-04-09 07:40 J -27989009.44 -27989009.18 -27989008.93 0.0089 0.0011
 Neptune -81342-04-11 13:40 J -27988642.15 -27988641.93 -27988641.68 0.0089 0.0026
 Neptune -81341-04-12 22:47 J -27988274.74 -27988274.55 -27988274.32 0.0089 0.0053
 Neptune -81340-04-15 10:18 J -27987907.22 -27987907.07 -27987906.90 0.0089 0.0068
 Jupiter -81339-09-26 03:49 J -27987378.58 -27987378.34 -27987378.11 0.0497 0.0018
 Saturn -81335-06-01 04:32 J -27986034.45 -27986034.31 -27986034.17 0.0267 0.0220
 Saturn -81334-06-13 03:06 J -27985657.56 -27985657.37 -27985657.17 0.0268 0.0152
 Jupiter -81333-03-20 11:16 J -27985376.22 -27985376.03 -27985375.83 0.0532 0.0294
 Saturn -81333-06-24 12:28 J -27985280.21 -27985279.98 -27985279.74 0.0270 0.0065
 Saturn -81332-07-07 02:08 J -27984902.66 -27984902.41 -27984902.16 0.0272 0.0034
 Saturn -81331-07-19 19:40 J -27984524.89 -27984524.68 -27984524.45 0.0275 0.0142
 Saturn -81330-08-02 00:13 J -27984146.59 -27984146.49 -27984146.36 0.0278 0.0245
 Jupiter -81327-09-30 15:20 J -27982991.07 -27982990.86 -27982990.63 0.0498 0.0231
 Jupiter -81321-03-24 18:28 J -27980988.96 -27980988.73 -27980988.51 0.0531 0.0036

Uranus	-81321-06-08 16:32 J	-27980912.91	-27980912.81	-27980912.69	0.0147	0.0132
Saturn	-81321-12-09 10:32 J	-27980729.21	-27980729.06	-27980728.89	0.0293	0.0217
Uranus	-81320-06-13 14:08 J	-27980543.04	-27980542.91	-27980542.77	0.0147	0.0125
Saturn	-81320-12-23 22:18 J	-27980349.79	-27980349.57	-27980349.34	0.0292	0.0100
Uranus	-81319-06-19 01:54 J	-27980172.61	-27980172.42	-27980172.20	0.0147	0.0087
Saturn	-81318-01-06 21:49 J	-27979970.83	-27979970.59	-27979970.34	0.0289	0.0016
Uranus	-81318-06-24 02:37 J	-27979802.62	-27979802.39	-27979802.16	0.0147	0.0071
Saturn	-81317-01-20 06:42 J	-27979592.44	-27979592.22	-27979591.99	0.0287	0.0120
Mars	-81317-06-15 06:42 J	-27979445.38	-27979445.22	-27979445.06	0.1578	0.0964
Uranus	-81317-06-28 13:40 J	-27979432.16	-27979431.93	-27979431.69	0.0147	0.0046
Saturn	-81316-02-01 05:01 J	-27979214.45	-27979214.29	-27979214.12	0.0284	0.0207
Uranus	-81316-07-03 17:30 J	-27979062.03	-27979061.77	-27979061.50	0.0147	0.0012
Saturn	-81315-02-13 22:32 J	-27978836.58	-27978836.56	-27978836.54	0.0280	0.0279
Uranus	-81315-07-09 02:08 J	-27978691.66	-27978691.41	-27978691.16	0.0147	0.0001
Uranus	-81314-07-14 09:20 J	-27978321.36	-27978321.11	-27978320.84	0.0147	0.0037
Uranus	-81313-07-18 14:08 J	-27977951.13	-27977950.91	-27977950.66	0.0146	0.0058
Uranus	-81312-07-24 01:11 J	-27977580.67	-27977580.45	-27977580.21	0.0146	0.0077
Uranus	-81311-07-29 02:37 J	-27977210.54	-27977210.39	-27977210.22	0.0145	0.0114
Uranus	-81310-08-03 15:49 J	-27976839.98	-27976839.84	-27976839.70	0.0145	0.0121
Jupiter	-81309-03-29 19:54 J	-27976600.86	-27976600.67	-27976600.48	0.0530	0.0274
Saturn	-81306-05-27 19:25 J	-27975446.77	-27975446.69	-27975446.58	0.0266	0.0243
Saturn	-81305-06-07 14:23 J	-27975070.08	-27975069.90	-27975069.71	0.0267	0.0180
Saturn	-81304-06-19 09:49 J	-27974693.32	-27974693.09	-27974692.85	0.0269	0.0102
Saturn	-81303-07-01 17:59 J	-27974316.00	-27974315.75	-27974315.51	0.0271	0.0007
Saturn	-81302-07-14 14:52 J	-27973938.10	-27973937.88	-27973937.65	0.0273	0.0099
Saturn	-81301-07-26 20:23 J	-27973559.81	-27973559.65	-27973559.47	0.0276	0.0204
Mars	-81294-12-16 15:20 J	-27970861.01	-27970860.86	-27970860.71	0.1960	0.1265
Saturn	-81292-12-03 04:47 J	-27970143.39	-27970143.30	-27970143.18	0.0293	0.0264
Saturn	-81291-12-17 14:37 J	-27969764.09	-27969763.89	-27969763.67	0.0292	0.0151
Saturn	-81290-12-31 18:13 J	-27969384.97	-27969384.74	-27969384.50	0.0290	0.0037

Saturn	-81288-01-13 14:23 J	-27969006.13	-27969005.90	-27969005.67	0.0287	0.0073
Saturn	-81287-01-26 23:59 J	-27968627.69	-27968627.50	-27968627.30	0.0284	0.0168
Saturn	-81286-02-08 18:28 J	-27968249.83	-27968249.73	-27968249.59	0.0281	0.0246
Jupiter	-81280-09-15 15:49 J	-27965838.95	-27965838.84	-27965838.72	0.0494	0.0432
Uranus	-81280-12-15 11:59 J	-27965748.05	-27965748.00	-27965747.91	0.0131	0.0127
Uranus	-81279-12-19 23:16 J	-27965378.67	-27965378.53	-27965378.38	0.0131	0.0107
Uranus	-81278-12-23 21:20 J	-27965009.80	-27965009.61	-27965009.42	0.0131	0.0087
Uranus	-81277-12-27 07:11 J	-27964640.39	-27964640.20	-27964639.99	0.0131	0.0078
Saturn	-81276-06-02 07:40 J	-27964483.32	-27964483.18	-27964483.02	0.0267	0.0210
Uranus	-81276-12-31 04:04 J	-27964271.56	-27964271.33	-27964271.08	0.0131	0.0050
Saturn	-81275-06-14 10:32 J	-27964106.25	-27964106.06	-27964105.85	0.0268	0.0139
Uranus	-81274-01-04 13:25 J	-27963902.16	-27963901.94	-27963901.70	0.0132	0.0046
Saturn	-81274-06-26 16:32 J	-27963729.06	-27963728.81	-27963728.56	0.0270	0.0048
Uranus	-81273-01-08 10:04 J	-27963533.34	-27963533.08	-27963532.83	0.0132	0.0014
Saturn	-81273-07-08 01:54 J	-27963351.67	-27963351.42	-27963351.17	0.0272	0.0054
Uranus	-81272-01-11 18:42 J	-27963163.97	-27963163.72	-27963163.47	0.0132	0.0006
Saturn	-81272-07-20 21:49 J	-27962973.79	-27962973.59	-27962973.38	0.0275	0.0159
Uranus	-81271-01-15 14:37 J	-27962795.14	-27962794.89	-27962794.64	0.0132	0.0018
Saturn	-81271-08-03 08:37 J	-27962595.22	-27962595.14	-27962595.04	0.0278	0.0258
Uranus	-81270-01-19 23:16 J	-27962425.76	-27962425.53	-27962425.29	0.0132	0.0035
Mars	-81270-06-11 00:28 J	-27962283.66	-27962283.48	-27962283.30	0.1581	0.0640
Uranus	-81269-01-23 19:11 J	-27962056.93	-27962056.70	-27962056.46	0.0133	0.0048
Uranus	-81268-01-27 04:04 J	-27961687.52	-27961687.33	-27961687.12	0.0133	0.0074
Pluto	-81268-01-28 23:59 J	-27961685.61	-27961685.50	-27961685.37	0.0079	0.0068
Jupiter	-81268-09-20 16:32 J	-27961451.03	-27961450.81	-27961450.59	0.0495	0.0195
Uranus	-81267-01-31 00:13 J	-27961318.69	-27961318.49	-27961318.28	0.0133	0.0079
Uranus	-81266-02-04 09:06 J	-27960949.23	-27960949.12	-27960948.96	0.0133	0.0112
Uranus	-81265-02-08 05:44 J	-27960580.37	-27960580.26	-27960580.11	0.0134	0.0115
Neptune	-81265-10-03 10:32 J	-27960342.23	-27960342.06	-27960341.85	0.0088	0.0063
Neptune	-81264-10-06 06:56 J	-27959974.41	-27959974.21	-27959973.96	0.0088	0.0047

Neptune -81263-10-08 14:37 J -27959607.14 -27959606.89 -27959606.62 0.0088 0.0019
 Neptune -81262-10-11 12:28 J -27959239.25 -27959238.98 -27959238.71 0.0088 0.0003
 Saturn -81262-12-12 00:13 J -27959177.67 -27959177.49 -27959177.31 0.0293 0.0197
 Neptune -81261-10-12 19:54 J -27958871.91 -27958871.67 -27958871.41 0.0088 0.0025
 Saturn -81261-12-25 08:08 J -27958798.39 -27958798.16 -27958797.92 0.0292 0.0081
 Neptune -81260-10-15 15:49 J -27958504.08 -27958503.84 -27958503.59 0.0088 0.0039
 Saturn -81259-01-08 03:20 J -27958419.61 -27958419.36 -27958419.11 0.0289 0.0034
 Neptune -81259-10-18 01:54 J -27958136.58 -27958136.42 -27958136.25 0.0088 0.0068
 Saturn -81258-01-21 11:59 J -27958041.22 -27958041.00 -27958040.79 0.0287 0.0137
 Neptune -81258-10-20 17:30 J -27957768.87 -27957768.77 -27957768.67 0.0088 0.0082
 Saturn -81257-02-03 14:23 J -27957663.04 -27957662.90 -27957662.75 0.0283 0.0222
 Jupiter -81256-09-25 04:04 J -27957063.58 -27957063.33 -27957063.08 0.0496 0.0004
 Jupiter -81250-03-20 02:37 J -27955061.56 -27955061.39 -27955061.22 0.0533 0.0343
 Saturn -81247-05-28 22:18 J -27953895.67 -27953895.57 -27953895.43 0.0266 0.0235
 Saturn -81246-06-09 12:28 J -27953519.16 -27953518.98 -27953518.77 0.0267 0.0170
 Saturn -81245-06-20 12:28 J -27953142.21 -27953141.98 -27953141.75 0.0269 0.0087
 Saturn -81244-07-03 01:40 J -27952764.67 -27952764.43 -27952764.19 0.0271 0.0013
 Jupiter -81244-09-29 22:32 J -27952675.76 -27952675.56 -27952675.34 0.0497 0.0214
 Saturn -81243-07-15 22:04 J -27952386.81 -27952386.58 -27952386.36 0.0274 0.0116
 Saturn -81242-07-28 22:32 J -27952008.71 -27952008.56 -27952008.39 0.0276 0.0218
 Jupiter -81238-03-25 07:11 J -27950673.43 -27950673.20 -27950672.98 0.0532 0.0059
 Mars -81238-06-18 12:13 J -27950588.07 -27950587.99 -27950587.92 0.1577 0.1450
 Uranus -81237-06-09 02:08 J -27950231.44 -27950231.41 -27950231.35 0.0147 0.0144
 Uranus -81236-06-13 23:59 J -27949861.67 -27949861.50 -27949861.32 0.0147 0.0108
 Uranus -81235-06-19 11:59 J -27949491.17 -27949491.00 -27949490.80 0.0147 0.0098
 Uranus -81234-06-24 11:16 J -27949121.25 -27949121.03 -27949120.79 0.0147 0.0063
 Uranus -81233-06-28 23:16 J -27948750.77 -27948750.53 -27948750.29 0.0147 0.0038
 Saturn -81233-12-04 11:30 J -27948592.14 -27948592.02 -27948591.88 0.0294 0.0248
 Uranus -81232-07-04 01:40 J -27948380.69 -27948380.43 -27948380.16 0.0147 0.0021
 Jupiter -81232-10-04 17:01 J -27948287.83 -27948287.79 -27948287.72 0.0499 0.0485

Saturn	-81232-12-19 01:11 J	-27948212.66	-27948212.45	-27948212.24	0.0292	0.0135
Uranus	-81231-07-09 11:16 J	-27948010.27	-27948010.03	-27948009.78	0.0147	0.0018
Saturn	-81230-01-02 07:11 J	-27947833.43	-27947833.20	-27947832.96	0.0290	0.0020
Uranus	-81230-07-14 17:30 J	-27947640.02	-27947639.77	-27947639.50	0.0147	0.0031
Saturn	-81229-01-16 02:08 J	-27947454.63	-27947454.41	-27947454.18	0.0287	0.0092
Uranus	-81229-07-18 23:59 J	-27947269.72	-27947269.50	-27947269.27	0.0146	0.0062
Saturn	-81228-01-28 06:28 J	-27947076.41	-27947076.23	-27947076.03	0.0284	0.0184
Uranus	-81228-07-24 09:49 J	-27946899.29	-27946899.09	-27946898.88	0.0146	0.0091
Saturn	-81227-02-09 21:06 J	-27946698.72	-27946698.62	-27946698.51	0.0281	0.0254
Uranus	-81227-07-29 12:13 J	-27946529.14	-27946528.99	-27946528.79	0.0145	0.0105
Jupiter	-81226-03-29 21:20 J	-27946285.81	-27946285.61	-27946285.41	0.0530	0.0255
Uranus	-81226-08-04 00:42 J	-27946158.52	-27946158.47	-27946158.39	0.0145	0.0140
Saturn	-81218-05-23 17:01 J	-27943308.83	-27943308.79	-27943308.73	0.0266	0.0260
Saturn	-81217-06-03 13:25 J	-27942932.08	-27942931.94	-27942931.77	0.0267	0.0202
Saturn	-81216-06-15 13:11 J	-27942555.17	-27942554.95	-27942554.73	0.0268	0.0126
Saturn	-81215-06-27 13:11 J	-27942178.20	-27942177.95	-27942177.69	0.0270	0.0030
Mars	-81215-12-21 02:37 J	-27942001.60	-27942001.39	-27942001.18	0.1963	0.0803
Jupiter	-81214-04-03 20:08 J	-27941897.70	-27941897.66	-27941897.61	0.0528	0.0516
Saturn	-81214-07-10 00:13 J	-27941800.73	-27941800.49	-27941800.25	0.0272	0.0073
Saturn	-81213-07-22 01:40 J	-27941422.61	-27941422.43	-27941422.24	0.0275	0.0175
Saturn	-81212-08-04 14:37 J	-27941043.92	-27941043.89	-27941043.83	0.0278	0.0272
Saturn	-81204-11-28 13:25 J	-27938005.95	-27938005.94	-27938005.91	0.0295	0.0293
Saturn	-81203-12-13 05:30 J	-27937626.47	-27937626.27	-27937626.07	0.0294	0.0183
Saturn	-81202-12-27 10:04 J	-27937247.32	-27937247.08	-27937246.83	0.0292	0.0065
Saturn	-81200-01-09 05:44 J	-27936868.49	-27936868.26	-27936868.01	0.0289	0.0051
Saturn	-81199-01-22 18:42 J	-27936489.92	-27936489.72	-27936489.52	0.0286	0.0152
Saturn	-81198-02-04 23:44 J	-27936111.64	-27936111.51	-27936111.38	0.0283	0.0233
Jupiter	-81197-09-15 08:37 J	-27935523.25	-27935523.14	-27935523.03	0.0493	0.0434
Uranus	-81196-12-15 20:08 J	-27935066.74	-27935066.66	-27935066.53	0.0131	0.0120
Uranus	-81195-12-20 07:40 J	-27934697.31	-27934697.18	-27934697.02	0.0131	0.0106

Uranus	-81194-12-24 05:01 J	-27934328.46	-27934328.29	-27934328.10	0.0131	0.0091
Uranus	-81193-12-27 15:49 J	-27933959.06	-27933958.84	-27933958.63	0.0131	0.0067
Uranus	-81192-12-31 12:13 J	-27933590.21	-27933589.99	-27933589.76	0.0131	0.0061
Mars	-81191-06-13 00:56 J	-27933426.64	-27933426.46	-27933426.28	0.1580	0.0337
Uranus	-81190-01-04 22:04 J	-27933220.82	-27933220.58	-27933220.33	0.0131	0.0029
Uranus	-81189-01-08 18:13 J	-27932851.99	-27932851.74	-27932851.49	0.0132	0.0024
Uranus	-81188-01-12 03:35 J	-27932482.60	-27932482.35	-27932482.10	0.0132	0.0006
Saturn	-81188-05-29 18:42 J	-27932344.85	-27932344.72	-27932344.59	0.0266	0.0227
Uranus	-81187-01-15 22:47 J	-27932113.80	-27932113.55	-27932113.30	0.0132	0.0016
Saturn	-81187-06-10 11:16 J	-27931968.21	-27931968.03	-27931967.83	0.0267	0.0160
Uranus	-81186-01-20 07:54 J	-27931744.40	-27931744.17	-27931743.93	0.0132	0.0036
Saturn	-81186-06-22 16:47 J	-27931591.02	-27931590.80	-27931590.57	0.0269	0.0072
Uranus	-81185-01-24 03:20 J	-27931375.59	-27931375.36	-27931375.13	0.0132	0.0057
Saturn	-81185-07-04 05:01 J	-27931213.54	-27931213.29	-27931213.04	0.0271	0.0030
Jupiter	-81185-09-19 17:01 J	-27931136.02	-27931135.79	-27931135.57	0.0494	0.0213
Uranus	-81184-01-27 12:13 J	-27931006.20	-27931005.99	-27931005.77	0.0133	0.0067
Saturn	-81184-07-16 20:23 J	-27930835.87	-27930835.65	-27930835.42	0.0274	0.0133
Uranus	-81183-01-31 07:25 J	-27930637.34	-27930637.19	-27930637.00	0.0133	0.0097
Neptune	-81183-03-31 03:06 J	-27930578.47	-27930578.37	-27930578.25	0.0089	0.0079
Saturn	-81183-07-29 19:54 J	-27930457.80	-27930457.67	-27930457.53	0.0277	0.0233
Uranus	-81182-02-04 17:01 J	-27930267.92	-27930267.79	-27930267.61	0.0133	0.0102
Neptune	-81182-04-02 18:28 J	-27930210.87	-27930210.73	-27930210.54	0.0089	0.0066
Uranus	-81181-02-08 13:54 J	-27929898.97	-27929898.92	-27929898.88	0.0134	0.0131
Neptune	-81181-04-03 21:20 J	-27929843.81	-27929843.61	-27929843.37	0.0089	0.0039
Neptune	-81180-04-06 11:01 J	-27929476.28	-27929476.04	-27929475.79	0.0089	0.0025
Neptune	-81179-04-08 18:13 J	-27929108.98	-27929108.74	-27929108.50	0.0089	0.0002
Neptune	-81178-04-11 03:20 J	-27928741.61	-27928741.36	-27928741.10	0.0089	0.0016
Neptune	-81177-04-12 15:35 J	-27928374.06	-27928373.85	-27928373.64	0.0089	0.0045
Neptune	-81176-04-14 19:40 J	-27928006.86	-27928006.68	-27928006.47	0.0089	0.0058
Neptune	-81175-04-17 10:47 J	-27927639.08	-27927639.05	-27927638.95	0.0089	0.0086

Saturn	-81174-12-06 19:25 J	-27927040.82	-27927040.69	-27927040.54	0.0294	0.0234
Jupiter	-81173-09-24 13:11 J	-27926748.19	-27926747.95	-27926747.72	0.0495	0.0027
Saturn	-81173-12-20 11:16 J	-27926661.24	-27926661.03	-27926660.81	0.0292	0.0119
Saturn	-81171-01-03 15:49 J	-27926282.08	-27926281.84	-27926281.60	0.0290	0.0002
Saturn	-81170-01-17 05:59 J	-27925903.47	-27925903.25	-27925903.01	0.0287	0.0106
Saturn	-81169-01-30 07:11 J	-27925525.37	-27925525.20	-27925525.01	0.0284	0.0195
Saturn	-81168-02-11 00:56 J	-27925147.52	-27925147.46	-27925147.38	0.0281	0.0267
Jupiter	-81167-03-19 19:40 J	-27924745.85	-27924745.68	-27924745.52	0.0534	0.0361
Jupiter	-81161-09-29 05:44 J	-27922360.49	-27922360.26	-27922360.03	0.0497	0.0201
Saturn	-81159-05-24 21:06 J	-27921757.68	-27921757.62	-27921757.55	0.0266	0.0253
Saturn	-81158-06-05 14:52 J	-27921381.03	-27921380.88	-27921380.69	0.0267	0.0193
Saturn	-81157-06-16 08:37 J	-27921004.37	-27921004.14	-27921003.91	0.0268	0.0112
Saturn	-81156-06-28 10:32 J	-27920627.31	-27920627.06	-27920626.81	0.0270	0.0014
Jupiter	-81155-03-24 09:06 J	-27920358.35	-27920358.12	-27920357.89	0.0532	0.0075
Saturn	-81155-07-11 03:06 J	-27920249.59	-27920249.37	-27920249.14	0.0272	0.0090
Saturn	-81154-07-24 05:30 J	-27919871.44	-27919871.27	-27919871.09	0.0275	0.0191
Uranus	-81153-06-09 09:06 J	-27919550.21	-27919550.12	-27919550.00	0.0147	0.0132
Uranus	-81152-06-14 07:11 J	-27919180.34	-27919180.20	-27919180.06	0.0147	0.0123
Uranus	-81151-06-19 19:11 J	-27918809.89	-27918809.70	-27918809.47	0.0147	0.0084
Uranus	-81150-06-24 18:42 J	-27918439.95	-27918439.72	-27918439.49	0.0147	0.0068
Uranus	-81149-06-29 07:25 J	-27918069.42	-27918069.19	-27918068.94	0.0147	0.0040
Jupiter	-81149-10-03 20:37 J	-27917972.70	-27917972.64	-27917972.57	0.0499	0.0480
Uranus	-81148-07-04 08:52 J	-27917699.39	-27917699.13	-27917698.86	0.0147	0.0007
Uranus	-81147-07-09 19:54 J	-27917328.92	-27917328.67	-27917328.42	0.0147	0.0006
Uranus	-81146-07-15 00:13 J	-27916958.73	-27916958.49	-27916958.22	0.0147	0.0046
Uranus	-81145-07-19 08:08 J	-27916588.38	-27916588.16	-27916587.93	0.0146	0.0065
Saturn	-81145-11-29 13:11 J	-27916455.03	-27916454.95	-27916454.86	0.0295	0.0278
Mars	-81144-06-07 09:06 J	-27916265.20	-27916265.12	-27916265.03	0.1585	0.1389
Uranus	-81144-07-24 16:18 J	-27916218.03	-27916217.82	-27916217.60	0.0146	0.0087
Saturn	-81144-12-14 03:20 J	-27916075.56	-27916075.36	-27916075.15	0.0294	0.0167

Jupiter -81143-03-29 03:49 J -27915970.53 -27915970.34 -27915970.14 0.0530 0.0225
 Uranus -81143-07-29 19:54 J -27915847.79 -27915847.67 -27915847.52 0.0145 0.0123
 Saturn -81143-12-28 10:32 J -27915696.30 -27915696.06 -27915695.82 0.0292 0.0050
 Uranus -81142-08-04 06:56 J -27915477.30 -27915477.21 -27915477.07 0.0145 0.0131
 Saturn -81141-01-11 10:47 J -27915317.28 -27915317.05 -27915316.82 0.0289 0.0063
 Saturn -81140-01-24 01:40 J -27914938.63 -27914938.43 -27914938.24 0.0286 0.0164
 Saturn -81139-02-06 02:52 J -27914560.49 -27914560.38 -27914560.25 0.0283 0.0245
 Jupiter -81131-04-02 20:37 J -27911582.74 -27911582.64 -27911582.53 0.0529 0.0470
 Saturn -81129-05-30 16:18 J -27910793.95 -27910793.82 -27910793.68 0.0266 0.0221
 Saturn -81128-06-11 14:37 J -27910417.08 -27910416.89 -27910416.69 0.0267 0.0149
 Saturn -81127-06-23 18:56 J -27910039.95 -27910039.71 -27910039.47 0.0269 0.0060
 Saturn -81126-07-06 00:42 J -27909662.72 -27909662.47 -27909662.21 0.0271 0.0046
 Saturn -81125-07-17 14:37 J -27909285.09 -27909284.89 -27909284.67 0.0274 0.0151
 Saturn -81124-07-30 19:25 J -27908906.80 -27908906.69 -27908906.58 0.0277 0.0247
 Saturn -81115-12-08 02:08 J -27905489.57 -27905489.41 -27905489.24 0.0294 0.0217
 Jupiter -81114-09-15 09:20 J -27905208.20 -27905208.11 -27905208.00 0.0493 0.0445
 Saturn -81114-12-22 15:20 J -27905110.08 -27905109.86 -27905109.62 0.0292 0.0103
 Saturn -81112-01-04 15:20 J -27904731.11 -27904730.86 -27904730.61 0.0290 0.0011
 Mars -81112-06-14 19:40 J -27904569.85 -27904569.68 -27904569.52 0.1579 0.0596
 Uranus -81112-12-16 03:35 J -27904385.40 -27904385.35 -27904385.27 0.0131 0.0127
 Saturn -81111-01-18 03:35 J -27904352.57 -27904352.35 -27904352.12 0.0287 0.0116
 Uranus -81111-12-20 15:20 J -27904015.99 -27904015.86 -27904015.68 0.0131 0.0105
 Saturn -81110-01-31 08:08 J -27903974.31 -27903974.16 -27903973.99 0.0284 0.0208
 Uranus -81110-12-24 12:28 J -27903647.15 -27903646.98 -27903646.76 0.0131 0.0087
 Saturn -81109-02-13 06:56 J -27903596.24 -27903596.21 -27903596.17 0.0281 0.0277
 Pluto -81109-07-25 19:25 J -27903432.77 -27903432.69 -27903432.54 0.0066 0.0060
 Uranus -81109-12-27 23:30 J -27903277.71 -27903277.52 -27903277.30 0.0131 0.0075
 Pluto -81108-07-27 12:42 J -27903066.17 -27903065.97 -27903065.73 0.0066 0.0034
 Uranus -81108-12-31 19:40 J -27902908.91 -27902908.68 -27902908.43 0.0131 0.0047
 Uranus -81106-01-05 05:30 J -27902539.49 -27902539.27 -27902539.02 0.0131 0.0042

Uranus	-81105-01-09 01:25 J	-27902170.69	-27902170.44	-27902170.19	0.0132	0.0009
Uranus	-81104-01-12 10:32 J	-27901801.31	-27901801.06	-27901800.81	0.0132	0.0002
Uranus	-81103-01-16 05:30 J	-27901432.51	-27901432.27	-27901432.01	0.0132	0.0025
Uranus	-81102-01-20 15:06 J	-27901063.11	-27901062.87	-27901062.63	0.0132	0.0039
Jupiter	-81102-09-20 04:32 J	-27900820.51	-27900820.31	-27900820.10	0.0494	0.0233
Uranus	-81101-01-24 10:18 J	-27900694.29	-27900694.07	-27900693.84	0.0132	0.0055
Neptune	-81101-10-03 02:23 J	-27900441.56	-27900441.40	-27900441.23	0.0088	0.0069
Uranus	-81100-01-27 19:40 J	-27900324.86	-27900324.68	-27900324.47	0.0133	0.0081
Saturn	-81100-05-25 22:04 J	-27900206.66	-27900206.58	-27900206.48	0.0266	0.0245
Neptune	-81100-10-05 09:35 J	-27900074.30	-27900074.10	-27900073.89	0.0088	0.0056
Uranus	-81099-01-31 15:35 J	-27899956.04	-27899955.85	-27899955.66	0.0133	0.0087
Saturn	-81099-06-06 09:35 J	-27899830.28	-27899830.10	-27899829.92	0.0267	0.0182
Neptune	-81099-10-08 06:56 J	-27899706.45	-27899706.21	-27899705.94	0.0088	0.0027
Uranus	-81098-02-05 00:56 J	-27899586.54	-27899586.46	-27899586.33	0.0133	0.0120
Saturn	-81098-06-18 03:35 J	-27899453.57	-27899453.35	-27899453.12	0.0268	0.0100
Neptune	-81098-10-10 15:06 J	-27899339.12	-27899338.87	-27899338.60	0.0088	0.0013
Uranus	-81097-02-08 21:06 J	-27899217.69	-27899217.62	-27899217.50	0.0134	0.0123
Saturn	-81097-06-29 11:44 J	-27899076.25	-27899076.01	-27899075.77	0.0270	0.0003
Neptune	-81097-10-12 09:49 J	-27898971.35	-27898971.09	-27898970.81	0.0088	0.0016
Saturn	-81096-07-12 05:01 J	-27898698.51	-27898698.29	-27898698.06	0.0272	0.0107
Neptune	-81096-10-14 21:20 J	-27898603.84	-27898603.61	-27898603.36	0.0088	0.0032
Saturn	-81095-07-25 02:37 J	-27898320.54	-27898320.39	-27898320.20	0.0275	0.0205
Neptune	-81095-10-17 11:44 J	-27898236.20	-27898236.01	-27898235.79	0.0088	0.0058
Neptune	-81094-10-20 04:04 J	-27897868.45	-27897868.33	-27897868.17	0.0088	0.0074
Jupiter	-81090-09-24 23:01 J	-27896432.79	-27896432.54	-27896432.29	0.0495	0.0041
Saturn	-81086-12-01 08:37 J	-27894904.23	-27894904.14	-27894904.01	0.0295	0.0264
Saturn	-81085-12-15 02:23 J	-27894524.60	-27894524.40	-27894524.19	0.0294	0.0154
Jupiter	-81084-03-18 15:20 J	-27894431.01	-27894430.86	-27894430.70	0.0533	0.0393
Saturn	-81084-12-29 13:54 J	-27894145.15	-27894144.92	-27894144.69	0.0292	0.0038
Saturn	-81082-01-12 15:35 J	-27893766.08	-27893765.85	-27893765.62	0.0289	0.0074

Saturn -81081-01-26 02:52 J -27893387.56 -27893387.38 -27893387.18 0.0287 0.0174
 Saturn -81080-02-06 23:16 J -27893009.63 -27893009.53 -27893009.41 0.0283 0.0252
 Jupiter -81078-09-29 13:25 J -27892045.15 -27892044.94 -27892044.72 0.0497 0.0201
 Jupiter -81072-03-23 16:04 J -27890043.05 -27890042.83 -27890042.62 0.0532 0.0103
 Saturn -81070-06-01 17:59 J -27889242.87 -27889242.75 -27889242.59 0.0266 0.0213
 Uranus -81069-06-09 14:23 J -27888868.94 -27888868.90 -27888868.82 0.0147 0.0143
 Saturn -81069-06-12 16:04 J -27888866.02 -27888865.83 -27888865.61 0.0267 0.0139
 Uranus -81068-06-14 12:28 J -27888499.13 -27888498.98 -27888498.79 0.0147 0.0108
 Saturn -81068-06-24 14:37 J -27888489.14 -27888488.89 -27888488.63 0.0268 0.0044
 Uranus -81067-06-20 00:42 J -27888128.65 -27888128.47 -27888128.26 0.0147 0.0097
 Saturn -81067-07-06 19:11 J -27888111.94 -27888111.70 -27888111.45 0.0271 0.0062
 Uranus -81066-06-24 23:16 J -27887758.76 -27887758.53 -27887758.29 0.0147 0.0059
 Saturn -81066-07-19 14:23 J -27887734.08 -27887733.90 -27887733.70 0.0273 0.0165
 Jupiter -81066-10-04 12:42 J -27887657.04 -27887656.97 -27887656.89 0.0498 0.0473
 Mars -81065-06-09 02:08 J -27887408.58 -27887408.41 -27887408.24 0.1584 0.0472
 Uranus -81065-06-29 12:28 J -27887388.22 -27887387.98 -27887387.73 0.0147 0.0035
 Saturn -81065-07-31 22:32 J -27887355.64 -27887355.56 -27887355.48 0.0276 0.0259
 Uranus -81064-07-04 12:42 J -27887018.23 -27887017.97 -27887017.71 0.0147 0.0016
 Uranus -81063-07-10 00:42 J -27886647.71 -27886647.47 -27886647.21 0.0147 0.0024
 Uranus -81062-07-15 04:04 J -27886277.58 -27886277.33 -27886277.07 0.0147 0.0036
 Uranus -81061-07-19 13:40 J -27885907.14 -27885906.93 -27885906.70 0.0146 0.0072
 Jupiter -81060-03-28 10:32 J -27885655.27 -27885655.06 -27885654.84 0.0531 0.0207
 Uranus -81060-07-24 20:08 J -27885536.84 -27885536.66 -27885536.44 0.0146 0.0098
 Uranus -81059-07-30 02:08 J -27885166.55 -27885166.41 -27885166.24 0.0146 0.0114
 Saturn -81056-12-09 02:52 J -27883938.56 -27883938.38 -27883938.20 0.0294 0.0203
 Saturn -81055-12-23 11:59 J -27883559.23 -27883559.00 -27883558.75 0.0293 0.0090
 Saturn -81053-01-06 11:30 J -27883180.27 -27883180.02 -27883179.78 0.0290 0.0024
 Saturn -81052-01-19 03:35 J -27882801.56 -27882801.35 -27882801.13 0.0287 0.0127
 Saturn -81051-02-01 11:59 J -27882423.14 -27882423.00 -27882422.84 0.0284 0.0216
 Jupiter -81048-04-02 05:30 J -27881267.37 -27881267.27 -27881267.15 0.0529 0.0454

Saturn -81041-05-26 17:44 J -27878655.86 -27878655.76 -27878655.64 0.0265 0.0237
 Saturn -81040-06-07 04:47 J -27878279.48 -27878279.30 -27878279.11 0.0266 0.0173
 Saturn -81039-06-19 04:47 J -27877902.52 -27877902.30 -27877902.07 0.0268 0.0085
 Saturn -81038-07-01 13:25 J -27877525.18 -27877524.94 -27877524.69 0.0270 0.0016
 Saturn -81037-07-13 01:11 J -27877147.68 -27877147.45 -27877147.22 0.0272 0.0120
 Saturn -81036-07-25 19:11 J -27876769.84 -27876769.70 -27876769.53 0.0275 0.0217
 Mars -81033-06-16 12:56 J -27875713.05 -27875712.96 -27875712.87 0.1578 0.1364
 Jupiter -81031-09-15 00:13 J -27874892.57 -27874892.49 -27874892.39 0.0493 0.0453
 Uranus -81028-12-16 12:28 J -27873704.08 -27873703.98 -27873703.86 0.0131 0.0118
 Saturn -81027-12-02 07:54 J -27873353.28 -27873353.17 -27873353.04 0.0295 0.0254
 Uranus -81027-12-20 23:59 J -27873334.64 -27873334.50 -27873334.33 0.0131 0.0105
 Saturn -81026-12-17 04:18 J -27872973.52 -27872973.32 -27872973.10 0.0294 0.0142
 Uranus -81026-12-24 20:52 J -27872965.80 -27872965.63 -27872965.43 0.0131 0.0088
 Uranus -81025-12-28 07:40 J -27872596.40 -27872596.18 -27872595.95 0.0131 0.0065
 Saturn -81025-12-30 15:35 J -27872594.09 -27872593.85 -27872593.61 0.0292 0.0025
 Uranus -81023-01-01 03:49 J -27872227.56 -27872227.34 -27872227.11 0.0131 0.0057
 Saturn -81023-01-13 13:11 J -27872215.18 -27872214.95 -27872214.71 0.0290 0.0084
 Uranus -81022-01-05 13:40 J -27871858.17 -27871857.93 -27871857.67 0.0131 0.0026
 Saturn -81022-01-26 20:37 J -27871836.83 -27871836.64 -27871836.44 0.0287 0.0179
 Uranus -81021-01-09 09:35 J -27871489.35 -27871489.10 -27871488.85 0.0132 0.0020
 Pluto -81021-02-01 11:01 J -27871466.23 -27871466.04 -27871465.83 0.0078 0.0044
 Saturn -81021-02-08 18:42 J -27871458.81 -27871458.72 -27871458.62 0.0283 0.0259
 Uranus -81020-01-12 19:11 J -27871119.95 -27871119.70 -27871119.45 0.0132 0.0012
 Uranus -81019-01-16 14:23 J -27870751.14 -27870750.90 -27870750.65 0.0132 0.0021
 Jupiter -81019-09-19 17:16 J -27870504.99 -27870504.78 -27870504.56 0.0494 0.0245
 Uranus -81018-01-20 23:44 J -27870381.74 -27870381.51 -27870381.26 0.0132 0.0043
 Neptune -81018-04-02 02:52 J -27870310.51 -27870310.38 -27870310.20 0.0089 0.0068
 Uranus -81017-01-24 19:11 J -27870012.91 -27870012.70 -27870012.48 0.0132 0.0063
 Neptune -81017-04-03 16:18 J -27869943.02 -27869942.82 -27869942.60 0.0089 0.0053
 Uranus -81016-01-28 04:04 J -27869643.52 -27869643.33 -27869643.11 0.0133 0.0075

Neptune -81016-04-05 23:30 J -27869575.74 -27869575.52 -27869575.28 0.0089 0.0027
 Uranus -81015-01-31 23:30 J -27869274.64 -27869274.52 -27869274.34 0.0133 0.0105
 Neptune -81015-04-08 07:25 J -27869208.44 -27869208.19 -27869207.93 0.0089 0.0011
 Uranus -81014-02-05 09:35 J -27868905.23 -27868905.10 -27868904.94 0.0133 0.0109
 Neptune -81014-04-10 19:40 J -27868840.91 -27868840.68 -27868840.43 0.0089 0.0015
 Neptune -81013-04-11 23:30 J -27868473.75 -27868473.52 -27868473.27 0.0089 0.0030
 Neptune -81012-04-14 15:49 J -27868106.03 -27868105.84 -27868105.65 0.0089 0.0056
 Saturn -81012-05-22 02:08 J -27868068.44 -27868068.41 -27868068.38 0.0265 0.0262
 Neptune -81011-04-16 17:59 J -27867738.88 -27867738.75 -27867738.57 0.0089 0.0070
 Saturn -81011-06-02 19:40 J -27867691.82 -27867691.68 -27867691.52 0.0265 0.0205
 Saturn -81010-06-14 11:16 J -27867315.24 -27867315.03 -27867314.79 0.0267 0.0125
 Mars -81010-12-15 23:44 J -27867130.60 -27867130.51 -27867130.43 0.1958 0.1755
 Saturn -81009-06-25 08:08 J -27866938.40 -27866938.16 -27866937.90 0.0268 0.0029
 Saturn -81008-07-07 18:28 J -27866560.96 -27866560.73 -27866560.50 0.0271 0.0074
 Saturn -81007-07-20 17:01 J -27866182.97 -27866182.79 -27866182.60 0.0273 0.0176
 Jupiter -81007-09-24 04:47 J -27866117.53 -27866117.30 -27866117.06 0.0495 0.0056
 Saturn -81006-08-02 22:04 J -27865804.62 -27865804.58 -27865804.51 0.0276 0.0269
 Jupiter -81001-03-18 04:32 J -27864115.44 -27864115.31 -27864115.17 0.0534 0.0413

81ST MILLENNIUM BCE

This is a list of transits of Moon in the 81st millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-80997-12-09	21:20	J	-27862387.79	-27862387.61	-27862387.40	0.0294	0.0191

Saturn	-80996-12-24 07:54 J	-27862008.40	-27862008.17	-27862007.92	0.0293	0.0076
Jupiter	-80995-09-29 04:32 J	-27861729.54	-27861729.31	-27861729.09	0.0496	0.0193
Saturn	-80994-01-07 11:44 J	-27861629.24	-27861629.01	-27861628.77	0.0290	0.0037
Saturn	-80993-01-21 07:40 J	-27861250.38	-27861250.18	-27861249.97	0.0288	0.0136
Saturn	-80992-02-02 14:37 J	-27860872.02	-27860871.89	-27860871.73	0.0284	0.0224
Jupiter	-80989-03-23 01:11 J	-27859727.68	-27859727.45	-27859727.22	0.0533	0.0102
Mars	-80986-06-12 00:13 J	-27858551.68	-27858551.49	-27858551.30	0.1582	0.0264
Uranus	-80985-06-09 19:25 J	-27858187.77	-27858187.69	-27858187.56	0.0147	0.0134
Uranus	-80984-06-14 18:28 J	-27857817.85	-27857817.73	-27857817.58	0.0147	0.0122
Uranus	-80983-06-20 06:13 J	-27857447.45	-27857447.24	-27857447.02	0.0147	0.0081
Jupiter	-80983-10-03 13:11 J	-27857342.04	-27857341.95	-27857341.86	0.0498	0.0458
Saturn	-80982-05-28 12:28 J	-27857105.08	-27857104.98	-27857104.85	0.0265	0.0233
Uranus	-80982-06-25 04:47 J	-27857077.51	-27857077.30	-27857077.06	0.0147	0.0066
Saturn	-80981-06-08 06:13 J	-27856728.42	-27856728.24	-27856728.05	0.0266	0.0162
Uranus	-80981-06-29 18:28 J	-27856706.97	-27856706.73	-27856706.48	0.0147	0.0035
Saturn	-80980-06-20 07:40 J	-27856351.41	-27856351.18	-27856350.94	0.0268	0.0071
Uranus	-80980-07-04 17:59 J	-27856337.01	-27856336.75	-27856336.49	0.0147	0.0004
Saturn	-80979-07-02 11:01 J	-27855974.29	-27855974.04	-27855973.78	0.0270	0.0030
Uranus	-80979-07-10 07:11 J	-27855966.45	-27855966.20	-27855965.95	0.0147	0.0011
Saturn	-80978-07-14 18:56 J	-27855596.93	-27855596.71	-27855596.48	0.0272	0.0134
Uranus	-80978-07-15 08:23 J	-27855596.38	-27855596.15	-27855595.89	0.0147	0.0053
Jupiter	-80977-03-27 20:23 J	-27855339.85	-27855339.65	-27855339.45	0.0531	0.0198
Uranus	-80977-07-19 19:11 J	-27855225.90	-27855225.70	-27855225.46	0.0146	0.0071
Saturn	-80977-07-26 17:16 J	-27855218.91	-27855218.78	-27855218.64	0.0275	0.0228
Uranus	-80976-07-24 23:59 J	-27854855.68	-27854855.50	-27854855.28	0.0146	0.0097
Uranus	-80975-07-30 07:40 J	-27854485.28	-27854485.18	-27854485.06	0.0145	0.0130
Uranus	-80974-08-04 16:04 J	-27854114.89	-27854114.83	-27854114.74	0.0145	0.0139
Saturn	-80968-12-03 10:32 J	-27851802.18	-27851802.06	-27851801.92	0.0295	0.0244
Saturn	-80967-12-18 05:16 J	-27851422.49	-27851422.28	-27851422.05	0.0294	0.0130
Saturn	-80965-01-01 12:28 J	-27851043.23	-27851042.98	-27851042.73	0.0292	0.0015

Jupiter -80965-04-01 16:18 J -27850951.96 -27850951.82 -27850951.68 0.0529 0.0419
 Saturn -80964-01-14 06:28 J -27850664.47 -27850664.23 -27850663.99 0.0290 0.0091
 Saturn -80963-01-27 15:49 J -27850286.01 -27850285.84 -27850285.65 0.0287 0.0186
 Saturn -80962-02-09 18:56 J -27849907.77 -27849907.71 -27849907.62 0.0283 0.0268
 Saturn -80953-05-23 05:01 J -27846517.33 -27846517.29 -27846517.23 0.0265 0.0258
 Saturn -80952-06-03 17:01 J -27846140.95 -27846140.79 -27846140.61 0.0265 0.0195
 Saturn -80951-06-15 06:13 J -27845764.46 -27845764.24 -27845764.01 0.0267 0.0111
 Saturn -80950-06-27 08:23 J -27845387.39 -27845387.15 -27845386.91 0.0268 0.0014
 Saturn -80949-07-08 22:04 J -27845009.81 -27845009.58 -27845009.36 0.0271 0.0089
 Saturn -80948-07-21 16:32 J -27844631.98 -27844631.81 -27844631.61 0.0273 0.0187
 Jupiter -80948-09-14 09:20 J -27844577.19 -27844577.11 -27844577.01 0.0493 0.0457
 Saturn -80947-08-03 17:01 J -27844253.81 -27844253.79 -27844253.75 0.0276 0.0274
 Uranus -80944-12-16 19:40 J -27843022.73 -27843022.68 -27843022.59 0.0131 0.0127
 Uranus -80943-12-21 07:40 J -27842653.34 -27842653.18 -27842653.02 0.0131 0.0102
 Uranus -80942-12-25 04:47 J -27842284.47 -27842284.30 -27842284.09 0.0131 0.0085
 Uranus -80941-12-28 15:20 J -27841915.06 -27841914.86 -27841914.63 0.0131 0.0072
 Uranus -80939-01-01 12:13 J -27841546.22 -27841545.99 -27841545.75 0.0131 0.0044
 Mars -80939-06-06 16:32 J -27841389.92 -27841389.81 -27841389.69 0.1588 0.1289
 Saturn -80939-11-26 22:32 J -27841216.60 -27841216.56 -27841216.49 0.0295 0.0288
 Uranus -80938-01-05 21:49 J -27841176.83 -27841176.59 -27841176.34 0.0132 0.0037
 Saturn -80938-12-11 18:28 J -27840836.91 -27840836.73 -27840836.53 0.0295 0.0180
 Uranus -80937-01-09 17:44 J -27840808.00 -27840807.76 -27840807.51 0.0132 0.0004
 Neptune -80937-10-02 03:35 J -27840541.40 -27840541.35 -27840541.23 0.0088 0.0084
 Saturn -80937-12-25 08:52 J -27840457.36 -27840457.13 -27840456.90 0.0293 0.0065
 Uranus -80936-01-13 02:52 J -27840438.63 -27840438.38 -27840438.12 0.0132 0.0003
 Jupiter -80936-09-18 21:49 J -27840189.78 -27840189.59 -27840189.39 0.0494 0.0267
 Neptune -80936-10-05 01:11 J -27840173.63 -27840173.45 -27840173.22 0.0088 0.0058
 Saturn -80935-01-08 14:52 J -27840078.11 -27840077.88 -27840077.64 0.0291 0.0046
 Uranus -80935-01-16 22:32 J -27840069.79 -27840069.56 -27840069.31 0.0132 0.0031
 Neptune -80935-10-07 11:01 J -27839806.26 -27839806.04 -27839805.80 0.0088 0.0041

Uranus -80934-01-21 07:54 J -27839700.41 -27839700.17 -27839699.93 0.0132 0.0045
 Saturn -80934-01-22 08:37 J -27839699.35 -27839699.14 -27839698.93 0.0288 0.0145
 Neptune -80934-10-10 05:16 J -27839438.54 -27839438.28 -27839438.00 0.0088 0.0014
 Uranus -80933-01-25 03:35 J -27839331.56 -27839331.35 -27839331.13 0.0132 0.0063
 Saturn -80933-02-04 10:18 J -27839321.20 -27839321.07 -27839320.91 0.0284 0.0230
 Neptune -80933-10-11 18:28 J -27839070.99 -27839070.73 -27839070.47 0.0088 0.0002
 Uranus -80932-01-28 12:42 J -27838962.15 -27838961.97 -27838961.77 0.0133 0.0088
 Neptune -80932-10-14 06:56 J -27838703.45 -27838703.21 -27838702.93 0.0088 0.0029
 Uranus -80931-02-01 09:20 J -27838593.27 -27838593.11 -27838592.93 0.0133 0.0096
 Neptune -80931-10-17 00:13 J -27838335.70 -27838335.49 -27838335.25 0.0088 0.0044
 Mars -80931-12-19 14:23 J -27838272.09 -27838271.90 -27838271.72 0.1960 0.0509
 Uranus -80930-02-05 18:42 J -27838223.78 -27838223.72 -27838223.63 0.0133 0.0128
 Neptune -80930-10-19 09:06 J -27837968.26 -27837968.12 -27837967.94 0.0088 0.0071
 Uranus -80929-02-09 15:06 J -27837854.89 -27837854.87 -27837854.80 0.0134 0.0132
 Neptune -80929-10-21 05:16 J -27837600.32 -27837600.28 -27837600.18 0.0088 0.0086
 Jupiter -80924-09-23 19:54 J -27835801.91 -27835801.67 -27835801.43 0.0495 0.0071
 Saturn -80923-05-29 13:25 J -27835554.05 -27835553.94 -27835553.81 0.0265 0.0227
 Saturn -80922-06-10 09:49 J -27835177.28 -27835177.09 -27835176.89 0.0266 0.0150
 Saturn -80921-06-21 06:13 J -27834800.49 -27834800.24 -27834799.99 0.0268 0.0055
 Saturn -80920-07-03 05:59 J -27834423.50 -27834423.25 -27834422.99 0.0270 0.0047
 Saturn -80919-07-15 18:28 J -27834045.93 -27834045.73 -27834045.52 0.0272 0.0146
 Jupiter -80918-03-18 13:40 J -27833800.07 -27833799.93 -27833799.78 0.0534 0.0420
 Saturn -80918-07-28 21:20 J -27833667.72 -27833667.61 -27833667.48 0.0275 0.0237
 Jupiter -80912-09-28 06:28 J -27831414.45 -27831414.23 -27831414.00 0.0496 0.0184
 Saturn -80909-12-04 10:18 J -27830251.21 -27830251.07 -27830250.90 0.0295 0.0234
 Saturn -80908-12-19 01:11 J -27829871.67 -27829871.45 -27829871.21 0.0294 0.0121
 Mars -80907-06-14 05:44 J -27829694.44 -27829694.26 -27829694.08 0.1581 0.0702
 Saturn -80906-01-02 06:42 J -27829492.47 -27829492.22 -27829491.97 0.0292 0.0006
 Jupiter -80906-03-23 05:01 J -27829412.50 -27829412.29 -27829412.08 0.0532 0.0120
 Saturn -80905-01-16 03:49 J -27829113.56 -27829113.34 -27829113.11 0.0290 0.0102

Saturn	-80904-01-28 18:13 J	-27828734.91	-27828734.74	-27828734.57	0.0287	0.0195
Saturn	-80903-02-10 22:04 J	-27828356.63	-27828356.58	-27828356.51	0.0283	0.0273
Uranus	-80901-06-10 04:04 J	-27827506.39	-27827506.33	-27827506.26	0.0147	0.0142
Uranus	-80900-06-15 03:20 J	-27827136.52	-27827136.36	-27827136.18	0.0147	0.0107
Jupiter	-80900-10-03 08:08 J	-27827026.25	-27827026.16	-27827026.07	0.0498	0.0455
Uranus	-80899-06-20 13:54 J	-27826766.10	-27826765.92	-27826765.71	0.0147	0.0094
Uranus	-80898-06-25 12:42 J	-27826396.19	-27826395.97	-27826395.73	0.0147	0.0055
Uranus	-80897-06-30 01:40 J	-27826025.67	-27826025.43	-27826025.17	0.0147	0.0033
Uranus	-80896-07-05 00:56 J	-27825655.71	-27825655.46	-27825655.20	0.0147	0.0010
Uranus	-80895-07-10 14:37 J	-27825285.14	-27825284.89	-27825284.65	0.0147	0.0029
Jupiter	-80894-03-28 04:18 J	-27825024.54	-27825024.32	-27825024.10	0.0531	0.0166
Saturn	-80894-05-25 03:35 J	-27824966.41	-27824966.35	-27824966.26	0.0265	0.0253
Uranus	-80894-07-15 15:35 J	-27824915.10	-27824914.85	-27824914.60	0.0147	0.0042
Saturn	-80893-06-04 12:28 J	-27824590.15	-27824589.98	-27824589.79	0.0266	0.0187
Uranus	-80893-07-20 03:35 J	-27824544.54	-27824544.35	-27824544.13	0.0146	0.0081
Saturn	-80892-06-16 07:40 J	-27824213.40	-27824213.18	-27824212.95	0.0267	0.0099
Uranus	-80892-07-25 07:11 J	-27824174.37	-27824174.20	-27824174.00	0.0146	0.0104
Saturn	-80891-06-28 13:40 J	-27823836.17	-27823835.93	-27823835.69	0.0268	0.0003
Uranus	-80891-07-30 16:18 J	-27823803.94	-27823803.82	-27823803.67	0.0145	0.0123
Saturn	-80890-07-10 23:44 J	-27823458.74	-27823458.51	-27823458.27	0.0271	0.0102
Saturn	-80889-07-22 13:25 J	-27823081.11	-27823080.94	-27823080.75	0.0273	0.0196
Jupiter	-80882-04-01 15:35 J	-27820636.99	-27820636.85	-27820636.69	0.0530	0.0395
Saturn	-80880-11-28 00:56 J	-27819665.54	-27819665.46	-27819665.38	0.0295	0.0279
Saturn	-80879-12-12 23:44 J	-27819285.70	-27819285.51	-27819285.31	0.0295	0.0170
Saturn	-80878-12-27 14:23 J	-27818906.13	-27818905.90	-27818905.66	0.0293	0.0054
Saturn	-80876-01-09 17:16 J	-27818527.02	-27818526.78	-27818526.54	0.0291	0.0058
Saturn	-80875-01-23 05:44 J	-27818148.47	-27818148.26	-27818148.05	0.0288	0.0154
Saturn	-80874-02-05 06:28 J	-27817770.35	-27817770.23	-27817770.08	0.0284	0.0237
Jupiter	-80865-09-13 13:54 J	-27814261.98	-27814261.92	-27814261.86	0.0492	0.0474
Saturn	-80864-05-30 19:25 J	-27814002.81	-27814002.69	-27814002.55	0.0265	0.0220

Saturn -80863-06-11 11:01 J -27813626.24 -27813626.04 -27813625.81 0.0266 0.0139
 Saturn -80862-06-23 03:20 J -27813249.61 -27813249.36 -27813249.11 0.0268 0.0038
 Pluto -80862-07-29 03:35 J -27813213.61 -27813213.35 -27813213.06 0.0066 0.0008
 Saturn -80861-07-04 07:25 J -27812872.42 -27812872.19 -27812871.94 0.0270 0.0063
 Mars -80860-06-08 22:47 J -27812532.70 -27812532.55 -27812532.40 0.1586 0.0964
 Saturn -80860-07-17 00:56 J -27812494.65 -27812494.46 -27812494.26 0.0272 0.0158
 Uranus -80860-12-17 04:47 J -27812341.39 -27812341.30 -27812341.17 0.0132 0.0117
 Saturn -80859-07-30 02:37 J -27812116.50 -27812116.39 -27812116.28 0.0275 0.0246
 Uranus -80859-12-21 15:49 J -27811971.99 -27811971.84 -27811971.68 0.0131 0.0105
 Uranus -80858-12-25 13:25 J -27811603.11 -27811602.94 -27811602.74 0.0131 0.0086
 Uranus -80857-12-28 23:16 J -27811233.75 -27811233.53 -27811233.29 0.0131 0.0063
 Uranus -80855-01-01 20:37 J -27810864.86 -27810864.64 -27810864.41 0.0131 0.0053
 Uranus -80854-01-06 05:59 J -27810495.50 -27810495.25 -27810495.00 0.0132 0.0021
 Neptune -80854-04-01 20:37 J -27810409.76 -27810409.64 -27810409.47 0.0089 0.0074
 Uranus -80853-01-10 02:37 J -27810126.63 -27810126.39 -27810126.14 0.0132 0.0015
 Neptune -80853-04-03 04:32 J -27810042.47 -27810042.31 -27810042.12 0.0089 0.0061
 Jupiter -80853-09-18 13:11 J -27809874.14 -27809873.95 -27809873.75 0.0494 0.0287
 Uranus -80852-01-13 11:44 J -27809757.27 -27809757.01 -27809756.76 0.0132 0.0017
 Neptune -80852-04-05 11:59 J -27809675.21 -27809675.00 -27809674.74 0.0089 0.0034
 Uranus -80851-01-17 08:08 J -27809388.39 -27809388.16 -27809387.91 0.0132 0.0026
 Neptune -80851-04-08 01:25 J -27809307.67 -27809307.44 -27809307.20 0.0089 0.0021
 Uranus -80850-01-21 16:47 J -27809019.03 -27809018.80 -27809018.56 0.0132 0.0050
 Neptune -80850-04-10 04:47 J -27808940.55 -27808940.30 -27808940.04 0.0089 0.0007
 Saturn -80850-12-06 07:40 J -27808700.33 -27808700.18 -27808700.00 0.0295 0.0226
 Uranus -80849-01-25 13:11 J -27808650.14 -27808649.95 -27808649.73 0.0132 0.0070
 Neptune -80849-04-11 20:23 J -27808572.88 -27808572.65 -27808572.40 0.0089 0.0020
 Saturn -80849-12-19 22:18 J -27808320.80 -27808320.57 -27808320.35 0.0294 0.0112
 Uranus -80848-01-28 21:35 J -27808280.77 -27808280.60 -27808280.38 0.0133 0.0084
 Neptune -80848-04-13 22:47 J -27808205.74 -27808205.55 -27808205.33 0.0089 0.0048
 Saturn -80847-01-03 06:28 J -27807941.47 -27807941.23 -27807940.99 0.0292 0.0005

Uranus -80847-02-01 18:28 J -27807911.83 -27807911.73 -27807911.58 0.0133 0.0113
 Neptune -80847-04-16 14:08 J -27807838.09 -27807837.91 -27807837.72 0.0089 0.0061
 Saturn -80846-01-17 07:25 J -27807562.40 -27807562.19 -27807561.97 0.0290 0.0111
 Uranus -80846-02-06 03:20 J -27807542.45 -27807542.36 -27807542.22 0.0133 0.0119
 Neptune -80846-04-18 18:42 J -27807470.72 -27807470.72 -27807470.68 0.0089 0.0089
 Saturn -80845-01-30 21:35 J -27807183.76 -27807183.60 -27807183.43 0.0287 0.0202
 Saturn -80844-02-11 20:37 J -27806805.66 -27806805.64 -27806805.59 0.0283 0.0280
 Jupiter -80841-09-22 21:49 J -27805486.83 -27805486.59 -27805486.35 0.0495 0.0081
 Jupiter -80835-03-17 14:52 J -27803484.99 -27803484.88 -27803484.76 0.0534 0.0450
 Saturn -80835-05-25 23:59 J -27803415.57 -27803415.50 -27803415.40 0.0265 0.0248
 Saturn -80834-06-06 13:40 J -27803039.10 -27803038.93 -27803038.75 0.0266 0.0177
 Saturn -80833-06-17 13:54 J -27802662.14 -27802661.92 -27802661.69 0.0267 0.0085
 Saturn -80832-06-29 17:01 J -27802285.04 -27802284.79 -27802284.54 0.0268 0.0018
 Saturn -80831-07-11 22:18 J -27801907.79 -27801907.57 -27801907.33 0.0271 0.0117
 Saturn -80830-07-24 14:08 J -27801530.06 -27801529.91 -27801529.74 0.0273 0.0209
 Jupiter -80829-09-27 20:52 J -27801098.85 -27801098.63 -27801098.41 0.0496 0.0179
 Mars -80828-06-16 11:01 J -27800837.18 -27800837.04 -27800836.89 0.1580 0.1027
 Jupiter -80823-03-22 14:08 J -27799097.13 -27799096.91 -27799096.68 0.0533 0.0137
 Saturn -80821-11-29 09:06 J -27798114.21 -27798114.12 -27798114.02 0.0295 0.0269
 Saturn -80820-12-14 06:56 J -27797734.41 -27797734.21 -27797734.00 0.0295 0.0159
 Saturn -80819-12-28 17:59 J -27797355.00 -27797354.75 -27797354.51 0.0293 0.0043
 Saturn -80817-01-11 16:32 J -27796976.05 -27796975.81 -27796975.56 0.0291 0.0067
 Uranus -80817-06-10 13:11 J -27796825.05 -27796824.95 -27796824.84 0.0147 0.0133
 Jupiter -80817-10-02 08:08 J -27796711.27 -27796711.16 -27796711.03 0.0497 0.0433
 Saturn -80816-01-24 04:47 J -27796597.50 -27796597.30 -27796597.10 0.0288 0.0164
 Uranus -80816-06-15 13:40 J -27796455.07 -27796454.93 -27796454.78 0.0147 0.0118
 Saturn -80815-02-06 10:32 J -27796219.16 -27796219.06 -27796218.94 0.0285 0.0249
 Uranus -80815-06-20 23:30 J -27796084.74 -27796084.52 -27796084.30 0.0147 0.0077
 Uranus -80814-06-25 23:01 J -27795714.76 -27795714.54 -27795714.31 0.0147 0.0062
 Uranus -80813-06-30 11:44 J -27795344.26 -27795344.01 -27795343.75 0.0147 0.0029

Uranus -80812-07-05 10:47 J -27794974.30 -27794974.05 -27794973.79 0.0147 0.0003
 Jupiter -80811-03-27 04:18 J -27794709.53 -27794709.32 -27794709.10 0.0532 0.0146
 Uranus -80811-07-11 00:28 J -27794603.72 -27794603.48 -27794603.22 0.0147 0.0018
 Uranus -80810-07-16 00:28 J -27794233.70 -27794233.48 -27794233.23 0.0147 0.0061
 Uranus -80809-07-20 13:11 J -27793863.15 -27793862.95 -27793862.72 0.0146 0.0078
 Uranus -80808-07-25 15:35 J -27793493.01 -27793492.85 -27793492.65 0.0146 0.0107
 Uranus -80807-07-31 01:40 J -27793122.48 -27793122.43 -27793122.33 0.0145 0.0139
 Saturn -80805-05-31 23:44 J -27792451.66 -27792451.51 -27792451.36 0.0265 0.0210
 Saturn -80804-06-12 10:47 J -27792075.27 -27792075.05 -27792074.82 0.0266 0.0125
 Saturn -80803-06-24 07:25 J -27791698.43 -27791698.19 -27791697.95 0.0268 0.0025
 Saturn -80802-07-06 16:47 J -27791321.03 -27791320.80 -27791320.57 0.0270 0.0077
 Saturn -80801-07-18 09:06 J -27790943.31 -27790943.12 -27790942.93 0.0272 0.0173
 Saturn -80800-07-31 05:30 J -27790565.35 -27790565.27 -27790565.17 0.0275 0.0256
 Jupiter -80799-04-01 08:23 J -27790321.31 -27790321.15 -27790320.99 0.0530 0.0370
 Saturn -80791-12-07 11:16 J -27787149.19 -27787149.03 -27787148.85 0.0295 0.0214
 Saturn -80790-12-22 04:32 J -27786769.52 -27786769.31 -27786769.08 0.0294 0.0102
 Saturn -80788-01-04 15:06 J -27786390.11 -27786389.87 -27786389.64 0.0292 0.0014
 Saturn -80787-01-18 14:23 J -27786011.11 -27786010.90 -27786010.68 0.0289 0.0121
 Saturn -80786-01-31 23:16 J -27785632.69 -27785632.53 -27785632.36 0.0286 0.0213
 Jupiter -80782-09-14 03:20 J -27783946.39 -27783946.36 -27783946.32 0.0493 0.0486
 Mars -80781-06-10 22:18 J -27783675.75 -27783675.57 -27783675.39 0.1585 0.0031
 Saturn -80776-05-27 02:52 J -27781864.47 -27781864.38 -27781864.27 0.0265 0.0241
 Uranus -80776-12-17 13:25 J -27781660.00 -27781659.94 -27781659.87 0.0132 0.0126
 Pluto -80775-02-02 02:37 J -27781613.65 -27781613.39 -27781613.13 0.0078 0.0004
 Saturn -80775-06-07 22:04 J -27781487.77 -27781487.58 -27781487.40 0.0266 0.0165
 Uranus -80775-12-21 23:01 J -27781290.69 -27781290.54 -27781290.35 0.0131 0.0100
 Saturn -80774-06-19 20:08 J -27781110.90 -27781110.66 -27781110.42 0.0267 0.0072
 Uranus -80774-12-25 22:18 J -27780921.76 -27780921.57 -27780921.38 0.0131 0.0084
 Saturn -80773-06-30 18:13 J -27780734.00 -27780733.74 -27780733.49 0.0269 0.0033
 Uranus -80773-12-29 07:25 J -27780552.41 -27780552.19 -27780551.96 0.0131 0.0068

Saturn -80772-07-13 01:11 J -27780356.66 -27780356.45 -27780356.22 0.0271 0.0132
 Neptune -80772-10-04 05:30 J -27780273.43 -27780273.27 -27780273.07 0.0088 0.0063
 Uranus -80771-01-02 05:30 J -27780183.50 -27780183.27 -27780183.03 0.0132 0.0041
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 Neptune -80771-10-06 22:47 J -27779905.78 -27779905.55 -27779905.32 0.0088 0.0050
 Uranus -80770-01-06 13:54 J -27779814.17 -27779813.92 -27779813.67 0.0132 0.0032
 Jupiter -80770-09-18 10:18 J -27779559.26 -27779559.07 -27779558.88 0.0493 0.0303
 Neptune -80770-10-09 13:11 J -27779538.20 -27779537.95 -27779537.70 0.0088 0.0022
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 Jupiter -80758-09-23 09:20 J -27775171.34 -27775171.11 -27775170.87 0.0494 0.0096
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 Saturn -80747-05-22 17:01 J -27771276.80 -27771276.79 -27771276.74 0.0265 0.0263
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 Jupiter -80740-03-21 14:23 J -27768782.11 -27768781.90 -27768781.68 0.0533 0.0158
 Jupiter -80734-10-02 14:23 J -27766396.02 -27766395.90 -27766395.77 0.0497 0.0414
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 Uranus -80732-06-16 01:11 J -27765773.61 -27765773.45 -27765773.26 0.0147 0.0104
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 Uranus -80723-07-31 13:11 J -27762441.03 -27762440.95 -27762440.83 0.0145 0.0134
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 Jupiter -80716-03-31 02:23 J -27760006.57 -27760006.40 -27760006.21 0.0530 0.0328
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 Saturn -80703-12-03 05:01 J -27755011.43 -27755011.29 -27755011.13 0.0295 0.0239
 Mars -80702-06-13 14:52 J -27754819.06 -27754818.88 -27754818.70 0.1583 0.0197
 Saturn -80702-12-17 19:54 J -27754631.89 -27754631.67 -27754631.44 0.0294 0.0130
 Saturn -80701-12-31 04:47 J -27754252.54 -27754252.30 -27754252.06 0.0293 0.0018
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 Saturn -80698-01-28 00:13 J -27753494.67 -27753494.49 -27753494.31 0.0287 0.0189
 Saturn -80697-02-10 04:47 J -27753116.37 -27753116.30 -27753116.23 0.0284 0.0270
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 Neptune -80690-04-01 11:01 J -27750509.08 -27750509.04 -27750508.99 0.0089 0.0087
 Uranus -80690-12-26 07:11 J -27750240.39 -27750240.20 -27750240.01 0.0131 0.0082
 Neptune -80689-04-02 17:16 J -27750141.94 -27750141.78 -27750141.58 0.0089 0.0063
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 Saturn -80688-05-23 21:20 J -27749725.68 -27749725.61 -27749725.53 0.0265 0.0252
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 Neptune -80687-04-07 09:20 J -27749407.34 -27749407.11 -27749406.85 0.0089 0.0023
 Saturn -80687-06-04 06:13 J -27749349.41 -27749349.24 -27749349.06 0.0266 0.0186
 Jupiter -80687-09-17 20:08 J -27749243.83 -27749243.66 -27749243.48 0.0493 0.0329
 Uranus -80686-01-06 21:49 J -27749132.85 -27749132.59 -27749132.33 0.0132 0.0017
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 Saturn -80686-06-16 03:06 J -27748972.59 -27748972.37 -27748972.15 0.0267 0.0096
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 Uranus -80680-01-29 14:08 J -27746918.07 -27746917.91 -27746917.71 0.0133 0.0093
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 Saturn -80658-05-30 22:32 J -27738761.70 -27738761.56 -27738761.42 0.0266 0.0217
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 Mars -80655-06-07 23:01 J -27737657.69 -27737657.54 -27737657.39 0.1590 0.0909
 Saturn -80655-07-04 11:01 J -27737631.27 -27737631.04 -27737630.80 0.0269 0.0063
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Mars -80647-12-18 16:18 J -27734542.04 -27734541.82 -27734541.61 0.1957 0.0210
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 Jupiter -80604-09-16 14:37 J -27718929.06 -27718928.89 -27718928.72 0.0493 0.0351
 Neptune -80604-10-12 23:16 J -27718902.79 -27718902.53 -27718902.25 0.0088 0.0007
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 Mars -80576-06-09 23:16 J -27708800.71 -27708800.53 -27708800.35 0.1588 0.0591
 Jupiter -80574-03-20 11:59 J -27708152.20 -27708152.00 -27708151.79 0.0534 0.0232
 Saturn -80570-05-27 13:11 J -27706623.06 -27706622.95 -27706622.83 0.0265 0.0232
 Saturn -80569-06-07 08:08 J -27706246.34 -27706246.16 -27706245.96 0.0266 0.0156
 Saturn -80568-06-19 02:52 J -27705869.62 -27705869.38 -27705869.13 0.0267 0.0060
 Jupiter -80568-09-30 11:59 J -27705766.16 -27705766.00 -27705765.84 0.0496 0.0359
 Mars -80568-12-22 12:28 J -27705683.02 -27705682.98 -27705682.94 0.1960 0.1903
 Saturn -80567-06-30 23:44 J -27705492.76 -27705492.51 -27705492.26 0.0269 0.0041
 Saturn -80566-07-13 07:40 J -27705115.38 -27705115.18 -27705114.96 0.0271 0.0139
 Uranus -80565-06-11 13:54 J -27704781.00 -27704780.92 -27704780.80 0.0147 0.0136
 Saturn -80565-07-25 05:44 J -27704737.38 -27704737.26 -27704737.11 0.0273 0.0226
 Uranus -80564-06-16 18:13 J -27704410.90 -27704410.74 -27704410.55 0.0147 0.0102
 Uranus -80563-06-22 00:13 J -27704040.68 -27704040.49 -27704040.26 0.0147 0.0087
 Jupiter -80562-03-25 14:23 J -27703764.12 -27703763.90 -27703763.69 0.0533 0.0034
 Uranus -80562-06-27 03:06 J -27703670.60 -27703670.37 -27703670.13 0.0147 0.0045
 Uranus -80561-07-01 13:25 J -27703300.20 -27703299.94 -27703299.68 0.0147 0.0024
 Uranus -80560-07-06 14:23 J -27702930.15 -27702929.90 -27702929.64 0.0147 0.0004
 Uranus -80559-07-12 03:49 J -27702559.58 -27702559.34 -27702559.08 0.0147 0.0043
 Uranus -80558-07-17 04:04 J -27702189.56 -27702189.33 -27702189.09 0.0147 0.0058
 Uranus -80557-07-21 18:42 J -27701818.91 -27701818.72 -27701818.53 0.0146 0.0100
 Uranus -80556-07-26 18:28 J -27701448.86 -27701448.73 -27701448.57 0.0146 0.0121
 Saturn -80556-11-30 08:08 J -27701322.28 -27701322.16 -27701322.03 0.0295 0.0256
 Uranus -80555-08-01 07:54 J -27701078.20 -27701078.17 -27701078.13 0.0146 0.0144
 Saturn -80555-12-15 00:56 J -27700942.68 -27700942.46 -27700942.24 0.0294 0.0147

Saturn -80554-12-29 10:04 J -27700563.32 -27700563.08 -27700562.83 0.0293 0.0033
 Saturn -80552-01-11 12:42 J -27700184.20 -27700183.97 -27700183.74 0.0290 0.0077
 Saturn -80551-01-25 08:23 J -27699805.33 -27699805.15 -27699804.96 0.0288 0.0174
 Saturn -80550-02-07 17:01 J -27699426.87 -27699426.79 -27699426.68 0.0285 0.0259
 Jupiter -80550-03-30 08:37 J -27699376.34 -27699376.14 -27699375.93 0.0531 0.0252
 Mars -80544-06-17 11:01 J -27697105.10 -27697105.04 -27697104.97 0.1581 0.1476
 Saturn -80541-05-22 02:37 J -27696035.45 -27696035.39 -27696035.33 0.0266 0.0256
 Saturn -80540-06-02 09:49 J -27695659.25 -27695659.09 -27695658.90 0.0266 0.0190
 Saturn -80539-06-14 03:20 J -27695282.58 -27695282.36 -27695282.14 0.0267 0.0102
 Jupiter -80538-04-03 23:30 J -27694988.57 -27694988.52 -27694988.47 0.0529 0.0511
 Saturn -80538-06-26 07:11 J -27694905.44 -27694905.20 -27694904.96 0.0268 0.0002
 Saturn -80537-07-07 14:08 J -27694528.14 -27694527.91 -27694527.67 0.0270 0.0097
 Saturn -80536-07-19 23:44 J -27694150.68 -27694150.51 -27694150.31 0.0272 0.0188
 Saturn -80535-08-01 20:37 J -27693772.66 -27693772.64 -27693772.58 0.0275 0.0271
 Pluto -80529-02-03 02:08 J -27691761.58 -27691761.41 -27691761.21 0.0079 0.0055
 Saturn -80526-12-09 09:06 J -27690356.31 -27690356.12 -27690355.94 0.0295 0.0189
 Neptune -80525-04-02 11:59 J -27690241.15 -27690241.00 -27690240.84 0.0089 0.0068
 Saturn -80525-12-23 03:06 J -27689976.60 -27689976.37 -27689976.13 0.0294 0.0073
 Neptune -80524-04-04 14:37 J -27689874.07 -27689873.89 -27689873.68 0.0089 0.0056
 Uranus -80524-12-18 15:35 J -27689615.95 -27689615.85 -27689615.70 0.0131 0.0114
 Saturn -80523-01-06 10:04 J -27689597.32 -27689597.08 -27689596.83 0.0292 0.0042
 Neptune -80523-04-07 06:13 J -27689506.46 -27689506.24 -27689505.98 0.0089 0.0029
 Uranus -80523-12-22 21:35 J -27689246.75 -27689246.60 -27689246.42 0.0131 0.0103
 Saturn -80522-01-20 03:06 J -27689218.59 -27689218.37 -27689218.15 0.0290 0.0142
 Neptune -80522-04-09 09:20 J -27689139.35 -27689139.11 -27689138.87 0.0089 0.0016
 Uranus -80522-12-26 23:59 J -27688877.69 -27688877.50 -27688877.29 0.0131 0.0079
 Saturn -80521-02-02 09:49 J -27688840.22 -27688840.09 -27688839.93 0.0287 0.0230
 Neptune -80521-04-10 23:16 J -27688771.78 -27688771.53 -27688771.27 0.0089 0.0011
 Jupiter -80521-09-15 20:23 J -27688613.80 -27688613.65 -27688613.51 0.0493 0.0378
 Uranus -80521-12-30 05:16 J -27688508.49 -27688508.28 -27688508.03 0.0131 0.0060

Neptune -80520-04-13 04:47 J -27688404.52 -27688404.30 -27688404.05 0.0089 0.0024
 Uranus -80519-01-03 07:11 J -27688139.42 -27688139.20 -27688138.96 0.0131 0.0044
 Neptune -80519-04-15 14:08 J -27688037.10 -27688036.91 -27688036.68 0.0089 0.0051
 Uranus -80518-01-07 12:28 J -27687770.24 -27687769.98 -27687769.72 0.0131 0.0013
 Neptune -80518-04-18 01:11 J -27687669.60 -27687669.45 -27687669.27 0.0089 0.0064
 Uranus -80517-01-11 13:54 J -27687401.16 -27687400.92 -27687400.67 0.0131 0.0005
 Uranus -80516-01-14 18:28 J -27687031.97 -27687031.73 -27687031.46 0.0132 0.0029
 Uranus -80515-01-18 19:40 J -27686662.91 -27686662.68 -27686662.44 0.0132 0.0037
 Uranus -80514-01-22 23:30 J -27686293.73 -27686293.52 -27686293.28 0.0132 0.0066
 Uranus -80513-01-27 00:13 J -27685924.66 -27685924.49 -27685924.28 0.0132 0.0083
 Uranus -80512-01-30 04:04 J -27685555.48 -27685555.33 -27685555.15 0.0133 0.0102
 Uranus -80511-02-03 04:47 J -27685186.34 -27685186.30 -27685186.21 0.0133 0.0128
 Saturn -80511-05-29 02:37 J -27685071.51 -27685071.39 -27685071.25 0.0265 0.0220
 Saturn -80510-06-09 18:28 J -27684694.94 -27684694.73 -27684694.52 0.0266 0.0141
 Saturn -80509-06-20 08:52 J -27684318.38 -27684318.13 -27684317.88 0.0267 0.0041
 Jupiter -80509-09-20 09:49 J -27684226.33 -27684226.09 -27684225.85 0.0493 0.0155
 Saturn -80508-07-02 09:49 J -27683941.32 -27683941.09 -27683940.85 0.0269 0.0060
 Saturn -80507-07-14 23:44 J -27683563.70 -27683563.51 -27683563.30 0.0271 0.0155
 Saturn -80506-07-27 22:04 J -27683185.70 -27683185.58 -27683185.47 0.0274 0.0241
 Mars -80497-06-12 05:16 J -27679943.47 -27679943.28 -27679943.09 0.1586 0.0420
 Jupiter -80497-09-24 21:20 J -27679838.84 -27679838.61 -27679838.38 0.0495 0.0105
 Saturn -80497-12-01 23:44 J -27679770.65 -27679770.51 -27679770.35 0.0295 0.0240
 Saturn -80496-12-16 16:47 J -27679391.01 -27679390.80 -27679390.57 0.0294 0.0129
 Saturn -80495-12-31 04:32 J -27679011.54 -27679011.31 -27679011.07 0.0292 0.0013
 Saturn -80493-01-14 09:06 J -27678632.34 -27678632.12 -27678631.90 0.0290 0.0096
 Saturn -80492-01-27 02:52 J -27678253.55 -27678253.38 -27678253.19 0.0287 0.0190
 Saturn -80491-02-09 05:59 J -27677875.31 -27677875.25 -27677875.17 0.0284 0.0272
 Jupiter -80491-03-19 20:52 J -27677836.82 -27677836.63 -27677836.43 0.0534 0.0254
 Jupiter -80485-09-29 18:42 J -27675450.90 -27675450.72 -27675450.54 0.0496 0.0331
 Saturn -80482-05-24 05:30 J -27674484.35 -27674484.27 -27674484.17 0.0266 0.0247

Saturn	-80481-06-03 17:16 J	-27674107.95	-27674107.78	-27674107.59	0.0266	0.0176
Uranus	-80481-06-11 17:59 J	-27674099.85	-27674099.75	-27674099.64	0.0147	0.0134
Saturn	-80480-06-15 15:49 J	-27673731.06	-27673730.84	-27673730.61	0.0267	0.0084
Uranus	-80480-06-16 23:44 J	-27673729.64	-27673729.51	-27673729.33	0.0147	0.0113
Jupiter	-80479-03-24 13:54 J	-27673449.16	-27673448.92	-27673448.69	0.0533	0.0007
Uranus	-80479-06-22 05:01 J	-27673359.52	-27673359.29	-27673359.06	0.0147	0.0071
Saturn	-80479-06-27 17:16 J	-27673354.02	-27673353.78	-27673353.52	0.0268	0.0019
Uranus	-80478-06-27 09:06 J	-27672989.34	-27672989.12	-27672988.88	0.0147	0.0057
Saturn	-80478-07-09 20:08 J	-27672976.88	-27672976.66	-27672976.42	0.0270	0.0115
Uranus	-80477-07-01 18:28 J	-27672618.98	-27672618.73	-27672618.46	0.0147	0.0019
Saturn	-80477-07-21 08:37 J	-27672599.30	-27672599.14	-27672598.97	0.0272	0.0205
Uranus	-80476-07-06 20:52 J	-27672248.88	-27672248.63	-27672248.38	0.0147	0.0011
Uranus	-80475-07-12 09:20 J	-27671878.36	-27671878.11	-27671877.85	0.0147	0.0032
Uranus	-80474-07-17 09:35 J	-27671508.30	-27671508.10	-27671507.87	0.0147	0.0077
Uranus	-80473-07-21 23:30 J	-27671137.70	-27671137.52	-27671137.30	0.0146	0.0093
Uranus	-80472-07-26 23:30 J	-27670767.63	-27670767.52	-27670767.38	0.0146	0.0127
Saturn	-80468-11-26 04:47 J	-27669184.36	-27669184.30	-27669184.21	0.0295	0.0280
Jupiter	-80467-03-29 02:37 J	-27669061.59	-27669061.39	-27669061.19	0.0532	0.0205
Saturn	-80467-12-11 05:01 J	-27668804.49	-27668804.29	-27668804.09	0.0295	0.0170
Saturn	-80466-12-25 19:11 J	-27668424.95	-27668424.70	-27668424.46	0.0294	0.0054
Saturn	-80464-01-07 21:49 J	-27668045.83	-27668045.59	-27668045.34	0.0292	0.0059
Saturn	-80463-01-21 14:37 J	-27667667.09	-27667666.89	-27667666.68	0.0289	0.0159
Saturn	-80462-02-04 00:56 J	-27667288.57	-27667288.46	-27667288.34	0.0286	0.0247
Jupiter	-80455-04-03 00:56 J	-27664673.56	-27664673.46	-27664673.35	0.0530	0.0470
Saturn	-80452-05-30 12:13 J	-27663520.13	-27663519.99	-27663519.83	0.0265	0.0207
Saturn	-80451-06-10 22:47 J	-27663143.76	-27663143.55	-27663143.31	0.0266	0.0124
Mars	-80450-06-07 21:06 J	-27662781.74	-27662781.62	-27662781.50	0.1593	0.1228
Saturn	-80450-06-22 17:01 J	-27662767.04	-27662766.79	-27662766.55	0.0267	0.0024
Saturn	-80449-07-03 23:44 J	-27662389.74	-27662389.51	-27662389.28	0.0269	0.0077
Saturn	-80448-07-16 13:40 J	-27662012.11	-27662011.93	-27662011.73	0.0271	0.0173

Saturn -80447-07-29 07:25 J -27661634.27 -27661634.19 -27661634.09 0.0274 0.0255
 Neptune -80444-10-03 03:06 J -27660472.39 -27660472.37 -27660472.29 0.0088 0.0087
 Neptune -80443-10-05 13:40 J -27660105.14 -27660104.93 -27660104.73 0.0088 0.0057
 Neptune -80442-10-08 10:04 J -27659737.29 -27659737.08 -27659736.84 0.0088 0.0046
 Neptune -80441-10-09 17:44 J -27659370.01 -27659369.76 -27659369.49 0.0088 0.0016
 Uranus -80441-12-14 18:56 J -27659303.72 -27659303.71 -27659303.66 0.0132 0.0131
 Neptune -80440-10-12 15:35 J -27659002.11 -27659001.85 -27659001.58 0.0088 0.0004
 Uranus -80440-12-19 00:13 J -27658934.55 -27658934.49 -27658934.40 0.0131 0.0124
 Neptune -80439-10-14 23:16 J -27658634.76 -27658634.53 -27658634.26 0.0088 0.0026
 Uranus -80439-12-23 05:30 J -27658565.45 -27658565.27 -27658565.09 0.0131 0.0094
 Jupiter -80438-09-15 20:37 J -27658298.78 -27658298.64 -27658298.50 0.0492 0.0405
 Neptune -80438-10-17 19:11 J -27658266.94 -27658266.70 -27658266.45 0.0088 0.0039
 Saturn -80438-12-04 15:49 J -27658219.00 -27658218.84 -27658218.68 0.0295 0.0221
 Uranus -80438-12-27 09:20 J -27658196.29 -27658196.11 -27658195.91 0.0131 0.0081
 Neptune -80437-10-19 05:30 J -27657899.41 -27657899.27 -27657899.08 0.0088 0.0067
 Saturn -80437-12-18 11:59 J -27657839.22 -27657839.00 -27657838.78 0.0294 0.0109
 Uranus -80437-12-30 13:25 J -27657827.16 -27657826.94 -27657826.69 0.0131 0.0059
 Neptune -80436-10-21 20:52 J -27657531.73 -27657531.63 -27657531.49 0.0088 0.0080
 Saturn -80435-01-02 01:11 J -27657459.69 -27657459.45 -27657459.22 0.0292 0.0008
 Uranus -80435-01-03 16:47 J -27657458.04 -27657457.80 -27657457.56 0.0131 0.0035
 Uranus -80434-01-07 19:54 J -27657088.92 -27657088.67 -27657088.40 0.0131 0.0022
 Saturn -80434-01-16 03:20 J -27657080.58 -27657080.36 -27657080.14 0.0290 0.0115
 Uranus -80433-01-11 22:32 J -27656719.79 -27656719.56 -27656719.31 0.0131 0.0012
 Saturn -80433-01-29 15:49 J -27656702.01 -27656701.84 -27656701.67 0.0287 0.0208
 Uranus -80432-01-15 01:40 J -27656350.68 -27656350.43 -27656350.16 0.0132 0.0019
 Uranus -80431-01-19 04:04 J -27655981.55 -27655981.33 -27655981.10 0.0132 0.0051
 Uranus -80430-01-23 06:42 J -27655612.43 -27655612.22 -27655611.98 0.0132 0.0062
 Uranus -80429-01-27 09:35 J -27655243.28 -27655243.10 -27655242.92 0.0132 0.0089
 Uranus -80428-01-30 11:44 J -27654874.13 -27654874.01 -27654873.84 0.0133 0.0109
 Uranus -80427-02-03 14:37 J -27654504.96 -27654504.89 -27654504.79 0.0133 0.0124

Jupiter -80426-09-20 06:28 J -27653911.44 -27653911.23 -27653911.00 0.0493 0.0180
 Saturn -80423-05-25 10:32 J -27652933.15 -27652933.06 -27652932.94 0.0266 0.0237
 Saturn -80422-06-06 04:04 J -27652556.52 -27652556.33 -27652556.15 0.0266 0.0161
 Saturn -80421-06-17 00:42 J -27652179.71 -27652179.47 -27652179.23 0.0267 0.0069
 Saturn -80420-06-28 20:23 J -27651802.90 -27651802.65 -27651802.39 0.0268 0.0036
 Saturn -80419-07-11 00:42 J -27651425.68 -27651425.47 -27651425.25 0.0270 0.0133
 Mars -80418-06-15 08:23 J -27651086.32 -27651086.15 -27651085.98 0.1584 0.0661
 Saturn -80418-07-23 19:11 J -27651047.83 -27651047.70 -27651047.55 0.0273 0.0221
 Jupiter -80414-09-25 05:16 J -27649523.52 -27649523.28 -27649523.04 0.0494 0.0087
 Saturn -80409-11-27 22:18 J -27647632.67 -27647632.57 -27647632.44 0.0295 0.0261
 Jupiter -80408-03-18 13:54 J -27647522.11 -27647521.92 -27647521.72 0.0534 0.0298
 Saturn -80408-12-12 18:28 J -27647252.94 -27647252.73 -27647252.50 0.0295 0.0152
 Saturn -80407-12-27 05:44 J -27646873.51 -27646873.26 -27646873.01 0.0294 0.0038
 Saturn -80405-01-10 08:52 J -27646494.36 -27646494.13 -27646493.89 0.0292 0.0075
 Saturn -80404-01-23 05:01 J -27646115.47 -27646115.29 -27646115.10 0.0289 0.0178
 Saturn -80403-02-05 17:01 J -27645736.86 -27645736.79 -27645736.69 0.0286 0.0263
 Jupiter -80402-09-29 14:37 J -27645136.08 -27645135.89 -27645135.70 0.0495 0.0307
 Uranus -80397-06-11 23:59 J -27643418.59 -27643418.50 -27643418.37 0.0147 0.0134
 Jupiter -80396-03-23 08:52 J -27643134.35 -27643134.13 -27643133.92 0.0534 0.0056
 Uranus -80396-06-17 07:40 J -27643048.35 -27643048.18 -27643048.00 0.0147 0.0102
 Uranus -80395-06-22 10:47 J -27642678.27 -27642678.05 -27642677.83 0.0147 0.0084
 Saturn -80394-05-21 06:56 J -27642345.25 -27642345.21 -27642345.13 0.0265 0.0257
 Uranus -80394-06-27 16:18 J -27642308.05 -27642307.82 -27642307.57 0.0147 0.0042
 Saturn -80393-05-31 14:08 J -27641969.07 -27641968.91 -27641968.73 0.0265 0.0193
 Uranus -80393-07-01 23:59 J -27641937.76 -27641937.50 -27641937.23 0.0147 0.0022
 Saturn -80392-06-12 02:08 J -27641592.62 -27641592.41 -27641592.18 0.0266 0.0109
 Uranus -80392-07-07 03:35 J -27641567.60 -27641567.35 -27641567.10 0.0147 0.0010
 Saturn -80391-06-24 02:37 J -27641215.63 -27641215.39 -27641215.15 0.0267 0.0008
 Uranus -80391-07-12 15:06 J -27641197.11 -27641196.87 -27641196.61 0.0147 0.0048
 Saturn -80390-07-06 10:04 J -27640838.31 -27640838.08 -27640837.85 0.0269 0.0094

Uranus -80390-07-17 16:18 J -27640827.04 -27640826.82 -27640826.59 0.0147 0.0065
 Jupiter -80390-10-04 12:42 J -27640748.01 -27640747.97 -27640747.93 0.0497 0.0487
 Saturn -80389-07-17 19:54 J -27640460.86 -27640460.67 -27640460.49 0.0271 0.0186
 Uranus -80389-07-22 06:28 J -27640456.40 -27640456.23 -27640456.05 0.0146 0.0108
 Uranus -80388-07-27 06:13 J -27640086.36 -27640086.24 -27640086.11 0.0146 0.0127
 Saturn -80388-07-30 12:28 J -27640083.03 -27640082.98 -27640082.93 0.0274 0.0268
 Jupiter -80384-03-28 09:35 J -27638746.32 -27638746.10 -27638745.88 0.0532 0.0172
 Saturn -80379-12-06 08:52 J -27636667.29 -27636667.13 -27636666.95 0.0295 0.0204
 Saturn -80378-12-21 06:13 J -27636287.46 -27636287.24 -27636287.01 0.0294 0.0092
 Saturn -80376-01-03 17:16 J -27635908.02 -27635907.78 -27635907.53 0.0292 0.0023
 Saturn -80375-01-17 14:37 J -27635529.10 -27635528.89 -27635528.66 0.0290 0.0131
 Saturn -80374-01-30 23:30 J -27635150.68 -27635150.52 -27635150.37 0.0287 0.0222
 Jupiter -80372-04-02 00:28 J -27634358.59 -27634358.48 -27634358.36 0.0531 0.0454
 Mars -80371-06-09 17:59 J -27633924.92 -27633924.75 -27633924.57 0.1591 0.0418
 Pluto -80369-07-31 09:20 J -27633142.35 -27633142.11 -27633141.87 0.0066 0.0032
 Saturn -80364-05-26 18:28 J -27631381.85 -27631381.73 -27631381.60 0.0265 0.0224
 Saturn -80363-06-07 11:30 J -27631005.23 -27631005.02 -27631004.82 0.0266 0.0146
 Mars -80363-12-16 07:11 J -27630813.40 -27630813.20 -27630812.99 0.1952 0.0560
 Saturn -80362-06-19 02:08 J -27630628.65 -27630628.41 -27630628.15 0.0267 0.0051
 Neptune -80361-04-01 19:11 J -27630340.80 -27630340.70 -27630340.60 0.0089 0.0081
 Saturn -80361-06-29 22:18 J -27630251.81 -27630251.57 -27630251.33 0.0268 0.0053
 Neptune -80360-04-04 10:47 J -27629973.23 -27629973.05 -27629972.85 0.0089 0.0057
 Saturn -80360-07-12 08:37 J -27629874.33 -27629874.14 -27629873.93 0.0270 0.0148
 Neptune -80359-04-06 13:25 J -27629606.14 -27629605.94 -27629605.71 0.0089 0.0043
 Saturn -80359-07-25 05:44 J -27629496.38 -27629496.26 -27629496.14 0.0273 0.0234
 Neptune -80358-04-09 03:20 J -27629238.61 -27629238.36 -27629238.10 0.0089 0.0018
 Neptune -80357-04-10 10:04 J -27628871.32 -27628871.08 -27628870.84 0.0089 0.0003
 Neptune -80356-04-12 18:56 J -27628503.95 -27628503.71 -27628503.45 0.0089 0.0022
 Uranus -80356-12-19 09:35 J -27628253.21 -27628253.10 -27628252.95 0.0131 0.0112
 Neptune -80355-04-15 06:28 J -27628136.44 -27628136.23 -27628136.00 0.0089 0.0037

Jupiter -80355-09-14 20:52 J -27627983.73 -27627983.63 -27627983.51 0.0492 0.0431
 Uranus -80355-12-23 12:56 J -27627884.11 -27627883.96 -27627883.78 0.0131 0.0103
 Neptune -80354-04-17 10:32 J -27627769.22 -27627769.06 -27627768.85 0.0089 0.0061
 Uranus -80354-12-27 18:28 J -27627514.92 -27627514.73 -27627514.52 0.0131 0.0075
 Neptune -80353-04-19 01:40 J -27627401.53 -27627401.43 -27627401.27 0.0089 0.0076
 Uranus -80353-12-30 21:35 J -27627145.83 -27627145.60 -27627145.36 0.0131 0.0057
 Uranus -80351-01-04 02:08 J -27626776.63 -27626776.41 -27626776.16 0.0131 0.0039
 Uranus -80350-01-08 05:01 J -27626407.55 -27626407.29 -27626407.03 0.0131 0.0009
 Saturn -80350-11-30 07:11 J -27626081.34 -27626081.20 -27626081.06 0.0295 0.0247
 Uranus -80349-01-12 09:20 J -27626038.35 -27626038.11 -27626037.86 0.0131 0.0003
 Saturn -80349-12-14 01:54 J -27625701.64 -27625701.42 -27625701.19 0.0295 0.0137
 Uranus -80348-01-15 11:01 J -27625669.28 -27625669.04 -27625668.78 0.0132 0.0035
 Saturn -80348-12-28 14:52 J -27625322.12 -27625321.88 -27625321.63 0.0294 0.0023
 Uranus -80347-01-19 14:52 J -27625300.11 -27625299.88 -27625299.65 0.0132 0.0043
 Saturn -80346-01-11 21:35 J -27624942.82 -27624942.60 -27624942.38 0.0292 0.0091
 Uranus -80346-01-23 15:49 J -27624931.04 -27624930.84 -27624930.61 0.0132 0.0074
 Saturn -80345-01-25 18:56 J -27624563.88 -27624563.71 -27624563.53 0.0289 0.0192
 Uranus -80345-01-27 19:11 J -27624561.86 -27624561.70 -27624561.51 0.0132 0.0090
 Uranus -80344-01-30 20:37 J -27624192.78 -27624192.64 -27624192.50 0.0133 0.0111
 Saturn -80344-02-07 03:35 J -27624185.40 -27624185.35 -27624185.28 0.0286 0.0276
 Jupiter -80343-09-19 19:40 J -27623595.91 -27623595.68 -27623595.45 0.0493 0.0187
 Saturn -80335-05-22 08:08 J -27620794.23 -27620794.16 -27620794.05 0.0265 0.0247
 Saturn -80334-06-02 14:37 J -27620418.06 -27620417.89 -27620417.70 0.0265 0.0181
 Saturn -80333-06-13 08:37 J -27620041.36 -27620041.14 -27620040.91 0.0266 0.0092
 Saturn -80332-06-25 09:49 J -27619664.33 -27619664.09 -27619663.85 0.0267 0.0008
 Saturn -80331-07-07 11:30 J -27619287.24 -27619287.02 -27619286.77 0.0269 0.0108
 Jupiter -80331-09-24 01:54 J -27619208.65 -27619208.42 -27619208.18 0.0494 0.0067
 Saturn -80330-07-19 19:11 J -27618909.86 -27618909.70 -27618909.51 0.0272 0.0199
 Jupiter -80325-03-17 17:01 J -27617206.96 -27617206.79 -27617206.62 0.0535 0.0326
 Saturn -80321-11-22 21:35 J -27615495.60 -27615495.60 -27615495.59 0.0295 0.0295

Saturn	-80320-12-07 23:59 J	-27615115.68	-27615115.50	-27615115.31	0.0295	0.0188
Jupiter	-80319-09-29 01:11 J	-27614820.64	-27614820.45	-27614820.25	0.0495	0.0279
Saturn	-80319-12-22 18:28 J	-27614735.97	-27614735.73	-27614735.49	0.0294	0.0073
Saturn	-80317-01-06 00:56 J	-27614356.71	-27614356.46	-27614356.20	0.0292	0.0040
Saturn	-80316-01-18 19:54 J	-27613977.87	-27613977.67	-27613977.44	0.0289	0.0144
Saturn	-80315-02-01 06:56 J	-27613599.34	-27613599.21	-27613599.07	0.0286	0.0237
Jupiter	-80313-03-22 19:40 J	-27612818.91	-27612818.68	-27612818.45	0.0534	0.0080
Uranus	-80313-06-12 08:37 J	-27612737.25	-27612737.14	-27612737.04	0.0147	0.0134
Uranus	-80312-06-17 17:16 J	-27612366.94	-27612366.78	-27612366.61	0.0147	0.0109
Uranus	-80311-06-22 19:11 J	-27611996.92	-27611996.70	-27611996.46	0.0147	0.0068
Uranus	-80310-06-28 02:23 J	-27611626.62	-27611626.40	-27611626.16	0.0147	0.0053
Uranus	-80309-07-02 08:52 J	-27611256.39	-27611256.13	-27611255.86	0.0147	0.0012
Uranus	-80308-07-07 13:40 J	-27610886.18	-27610885.93	-27610885.68	0.0147	0.0015
Uranus	-80307-07-12 23:44 J	-27610515.76	-27610515.51	-27610515.25	0.0147	0.0040
Jupiter	-80307-10-03 11:16 J	-27610433.11	-27610433.03	-27610432.93	0.0496	0.0459
Uranus	-80306-07-18 01:40 J	-27610145.63	-27610145.43	-27610145.22	0.0147	0.0084
Saturn	-80305-05-27 23:44 J	-27609830.64	-27609830.51	-27609830.36	0.0265	0.0213
Uranus	-80305-07-22 14:23 J	-27609775.08	-27609774.90	-27609774.70	0.0146	0.0100
Saturn	-80304-06-08 10:18 J	-27609454.29	-27609454.07	-27609453.85	0.0266	0.0130
Uranus	-80304-07-27 14:23 J	-27609404.97	-27609404.90	-27609404.80	0.0146	0.0137
Saturn	-80303-06-19 23:59 J	-27609077.75	-27609077.50	-27609077.25	0.0267	0.0033
Saturn	-80302-07-02 02:08 J	-27608700.64	-27608700.41	-27608700.18	0.0268	0.0066
Jupiter	-80301-03-27 10:18 J	-27608431.28	-27608431.07	-27608430.85	0.0532	0.0150
Saturn	-80301-07-13 14:52 J	-27608323.06	-27608322.88	-27608322.67	0.0271	0.0161
Saturn	-80300-07-26 08:08 J	-27607945.26	-27607945.16	-27607945.04	0.0273	0.0245
Mars	-80292-06-11 11:01 J	-27605068.22	-27605068.04	-27605067.86	0.1590	0.0159
Saturn	-80291-12-01 10:18 J	-27604530.21	-27604530.07	-27604529.91	0.0296	0.0236
Saturn	-80290-12-16 08:23 J	-27604150.36	-27604150.15	-27604149.92	0.0295	0.0121
Jupiter	-80289-04-01 06:56 J	-27604043.33	-27604043.21	-27604043.07	0.0531	0.0425
Saturn	-80289-12-30 01:25 J	-27603770.68	-27603770.44	-27603770.21	0.0294	0.0007

Saturn -80287-01-13 08:52 J -27603391.35 -27603391.13 -27603390.91 0.0291 0.0104
 Saturn -80286-01-27 03:20 J -27603012.53 -27603012.36 -27603012.19 0.0289 0.0204
 Mars -80284-12-20 23:16 J -27601953.72 -27601953.53 -27601953.34 0.1956 0.1138
 Pluto -80282-02-05 09:06 J -27601542.37 -27601542.12 -27601541.87 0.0078 0.0026
 Neptune -80279-10-05 03:49 J -27600204.46 -27600204.34 -27600204.15 0.0088 0.0072
 Neptune -80278-10-07 11:16 J -27599837.23 -27599837.03 -27599836.79 0.0088 0.0049
 Neptune -80277-10-09 08:52 J -27599469.37 -27599469.13 -27599468.86 0.0088 0.0031
 Saturn -80276-05-23 05:30 J -27599243.37 -27599243.27 -27599243.17 0.0265 0.0241
 Neptune -80276-10-11 17:30 J -27599102.03 -27599101.77 -27599101.51 0.0088 0.0006
 Saturn -80275-06-03 18:13 J -27598866.92 -27598866.74 -27598866.56 0.0265 0.0168
 Neptune -80275-10-14 11:44 J -27598734.27 -27598734.01 -27598733.73 0.0088 0.0011
 Saturn -80274-06-15 14:08 J -27598490.14 -27598489.91 -27598489.68 0.0266 0.0076
 Neptune -80274-10-16 23:59 J -27598366.72 -27598366.50 -27598366.25 0.0088 0.0036
 Saturn -80273-06-26 09:49 J -27598113.34 -27598113.09 -27598112.83 0.0267 0.0024
 Neptune -80273-10-18 14:37 J -27597999.11 -27597998.89 -27597998.66 0.0088 0.0051
 Uranus -80273-12-15 11:16 J -27597941.05 -27597941.03 -27597940.98 0.0132 0.0130
 Saturn -80272-07-08 08:52 J -27597736.35 -27597736.13 -27597735.90 0.0269 0.0121
 Jupiter -80272-09-14 10:32 J -27597668.17 -27597668.06 -27597667.96 0.0492 0.0442
 Neptune -80272-10-21 06:56 J -27597631.31 -27597631.21 -27597631.06 0.0088 0.0077
 Uranus -80272-12-19 19:11 J -27597571.76 -27597571.70 -27597571.60 0.0131 0.0124
 Saturn -80271-07-20 21:35 J -27597358.75 -27597358.60 -27597358.44 0.0272 0.0210
 Uranus -80271-12-23 22:04 J -27597202.77 -27597202.58 -27597202.39 0.0131 0.0091
 Uranus -80270-12-28 04:47 J -27596833.49 -27596833.30 -27596833.09 0.0131 0.0079
 Uranus -80269-12-31 06:28 J -27596464.47 -27596464.23 -27596463.99 0.0131 0.0054
 Uranus -80267-01-04 12:28 J -27596095.22 -27596094.98 -27596094.74 0.0131 0.0031
 Uranus -80266-01-08 13:11 J -27595726.21 -27595725.95 -27595725.69 0.0131 0.0015
 Uranus -80265-01-12 18:28 J -27595356.97 -27595356.73 -27595356.48 0.0132 0.0017
 Uranus -80264-01-15 18:56 J -27594987.96 -27594987.71 -27594987.45 0.0132 0.0025
 Uranus -80263-01-19 23:44 J -27594618.72 -27594618.51 -27594618.28 0.0132 0.0059
 Uranus -80262-01-23 23:59 J -27594249.71 -27594249.50 -27594249.27 0.0132 0.0069

Saturn	-80262-11-25 07:40 J	-27593944.23	-27593944.18	-27593944.11	0.0295	0.0284
Uranus	-80261-01-28 05:01 J	-27593880.43	-27593880.29	-27593880.11	0.0132	0.0099
Saturn	-80261-12-09 07:11 J	-27593564.39	-27593564.20	-27593563.98	0.0295	0.0174
Uranus	-80260-01-31 05:16 J	-27593511.39	-27593511.28	-27593511.14	0.0133	0.0116
Jupiter	-80260-09-18 17:30 J	-27593280.99	-27593280.77	-27593280.55	0.0492	0.0204
Saturn	-80260-12-23 21:49 J	-27593184.83	-27593184.59	-27593184.33	0.0294	0.0059
Saturn	-80258-01-07 03:06 J	-27592805.61	-27592805.37	-27592805.12	0.0292	0.0052
Saturn	-80257-01-21 01:11 J	-27592426.64	-27592426.45	-27592426.24	0.0289	0.0158
Saturn	-80256-02-02 15:35 J	-27592047.95	-27592047.85	-27592047.73	0.0286	0.0251
Jupiter	-80248-09-23 15:20 J	-27588893.09	-27588892.86	-27588892.62	0.0494	0.0052
Saturn	-80246-05-29 22:32 J	-27588279.72	-27588279.56	-27588279.40	0.0265	0.0202
Mars	-80245-06-05 17:44 J	-27587906.85	-27587906.76	-27587906.67	0.1598	0.1379
Saturn	-80245-06-09 05:44 J	-27587903.48	-27587903.26	-27587903.03	0.0265	0.0115
Saturn	-80244-06-21 00:56 J	-27587526.70	-27587526.46	-27587526.22	0.0267	0.0017
Saturn	-80243-07-03 05:44 J	-27587149.49	-27587149.26	-27587149.03	0.0268	0.0082
Jupiter	-80242-03-18 05:16 J	-27586891.46	-27586891.28	-27586891.10	0.0535	0.0340
Saturn	-80242-07-15 13:40 J	-27586772.11	-27586771.93	-27586771.72	0.0271	0.0172
Saturn	-80241-07-27 02:37 J	-27586394.48	-27586394.39	-27586394.28	0.0273	0.0252
Jupiter	-80236-09-28 03:35 J	-27584505.56	-27584505.35	-27584505.14	0.0495	0.0256
Saturn	-80232-12-02 14:52 J	-27582979.03	-27582978.88	-27582978.73	0.0296	0.0228
Saturn	-80231-12-17 15:35 J	-27582599.07	-27582598.85	-27582598.63	0.0295	0.0111
Jupiter	-80230-03-22 15:20 J	-27582504.08	-27582503.86	-27582503.65	0.0534	0.0119
Saturn	-80229-01-01 08:37 J	-27582219.38	-27582219.14	-27582218.90	0.0294	0.0008
Uranus	-80229-06-12 19:54 J	-27582055.78	-27582055.67	-27582055.54	0.0147	0.0130
Saturn	-80228-01-14 12:28 J	-27581840.20	-27581839.98	-27581839.75	0.0291	0.0117
Uranus	-80228-06-18 05:30 J	-27581685.45	-27581685.27	-27581685.09	0.0147	0.0099
Saturn	-80227-01-28 02:23 J	-27581461.56	-27581461.40	-27581461.23	0.0289	0.0215
Uranus	-80227-06-23 05:44 J	-27581315.47	-27581315.26	-27581315.03	0.0147	0.0080
Uranus	-80226-06-28 14:23 J	-27580945.14	-27580944.90	-27580944.66	0.0147	0.0036
Uranus	-80225-07-02 19:11 J	-27580574.96	-27580574.70	-27580574.44	0.0147	0.0017

Uranus -80224-07-08 00:56 J -27580204.70 -27580204.46 -27580204.21 0.0147 0.0019
 Jupiter -80224-10-02 23:44 J -27580117.60 -27580117.51 -27580117.41 0.0496 0.0448
 Uranus -80223-07-13 10:04 J -27579834.32 -27579834.08 -27579833.83 0.0147 0.0055
 Uranus -80222-07-18 12:56 J -27579464.17 -27579463.96 -27579463.74 0.0147 0.0074
 Uranus -80221-07-23 01:25 J -27579093.59 -27579093.44 -27579093.28 0.0146 0.0118
 Uranus -80220-07-28 01:54 J -27578723.50 -27578723.42 -27578723.32 0.0146 0.0137
 Jupiter -80218-03-27 17:16 J -27578115.99 -27578115.78 -27578115.55 0.0533 0.0112
 Saturn -80217-05-24 05:16 J -27577692.38 -27577692.28 -27577692.16 0.0264 0.0234
 Saturn -80216-06-04 21:20 J -27577315.80 -27577315.61 -27577315.41 0.0265 0.0156
 Saturn -80215-06-16 11:44 J -27576939.25 -27576939.01 -27576938.76 0.0266 0.0060
 Saturn -80214-06-28 03:49 J -27576562.59 -27576562.34 -27576562.09 0.0267 0.0040
 Mars -80213-06-13 06:42 J -27576211.38 -27576211.22 -27576211.06 0.1588 0.0802
 Saturn -80213-07-09 07:40 J -27576185.38 -27576185.18 -27576184.96 0.0269 0.0134
 Saturn -80212-07-22 00:56 J -27575807.59 -27575807.46 -27575807.30 0.0272 0.0218
 Jupiter -80206-04-01 07:25 J -27573728.33 -27573728.19 -27573728.04 0.0532 0.0408
 Saturn -80203-11-26 08:23 J -27572393.24 -27572393.15 -27572393.06 0.0296 0.0276
 Saturn -80202-12-11 05:59 J -27572013.46 -27572013.25 -27572013.04 0.0295 0.0165
 Saturn -80201-12-24 21:35 J -27571633.84 -27571633.60 -27571633.35 0.0294 0.0047
 Saturn -80199-01-08 06:42 J -27571254.45 -27571254.22 -27571253.99 0.0292 0.0068
 Saturn -80198-01-22 08:23 J -27570875.33 -27570875.15 -27570874.96 0.0289 0.0171
 Saturn -80197-02-04 22:04 J -27570496.66 -27570496.58 -27570496.47 0.0286 0.0262
 Neptune -80196-04-03 17:16 J -27570072.92 -27570072.78 -27570072.58 0.0089 0.0064
 Neptune -80195-04-06 06:56 J -27569705.41 -27569705.21 -27569704.99 0.0089 0.0051
 Neptune -80194-04-08 14:08 J -27569338.15 -27569337.91 -27569337.68 0.0089 0.0024
 Neptune -80193-04-09 22:04 J -27568970.83 -27568970.58 -27568970.32 0.0089 0.0013
 Neptune -80192-04-12 10:04 J -27568603.31 -27568603.08 -27568602.83 0.0089 0.0015
 Neptune -80191-04-14 14:23 J -27568236.14 -27568235.90 -27568235.65 0.0089 0.0026
 Neptune -80190-04-17 05:59 J -27567868.44 -27567868.25 -27567868.05 0.0089 0.0054
 Neptune -80189-04-18 08:08 J -27567501.31 -27567501.16 -27567500.98 0.0089 0.0066
 Jupiter -80189-09-13 10:04 J -27567353.16 -27567353.08 -27567352.99 0.0492 0.0457

Saturn	-80188-05-19 12:28 J	-27567104.99	-27567104.98	-27567104.93	0.0265	0.0263
Uranus	-80188-12-20 05:30 J	-27566890.39	-27566890.27	-27566890.12	0.0131	0.0110
Saturn	-80187-05-30 16:32 J	-27566728.98	-27566728.81	-27566728.64	0.0265	0.0193
Uranus	-80187-12-24 06:56 J	-27566521.37	-27566521.21	-27566521.04	0.0131	0.0101
Saturn	-80186-06-11 05:16 J	-27566352.49	-27566352.28	-27566352.05	0.0265	0.0102
Uranus	-80186-12-28 15:06 J	-27566152.07	-27566151.87	-27566151.66	0.0131	0.0071
Saturn	-80185-06-22 03:49 J	-27565975.58	-27565975.34	-27565975.10	0.0266	0.0003
Uranus	-80185-12-31 15:35 J	-27565783.08	-27565782.85	-27565782.60	0.0131	0.0054
Saturn	-80184-07-04 04:18 J	-27565598.56	-27565598.32	-27565598.09	0.0268	0.0095
Uranus	-80183-01-04 22:47 J	-27565413.78	-27565413.55	-27565413.30	0.0131	0.0033
Saturn	-80183-07-16 06:56 J	-27565221.39	-27565221.21	-27565221.00	0.0270	0.0180
Uranus	-80182-01-08 23:01 J	-27565044.80	-27565044.54	-27565044.28	0.0131	0.0004
Saturn	-80182-07-28 22:32 J	-27564843.62	-27564843.56	-27564843.47	0.0273	0.0260
Uranus	-80181-01-13 05:44 J	-27564675.51	-27564675.26	-27564675.02	0.0132	0.0008
Uranus	-80180-01-16 04:47 J	-27564306.55	-27564306.30	-27564306.05	0.0132	0.0041
Uranus	-80179-01-20 10:32 J	-27563937.28	-27563937.06	-27563936.82	0.0132	0.0050
Uranus	-80178-01-24 09:06 J	-27563568.30	-27563568.12	-27563567.90	0.0132	0.0083
Uranus	-80177-01-28 15:20 J	-27563199.01	-27563198.86	-27563198.68	0.0132	0.0097
Jupiter	-80177-09-18 10:32 J	-27562965.27	-27562965.06	-27562964.84	0.0493	0.0205
Uranus	-80176-01-31 13:54 J	-27562830.00	-27562829.92	-27562829.79	0.0133	0.0121
Saturn	-80173-12-03 19:40 J	-27561427.83	-27561427.68	-27561427.52	0.0296	0.0222
Saturn	-80172-12-18 19:11 J	-27561047.92	-27561047.70	-27561047.47	0.0295	0.0102
Saturn	-80170-01-02 08:23 J	-27560668.40	-27560668.15	-27560667.90	0.0294	0.0018
Saturn	-80169-01-16 08:37 J	-27560289.36	-27560289.14	-27560288.91	0.0292	0.0128
Saturn	-80168-01-28 23:30 J	-27559910.67	-27559910.52	-27559910.37	0.0289	0.0226
Mars	-80166-06-08 19:54 J	-27559049.83	-27559049.67	-27559049.51	0.1596	0.0921
Jupiter	-80165-09-22 21:49 J	-27558577.84	-27558577.59	-27558577.34	0.0494	0.0047
Jupiter	-80159-03-17 00:42 J	-27556576.62	-27556576.47	-27556576.30	0.0535	0.0377
Saturn	-80158-05-26 08:08 J	-27556141.27	-27556141.16	-27556141.04	0.0264	0.0227
Saturn	-80157-06-05 19:11 J	-27555764.90	-27555764.70	-27555764.48	0.0264	0.0146

Saturn	-80156-06-17 04:47 J	-27555388.55	-27555388.30	-27555388.05	0.0265	0.0044
Saturn	-80155-06-29 00:42 J	-27555011.70	-27555011.47	-27555011.22	0.0267	0.0054
Saturn	-80154-07-11 09:20 J	-27554634.31	-27554634.11	-27554633.90	0.0269	0.0144
Saturn	-80153-07-23 00:13 J	-27554256.63	-27554256.49	-27554256.35	0.0271	0.0225
Jupiter	-80153-09-27 15:20 J	-27554190.05	-27554189.86	-27554189.65	0.0494	0.0239
Jupiter	-80147-03-22 05:01 J	-27552188.51	-27552188.29	-27552188.08	0.0535	0.0148
Uranus	-80145-06-13 06:56 J	-27551374.31	-27551374.21	-27551374.08	0.0147	0.0131
Uranus	-80144-06-18 17:30 J	-27551003.94	-27551003.77	-27551003.59	0.0147	0.0104
Saturn	-80144-11-27 03:35 J	-27550842.45	-27550842.35	-27550842.26	0.0296	0.0272
Uranus	-80143-06-23 17:30 J	-27550633.99	-27550633.77	-27550633.52	0.0147	0.0063
Saturn	-80143-12-12 03:35 J	-27550462.55	-27550462.35	-27550462.14	0.0296	0.0158
Uranus	-80142-06-29 02:52 J	-27550263.61	-27550263.38	-27550263.14	0.0147	0.0047
Saturn	-80142-12-26 23:16 J	-27550082.77	-27550082.53	-27550082.30	0.0294	0.0037
Uranus	-80141-07-03 06:56 J	-27549893.48	-27549893.21	-27549892.95	0.0147	0.0005
Jupiter	-80141-10-02 09:06 J	-27549802.24	-27549802.12	-27549802.00	0.0496	0.0430
Saturn	-80140-01-09 11:01 J	-27549703.26	-27549703.04	-27549702.81	0.0292	0.0079
Uranus	-80140-07-08 13:40 J	-27549523.17	-27549522.93	-27549522.68	0.0147	0.0023
Saturn	-80139-01-23 11:16 J	-27549324.21	-27549324.03	-27549323.84	0.0290	0.0182
Uranus	-80139-07-13 21:06 J	-27549152.86	-27549152.62	-27549152.36	0.0147	0.0050
Saturn	-80138-02-05 20:08 J	-27548945.71	-27548945.66	-27548945.57	0.0286	0.0274
Uranus	-80138-07-19 00:42 J	-27548782.64	-27548782.47	-27548782.26	0.0147	0.0094
Uranus	-80137-07-23 11:59 J	-27548412.16	-27548412.00	-27548411.81	0.0146	0.0110
Jupiter	-80135-03-26 21:35 J	-27547800.82	-27547800.60	-27547800.37	0.0533	0.0101
Mars	-80134-06-16 09:49 J	-27547354.24	-27547354.09	-27547353.94	0.1586	0.1048
Saturn	-80129-05-20 05:44 J	-27545554.30	-27545554.26	-27545554.19	0.0264	0.0258
Saturn	-80128-05-31 13:54 J	-27545178.09	-27545177.92	-27545177.75	0.0264	0.0184
Saturn	-80127-06-12 07:11 J	-27544801.42	-27544801.20	-27544800.97	0.0265	0.0088
Saturn	-80126-06-24 01:11 J	-27544424.70	-27544424.45	-27544424.20	0.0266	0.0013
Saturn	-80125-07-04 20:23 J	-27544047.87	-27544047.65	-27544047.40	0.0268	0.0106
Saturn	-80124-07-17 02:52 J	-27543670.56	-27543670.38	-27543670.21	0.0270	0.0190

Jupiter -80123-03-31 23:30 J -27543412.65 -27543412.52 -27543412.38 0.0532 0.0408
 Saturn -80123-07-29 23:44 J -27543292.56 -27543292.51 -27543292.46 0.0273 0.0266
 Pluto -80123-08-01 14:52 J -27543290.11 -27543289.88 -27543289.63 0.0066 0.0021
 Neptune -80115-10-04 04:32 J -27540304.39 -27540304.31 -27540304.19 0.0088 0.0082
 Neptune -80114-10-07 01:40 J -27539936.62 -27539936.43 -27539936.19 0.0088 0.0053
 Saturn -80114-12-05 18:42 J -27539876.89 -27539876.72 -27539876.55 0.0296 0.0215
 Neptune -80113-10-08 11:59 J -27539569.23 -27539569.00 -27539568.77 0.0088 0.0041
 Saturn -80113-12-19 14:52 J -27539497.12 -27539496.88 -27539496.64 0.0295 0.0096
 Neptune -80112-10-11 05:16 J -27539201.55 -27539201.28 -27539201.00 0.0088 0.0012
 Saturn -80111-01-03 02:08 J -27539117.66 -27539117.41 -27539117.16 0.0294 0.0025
 Neptune -80111-10-13 18:42 J -27538833.97 -27538833.72 -27538833.46 0.0088 0.0002
 Saturn -80110-01-17 05:01 J -27538738.50 -27538738.29 -27538738.07 0.0292 0.0138
 Neptune -80110-10-16 06:56 J -27538466.46 -27538466.21 -27538465.94 0.0088 0.0029
 Saturn -80109-01-31 00:42 J -27538359.59 -27538359.47 -27538359.33 0.0289 0.0240
 Neptune -80109-10-18 00:42 J -27538098.68 -27538098.47 -27538098.23 0.0088 0.0041
 Neptune -80108-10-20 09:20 J -27537731.25 -27537731.11 -27537730.92 0.0088 0.0069
 Neptune -80107-10-23 06:13 J -27537363.31 -27537363.24 -27537363.11 0.0088 0.0082
 Jupiter -80106-09-14 06:28 J -27537037.30 -27537037.23 -27537037.13 0.0492 0.0456
 Uranus -80105-12-16 05:44 J -27536578.29 -27536578.26 -27536578.19 0.0131 0.0129
 Uranus -80104-12-20 16:04 J -27536208.90 -27536208.83 -27536208.72 0.0131 0.0122
 Uranus -80103-12-24 16:32 J -27535840.00 -27535839.81 -27535839.61 0.0131 0.0087
 Uranus -80102-12-29 01:40 J -27535470.62 -27535470.43 -27535470.22 0.0131 0.0076
 Uranus -80100-01-01 00:42 J -27535101.71 -27535101.47 -27535101.22 0.0131 0.0048
 Uranus -80099-01-05 08:52 J -27534732.37 -27534732.13 -27534731.88 0.0131 0.0026
 Saturn -80099-05-27 06:42 J -27534590.35 -27534590.22 -27534590.08 0.0264 0.0219
 Uranus -80098-01-09 07:25 J -27534363.45 -27534363.19 -27534362.93 0.0131 0.0009
 Saturn -80098-06-07 12:13 J -27534214.19 -27534213.99 -27534213.76 0.0264 0.0133
 Uranus -80097-01-13 14:37 J -27533994.13 -27533993.89 -27533993.64 0.0132 0.0022
 Saturn -80097-06-18 01:54 J -27533837.66 -27533837.42 -27533837.18 0.0265 0.0032
 Uranus -80096-01-16 12:28 J -27533625.22 -27533624.98 -27533624.71 0.0132 0.0032

Saturn -80096-06-30 02:52 J -27533460.61 -27533460.38 -27533460.14 0.0267 0.0065
 Uranus -80095-01-20 20:08 J -27533255.87 -27533255.66 -27533255.45 0.0132 0.0066
 Saturn -80095-07-12 09:06 J -27533083.33 -27533083.12 -27533082.92 0.0269 0.0154
 Uranus -80094-01-24 17:44 J -27532886.96 -27532886.76 -27532886.53 0.0132 0.0076
 Saturn -80094-07-24 17:16 J -27532705.90 -27532705.78 -27532705.63 0.0271 0.0232
 Jupiter -80094-09-18 15:06 J -27532650.09 -27532649.87 -27532649.64 0.0492 0.0201
 Uranus -80093-01-29 00:56 J -27532517.58 -27532517.46 -27532517.30 0.0132 0.0107
 Uranus -80092-01-31 23:01 J -27532148.63 -27532148.54 -27532148.44 0.0133 0.0123
 Mars -80087-06-11 02:37 J -27530192.59 -27530192.39 -27530192.19 0.1594 0.0037
 Saturn -80085-11-28 03:06 J -27529291.47 -27529291.37 -27529291.26 0.0296 0.0265
 Saturn -80084-12-13 06:28 J -27528911.43 -27528911.23 -27528911.02 0.0296 0.0151
 Saturn -80083-12-28 02:52 J -27528531.61 -27528531.38 -27528531.14 0.0295 0.0030
 Jupiter -80082-09-23 09:20 J -27528262.34 -27528262.11 -27528261.88 0.0493 0.0037
 Saturn -80081-01-11 12:28 J -27528152.21 -27528151.98 -27528151.75 0.0293 0.0089
 Saturn -80080-01-24 07:40 J -27527773.35 -27527773.18 -27527772.98 0.0290 0.0195
 Mars -80079-12-15 11:16 J -27527083.18 -27527083.03 -27527082.87 0.1946 0.1123
 Jupiter -80076-03-16 17:44 J -27526260.91 -27526260.76 -27526260.60 0.0536 0.0391
 Saturn -80070-05-22 03:20 J -27524003.42 -27524003.36 -27524003.28 0.0264 0.0252
 Jupiter -80070-09-28 01:40 J -27523874.65 -27523874.43 -27523874.20 0.0494 0.0219
 Saturn -80069-06-01 16:18 J -27523626.99 -27523626.82 -27523626.63 0.0264 0.0173
 Saturn -80068-06-13 06:28 J -27523250.47 -27523250.23 -27523249.99 0.0265 0.0077
 Saturn -80067-06-24 18:13 J -27522873.99 -27522873.74 -27522873.48 0.0266 0.0025
 Saturn -80066-07-06 16:04 J -27522497.05 -27522496.83 -27522496.60 0.0268 0.0116
 Saturn -80065-07-18 03:49 J -27522119.50 -27522119.34 -27522119.18 0.0270 0.0197
 Jupiter -80064-03-21 10:18 J -27521873.28 -27521873.07 -27521872.84 0.0535 0.0168
 Saturn -80064-07-30 23:59 J -27521741.51 -27521741.50 -27521741.48 0.0273 0.0272
 Uranus -80061-06-13 17:16 J -27520692.90 -27520692.78 -27520692.64 0.0147 0.0126
 Uranus -80060-06-19 04:18 J -27520322.51 -27520322.32 -27520322.13 0.0147 0.0095
 Uranus -80059-06-24 03:06 J -27519952.59 -27519952.37 -27519952.14 0.0147 0.0074
 Uranus -80058-06-29 13:25 J -27519582.18 -27519581.94 -27519581.69 0.0147 0.0029

Jupiter -80058-10-02 15:49 J -27519486.96 -27519486.84 -27519486.72 0.0496 0.0424
 Uranus -80057-07-03 16:18 J -27519212.09 -27519211.82 -27519211.56 0.0147 0.0010
 Uranus -80056-07-09 00:28 J -27518841.72 -27518841.48 -27518841.23 0.0147 0.0028
 Uranus -80055-07-14 06:56 J -27518471.43 -27518471.21 -27518470.96 0.0147 0.0064
 Saturn -80055-12-06 11:01 J -27518326.21 -27518326.04 -27518325.85 0.0296 0.0210
 Uranus -80054-07-19 12:28 J -27518101.18 -27518100.98 -27518100.77 0.0147 0.0084
 Saturn -80054-12-21 07:25 J -27517946.42 -27517946.19 -27517945.95 0.0296 0.0091
 Uranus -80053-07-23 22:47 J -27517730.66 -27517730.55 -27517730.41 0.0147 0.0128
 Saturn -80052-01-03 21:49 J -27517566.83 -27517566.59 -27517566.35 0.0294 0.0033
 Jupiter -80052-03-26 07:54 J -27517485.38 -27517485.17 -27517484.95 0.0533 0.0081
 Saturn -80051-01-18 05:16 J -27517187.48 -27517187.28 -27517187.08 0.0292 0.0149
 Saturn -80050-02-01 02:37 J -27516808.51 -27516808.39 -27516808.28 0.0289 0.0250
 Jupiter -80040-03-31 00:56 J -27513097.62 -27513097.46 -27513097.29 0.0532 0.0377
 Saturn -80040-05-28 00:13 J -27513039.64 -27513039.49 -27513039.33 0.0264 0.0208
 Mars -80040-06-05 14:37 J -27513030.91 -27513030.89 -27513030.87 0.1603 0.1589
 Saturn -80039-06-08 08:23 J -27512663.36 -27512663.15 -27512662.93 0.0264 0.0121
 Saturn -80038-06-20 03:49 J -27512286.58 -27512286.34 -27512286.10 0.0265 0.0020
 Saturn -80037-07-01 03:06 J -27511909.61 -27511909.37 -27511909.13 0.0267 0.0076
 Pluto -80036-02-05 03:49 J -27511690.44 -27511690.34 -27511690.20 0.0079 0.0069
 Saturn -80036-07-13 03:06 J -27511532.56 -27511532.37 -27511532.15 0.0269 0.0161
 Saturn -80035-07-25 11:59 J -27511155.11 -27511155.00 -27511154.87 0.0271 0.0238
 Neptune -80032-04-03 09:20 J -27510172.21 -27510172.11 -27510171.96 0.0089 0.0077
 Neptune -80031-04-05 17:30 J -27509804.95 -27509804.77 -27509804.57 0.0089 0.0054
 Neptune -80030-04-08 00:56 J -27509437.67 -27509437.46 -27509437.21 0.0089 0.0039
 Neptune -80029-04-09 13:54 J -27509070.15 -27509069.92 -27509069.67 0.0089 0.0016
 Neptune -80028-04-11 17:30 J -27508703.02 -27508702.77 -27508702.51 0.0089 0.0001
 Neptune -80027-04-14 08:52 J -27508335.35 -27508335.13 -27508334.87 0.0089 0.0025
 Neptune -80026-04-16 11:16 J -27507968.23 -27507968.03 -27507967.79 0.0089 0.0040
 Saturn -80026-11-30 05:59 J -27507740.36 -27507740.25 -27507740.13 0.0296 0.0259
 Neptune -80025-04-18 02:23 J -27507600.57 -27507600.40 -27507600.21 0.0089 0.0063

Saturn -80025-12-14 08:37 J -27507360.34 -27507360.14 -27507359.92 0.0296 0.0143
 Neptune -80024-04-20 06:42 J -27507233.32 -27507233.22 -27507233.08 0.0089 0.0078
 Saturn -80024-12-29 02:08 J -27506980.66 -27506980.41 -27506980.16 0.0295 0.0020
 Jupiter -80023-09-13 09:35 J -27506722.18 -27506722.10 -27506722.00 0.0491 0.0457
 Saturn -80022-01-12 07:54 J -27506601.40 -27506601.17 -27506600.93 0.0293 0.0099
 Saturn -80021-01-26 02:37 J -27506222.55 -27506222.39 -27506222.20 0.0290 0.0206
 Uranus -80020-12-21 02:37 J -27505527.53 -27505527.39 -27505527.24 0.0131 0.0107
 Uranus -80019-12-25 01:40 J -27505158.59 -27505158.43 -27505158.25 0.0131 0.0098
 Uranus -80018-12-29 11:30 J -27504789.22 -27504789.02 -27504788.79 0.0131 0.0066
 Uranus -80016-01-01 09:49 J -27504420.31 -27504420.09 -27504419.83 0.0131 0.0050
 Uranus -80015-01-05 19:11 J -27504050.94 -27504050.70 -27504050.45 0.0131 0.0026
 Uranus -80014-01-09 16:47 J -27503682.05 -27503681.80 -27503681.54 0.0131 0.0003
 Uranus -80013-01-14 01:11 J -27503312.69 -27503312.45 -27503312.20 0.0131 0.0014
 Uranus -80012-01-16 21:49 J -27502943.82 -27502943.59 -27502943.34 0.0132 0.0048
 Uranus -80011-01-21 05:44 J -27502574.47 -27502574.26 -27502574.02 0.0132 0.0057
 Saturn -80011-05-23 06:28 J -27502452.32 -27502452.23 -27502452.14 0.0264 0.0242
 Jupiter -80011-09-18 02:52 J -27502334.59 -27502334.38 -27502334.17 0.0492 0.0202
 Uranus -80010-01-25 02:37 J -27502205.57 -27502205.39 -27502205.20 0.0132 0.0091
 Saturn -80010-06-03 17:44 J -27502075.95 -27502075.76 -27502075.56 0.0264 0.0160
 Uranus -80009-01-29 10:32 J -27501836.20 -27501836.06 -27501835.90 0.0132 0.0104
 Saturn -80009-06-14 01:40 J -27501699.68 -27501699.43 -27501699.18 0.0265 0.0062
 Uranus -80008-02-01 07:11 J -27501467.23 -27501467.20 -27501467.13 0.0132 0.0130
 Mars -80008-06-13 04:04 J -27501335.51 -27501335.33 -27501335.14 0.1592 0.0292
 Saturn -80008-06-25 15:49 J -27501323.08 -27501322.84 -27501322.60 0.0266 0.0036
 Saturn -80007-07-07 19:11 J -27500945.90 -27500945.70 -27500945.48 0.0268 0.0124
 Saturn -80006-07-20 05:59 J -27500568.40 -27500568.25 -27500568.08 0.0270 0.0206

80TH MILLENNIUM BCE

This is a list of transits of Moon in the 80th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-80000-12-18 21:20 J		-27498224.80	-27498224.61	-27498224.41	0.1951	0.0357	
Jupiter	-79999-09-22 21:06 J		-27497946.87	-27497946.62	-27497946.37	0.0493	0.0027	
Saturn	-79996-12-07 07:40 J		-27496775.35	-27496775.18	-27496774.99	0.0296	0.0203	
Saturn	-79995-12-22 07:40 J		-27496395.41	-27496395.18	-27496394.95	0.0296	0.0081	
Saturn	-79993-01-06 00:42 J		-27496015.70	-27496015.47	-27496015.24	0.0294	0.0042	
Jupiter	-79993-03-15 17:44 J		-27495945.90	-27495945.76	-27495945.62	0.0535	0.0415	
Saturn	-79992-01-19 07:25 J		-27495636.39	-27495636.19	-27495635.99	0.0292	0.0158	
Saturn	-79991-02-02 00:13 J		-27495257.59	-27495257.49	-27495257.38	0.0289	0.0260	
Jupiter	-79987-09-27 09:06 J		-27493559.32	-27493559.12	-27493558.90	0.0495	0.0213	
Jupiter	-79981-03-20 18:42 J		-27491557.92	-27491557.72	-27491557.51	0.0534	0.0202	
Saturn	-79981-05-28 21:06 J		-27491488.77	-27491488.62	-27491488.45	0.0264	0.0198	
Saturn	-79980-06-09 11:30 J		-27491112.23	-27491112.02	-27491111.80	0.0264	0.0106	
Saturn	-79979-06-21 05:59 J		-27490735.50	-27490735.25	-27490735.01	0.0265	0.0007	
Saturn	-79978-07-02 22:47 J		-27490358.79	-27490358.55	-27490358.30	0.0267	0.0084	
Uranus	-79977-06-14 00:13 J		-27490011.58	-27490011.49	-27490011.35	0.0147	0.0131	
Saturn	-79977-07-13 23:16 J		-27489981.72	-27489981.53	-27489981.33	0.0269	0.0168	
Uranus	-79976-06-19 11:59 J		-27489641.17	-27489641.00	-27489640.81	0.0147	0.0100	
Saturn	-79976-07-26 14:08 J		-27489604.00	-27489603.91	-27489603.81	0.0271	0.0247	
Uranus	-79975-06-24 10:32 J		-27489271.28	-27489271.06	-27489270.81	0.0148	0.0060	
Jupiter	-79975-10-02 07:25 J		-27489171.31	-27489171.19	-27489171.06	0.0495	0.0419	
Uranus	-79974-06-29 22:04 J		-27488900.81	-27488900.58	-27488900.34	0.0148	0.0042	
Uranus	-79973-07-03 23:44 J		-27488530.78	-27488530.51	-27488530.25	0.0147	0.0004	

Uranus -79972-07-09 09:06 J -27488160.36 -27488160.12 -27488159.87 0.0147 0.0030
 Uranus -79971-07-14 14:08 J -27487790.15 -27487789.91 -27487789.66 0.0147 0.0059
 Uranus -79970-07-19 20:52 J -27487419.80 -27487419.63 -27487419.45 0.0147 0.0102
 Jupiter -79969-03-25 12:13 J -27487170.22 -27487169.99 -27487169.76 0.0534 0.0061
 Uranus -79969-07-24 05:59 J -27487049.40 -27487049.25 -27487049.09 0.0147 0.0118
 Saturn -79967-12-01 07:40 J -27486189.30 -27486189.18 -27486189.03 0.0296 0.0249
 Saturn -79966-12-16 06:28 J -27485809.45 -27485809.23 -27485809.00 0.0296 0.0131
 Saturn -79965-12-29 20:52 J -27485429.88 -27485429.63 -27485429.38 0.0295 0.0010
 Saturn -79963-01-13 03:35 J -27485050.58 -27485050.35 -27485050.12 0.0293 0.0109
 Saturn -79962-01-27 02:52 J -27484671.53 -27484671.38 -27484671.22 0.0290 0.0218
 Mars -79961-06-07 10:32 J -27484174.20 -27484174.06 -27484173.92 0.1601 0.0975
 Jupiter -79957-03-30 08:52 J -27482782.28 -27482782.13 -27482781.96 0.0533 0.0371
 Saturn -79952-05-24 10:04 J -27480901.19 -27480901.08 -27480900.97 0.0264 0.0234
 Saturn -79951-06-04 14:52 J -27480525.09 -27480524.88 -27480524.67 0.0264 0.0145
 Neptune -79951-10-03 16:32 J -27480403.86 -27480403.81 -27480403.71 0.0088 0.0085
 Saturn -79950-06-15 23:30 J -27480148.76 -27480148.52 -27480148.27 0.0265 0.0048
 Neptune -79950-10-06 03:20 J -27480036.51 -27480036.36 -27480036.17 0.0088 0.0066
 Saturn -79949-06-26 20:23 J -27479771.88 -27479771.65 -27479771.41 0.0266 0.0047
 Neptune -79949-10-07 19:25 J -27479668.91 -27479668.69 -27479668.44 0.0088 0.0045
 Saturn -79948-07-08 23:59 J -27479394.70 -27479394.50 -27479394.28 0.0268 0.0133
 Neptune -79948-10-10 11:16 J -27479301.27 -27479301.03 -27479300.78 0.0088 0.0026
 Saturn -79947-07-21 05:44 J -27479017.42 -27479017.26 -27479017.10 0.0270 0.0212
 Neptune -79947-10-12 23:01 J -27478933.81 -27478933.54 -27478933.27 0.0088 0.0003
 Neptune -79946-10-15 18:28 J -27478565.98 -27478565.73 -27478565.47 0.0088 0.0015
 Neptune -79945-10-17 01:54 J -27478198.64 -27478198.42 -27478198.16 0.0088 0.0038
 Neptune -79944-10-19 23:16 J -27477830.72 -27477830.53 -27477830.30 0.0088 0.0054
 Neptune -79943-10-22 06:13 J -27477463.34 -27477463.24 -27477463.09 0.0088 0.0078
 Jupiter -79940-09-12 22:04 J -27476406.65 -27476406.58 -27476406.49 0.0491 0.0458
 Saturn -79937-12-08 11:16 J -27475224.20 -27475224.03 -27475223.84 0.0296 0.0192
 Uranus -79937-12-17 01:25 J -27475215.50 -27475215.44 -27475215.37 0.0131 0.0127

Uranus	-79936-12-21 12:56 J	-27474846.05	-27474845.96	-27474845.84	0.0131	0.0119
Saturn	-79936-12-23 12:13 J	-27474844.21	-27474843.99	-27474843.75	0.0296	0.0071
Uranus	-79935-12-25 11:16 J	-27474477.21	-27474477.03	-27474476.81	0.0131	0.0084
Saturn	-79934-01-07 03:35 J	-27474464.59	-27474464.35	-27474464.11	0.0294	0.0053
Uranus	-79934-12-29 21:49 J	-27474107.78	-27474107.59	-27474107.37	0.0131	0.0073
Saturn	-79933-01-21 05:59 J	-27474085.44	-27474085.25	-27474085.04	0.0292	0.0169
Uranus	-79932-01-01 19:11 J	-27473738.94	-27473738.70	-27473738.45	0.0131	0.0042
Saturn	-79932-02-02 19:25 J	-27473706.76	-27473706.69	-27473706.61	0.0289	0.0273
Uranus	-79931-01-06 04:47 J	-27473369.55	-27473369.30	-27473369.05	0.0131	0.0021
Uranus	-79930-01-10 01:25 J	-27473000.70	-27473000.44	-27473000.18	0.0131	0.0003
Uranus	-79929-01-14 10:04 J	-27472631.32	-27472631.08	-27472630.83	0.0131	0.0028
Mars	-79929-06-14 23:16 J	-27472478.64	-27472478.53	-27472478.43	0.1590	0.1272
Uranus	-79928-01-17 06:28 J	-27472262.47	-27472262.23	-27472261.98	0.0131	0.0038
Jupiter	-79928-09-17 13:40 J	-27472019.15	-27472018.93	-27472018.69	0.0493	0.0200
Uranus	-79927-01-21 15:06 J	-27471893.06	-27471892.87	-27471892.65	0.0132	0.0074
Uranus	-79926-01-25 11:16 J	-27471524.21	-27471524.03	-27471523.81	0.0132	0.0083
Uranus	-79925-01-29 20:08 J	-27471154.76	-27471154.66	-27471154.53	0.0132	0.0116
Uranus	-79924-02-01 16:04 J	-27470785.85	-27470785.83	-27470785.76	0.0132	0.0131
Saturn	-79923-05-19 13:54 J	-27470313.92	-27470313.92	-27470313.90	0.0265	0.0265
Saturn	-79922-05-31 01:11 J	-27469937.61	-27469937.45	-27469937.28	0.0264	0.0186
Saturn	-79921-06-10 16:32 J	-27469561.04	-27469560.81	-27469560.58	0.0264	0.0091
Saturn	-79920-06-22 05:01 J	-27469184.54	-27469184.29	-27469184.03	0.0265	0.0006
Saturn	-79919-07-03 21:35 J	-27468807.83	-27468807.60	-27468807.36	0.0267	0.0094
Saturn	-79918-07-16 04:18 J	-27468430.50	-27468430.32	-27468430.14	0.0269	0.0176
Saturn	-79917-07-27 20:52 J	-27468052.69	-27468052.63	-27468052.53	0.0271	0.0256
Jupiter	-79916-09-22 00:28 J	-27467631.71	-27467631.48	-27467631.25	0.0493	0.0016
Jupiter	-79910-03-16 03:06 J	-27465630.49	-27465630.37	-27465630.25	0.0536	0.0449
Saturn	-79908-12-02 08:08 J	-27464638.30	-27464638.16	-27464638.00	0.0296	0.0238
Saturn	-79907-12-17 05:44 J	-27464258.49	-27464258.26	-27464258.03	0.0296	0.0120
Saturn	-79906-12-31 22:18 J	-27463878.81	-27463878.57	-27463878.33	0.0295	0.0004

Saturn -79904-01-14 08:23 J -27463499.36 -27463499.15 -27463498.93 0.0293 0.0123
 Jupiter -79904-09-26 22:18 J -27463243.79 -27463243.57 -27463243.34 0.0494 0.0194
 Saturn -79903-01-28 09:35 J -27463120.24 -27463120.10 -27463119.96 0.0290 0.0231
 Jupiter -79898-03-20 23:01 J -27461242.75 -27461242.54 -27461242.33 0.0535 0.0225
 Saturn -79893-05-25 10:04 J -27459350.20 -27459350.08 -27459349.93 0.0264 0.0222
 Uranus -79893-06-14 07:25 J -27459330.31 -27459330.19 -27459330.04 0.0147 0.0124
 Saturn -79892-06-05 14:23 J -27458974.11 -27458973.90 -27458973.68 0.0264 0.0130
 Uranus -79892-06-19 18:42 J -27458959.90 -27458959.72 -27458959.51 0.0148 0.0094
 Jupiter -79892-10-01 05:59 J -27458856.39 -27458856.25 -27458856.11 0.0495 0.0404
 Saturn -79891-06-17 05:30 J -27458597.50 -27458597.27 -27458597.03 0.0265 0.0034
 Uranus -79891-06-24 16:18 J -27458590.03 -27458589.82 -27458589.58 0.0148 0.0071
 Saturn -79890-06-29 03:35 J -27458220.58 -27458220.35 -27458220.11 0.0266 0.0060
 Uranus -79890-06-30 04:47 J -27458219.55 -27458219.30 -27458219.05 0.0148 0.0025
 Uranus -79889-07-04 05:16 J -27457849.54 -27457849.28 -27457849.02 0.0148 0.0006
 Saturn -79889-07-10 01:40 J -27457843.63 -27457843.43 -27457843.20 0.0268 0.0142
 Uranus -79888-07-09 16:04 J -27457479.06 -27457478.83 -27457478.58 0.0147 0.0036
 Saturn -79888-07-22 05:30 J -27457466.41 -27457466.27 -27457466.12 0.0270 0.0219
 Uranus -79887-07-14 20:08 J -27457108.89 -27457108.66 -27457108.42 0.0147 0.0069
 Jupiter -79886-03-25 20:52 J -27456854.85 -27456854.63 -27456854.41 0.0534 0.0050
 Uranus -79886-07-20 04:47 J -27456738.49 -27456738.30 -27456738.10 0.0147 0.0092
 Uranus -79885-07-24 12:13 J -27456368.06 -27456367.99 -27456367.87 0.0147 0.0137
 Mars -79882-06-10 04:04 J -27455317.50 -27455317.33 -27455317.16 0.1598 0.0522
 Saturn -79878-12-10 19:40 J -27453672.87 -27453672.68 -27453672.48 0.0296 0.0180
 Saturn -79877-12-24 16:47 J -27453293.04 -27453292.80 -27453292.55 0.0295 0.0056
 Pluto -79876-08-03 05:01 J -27453071.53 -27453071.29 -27453071.02 0.0066 0.0012
 Saturn -79875-01-08 03:20 J -27452913.60 -27452913.36 -27452913.11 0.0294 0.0068
 Saturn -79874-01-22 03:35 J -27452534.53 -27452534.35 -27452534.15 0.0292 0.0183
 Jupiter -79874-03-30 18:56 J -27452466.88 -27452466.71 -27452466.53 0.0532 0.0354
 Saturn -79873-02-04 19:54 J -27452155.71 -27452155.67 -27452155.64 0.0289 0.0284
 Neptune -79868-04-02 20:52 J -27450271.66 -27450271.63 -27450271.57 0.0089 0.0087

Neptune -79867-04-05 03:06 J -27449904.54 -27449904.37 -27449904.15 0.0089 0.0060
 Neptune -79866-04-07 16:18 J -27449537.01 -27449536.82 -27449536.60 0.0089 0.0049
 Neptune -79865-04-08 19:25 J -27449169.93 -27449169.69 -27449169.43 0.0089 0.0021
 Neptune -79864-04-11 11:30 J -27448802.27 -27448802.02 -27448801.77 0.0089 0.0010
 Saturn -79864-05-20 18:13 J -27448762.79 -27448762.74 -27448762.68 0.0265 0.0256
 Neptune -79863-04-13 13:54 J -27448435.16 -27448434.92 -27448434.68 0.0089 0.0017
 Saturn -79863-06-01 07:40 J -27448386.35 -27448386.18 -27448385.99 0.0264 0.0174
 Neptune -79862-04-16 04:32 J -27448067.55 -27448067.31 -27448067.06 0.0089 0.0028
 Saturn -79862-06-12 17:30 J -27448010.01 -27448009.77 -27448009.53 0.0265 0.0075
 Neptune -79861-04-17 09:49 J -27447700.26 -27447700.09 -27447699.88 0.0089 0.0056
 Saturn -79861-06-23 04:47 J -27447633.54 -27447633.30 -27447633.04 0.0265 0.0022
 Neptune -79860-04-19 20:37 J -27447332.79 -27447332.64 -27447332.45 0.0089 0.0067
 Saturn -79860-07-05 04:04 J -27447256.54 -27447256.33 -27447256.11 0.0267 0.0107
 Saturn -79859-07-17 13:40 J -27446879.09 -27446878.93 -27446878.74 0.0269 0.0185
 Saturn -79858-07-30 03:20 J -27446501.41 -27446501.36 -27446501.29 0.0271 0.0264
 Jupiter -79857-09-12 04:47 J -27446091.38 -27446091.30 -27446091.21 0.0492 0.0458
 Uranus -79852-12-21 23:44 J -27444164.64 -27444164.51 -27444164.34 0.0131 0.0104
 Uranus -79851-12-25 21:49 J -27443795.76 -27443795.59 -27443795.41 0.0131 0.0095
 Mars -79850-06-17 15:35 J -27443621.90 -27443621.85 -27443621.79 0.1588 0.1494
 Uranus -79850-12-30 08:37 J -27443426.35 -27443426.14 -27443425.91 0.0131 0.0061
 Saturn -79849-12-03 11:01 J -27443087.19 -27443087.04 -27443086.87 0.0296 0.0228
 Uranus -79848-01-02 05:44 J -27443057.50 -27443057.26 -27443057.02 0.0131 0.0045
 Saturn -79848-12-18 11:30 J -27442707.24 -27442707.02 -27442706.79 0.0296 0.0105
 Uranus -79847-01-06 16:04 J -27442688.08 -27442687.83 -27442687.58 0.0131 0.0020
 Saturn -79846-01-02 07:11 J -27442327.43 -27442327.20 -27442326.96 0.0295 0.0020
 Uranus -79846-01-10 12:13 J -27442319.24 -27442318.99 -27442318.73 0.0131 0.0006
 Uranus -79845-01-14 21:49 J -27441949.84 -27441949.59 -27441949.34 0.0131 0.0020
 Saturn -79845-01-16 17:44 J -27441947.96 -27441947.76 -27441947.54 0.0293 0.0139
 Jupiter -79845-09-16 15:20 J -27441704.07 -27441703.86 -27441703.65 0.0492 0.0211
 Uranus -79844-01-17 17:16 J -27441581.00 -27441580.78 -27441580.54 0.0131 0.0054

Saturn	-79844-01-29 15:35 J	-27441568.96	-27441568.85	-27441568.70	0.0290	0.0244
Uranus	-79843-01-22 02:23 J	-27441211.60	-27441211.40	-27441211.17	0.0132	0.0064
Uranus	-79842-01-25 21:49 J	-27440842.73	-27440842.59	-27440842.40	0.0132	0.0100
Uranus	-79841-01-30 06:56 J	-27440473.32	-27440473.21	-27440473.06	0.0132	0.0111
Saturn	-79834-05-27 10:32 J	-27437799.19	-27437799.06	-27437798.90	0.0264	0.0211
Saturn	-79833-06-06 21:35 J	-27437422.81	-27437422.60	-27437422.38	0.0264	0.0118
Jupiter	-79833-09-21 11:30 J	-27437316.26	-27437316.02	-27437315.77	0.0493	0.0009
Saturn	-79832-06-18 15:35 J	-27437046.09	-27437045.85	-27437045.61	0.0265	0.0018
Saturn	-79831-06-30 09:06 J	-27436669.36	-27436669.12	-27436668.87	0.0266	0.0072
Saturn	-79830-07-12 04:32 J	-27436292.51	-27436292.31	-27436292.09	0.0268	0.0151
Saturn	-79829-07-23 13:25 J	-27435915.05	-27435914.94	-27435914.80	0.0270	0.0231
Jupiter	-79827-03-15 07:25 J	-27435315.29	-27435315.19	-27435315.07	0.0536	0.0472
Jupiter	-79821-09-25 20:08 J	-27432928.88	-27432928.66	-27432928.43	0.0494	0.0172
Saturn	-79820-11-27 03:35 J	-27432501.41	-27432501.35	-27432501.28	0.0296	0.0284
Saturn	-79819-12-12 04:32 J	-27432121.51	-27432121.31	-27432121.09	0.0296	0.0165
Saturn	-79818-12-26 21:35 J	-27431741.85	-27431741.60	-27431741.34	0.0295	0.0040
Saturn	-79816-01-09 06:56 J	-27431362.45	-27431362.21	-27431361.97	0.0294	0.0084
Saturn	-79815-01-23 09:49 J	-27430983.26	-27430983.09	-27430982.91	0.0291	0.0198
Jupiter	-79815-03-20 04:04 J	-27430927.52	-27430927.33	-27430927.14	0.0534	0.0248
Uranus	-79809-06-14 15:49 J	-27428648.94	-27428648.84	-27428648.71	0.0147	0.0130
Jupiter	-79809-09-30 17:59 J	-27428540.88	-27428540.75	-27428540.61	0.0495	0.0400
Uranus	-79808-06-20 03:20 J	-27428278.55	-27428278.36	-27428278.17	0.0148	0.0096
Uranus	-79807-06-25 01:11 J	-27427908.68	-27427908.45	-27427908.21	0.0148	0.0057
Uranus	-79806-06-30 13:40 J	-27427538.17	-27427537.93	-27427537.68	0.0148	0.0038
Saturn	-79805-05-22 03:06 J	-27427211.44	-27427211.37	-27427211.27	0.0265	0.0246
Uranus	-79805-07-04 13:11 J	-27427168.20	-27427167.95	-27427167.68	0.0148	0.0010
Saturn	-79804-06-02 11:59 J	-27426835.18	-27426835.00	-27426834.79	0.0265	0.0161
Uranus	-79804-07-10 00:56 J	-27426797.69	-27426797.46	-27426797.21	0.0147	0.0035
Jupiter	-79803-03-25 02:23 J	-27426539.63	-27426539.40	-27426539.17	0.0533	0.0028
Mars	-79803-06-12 01:11 J	-27426460.63	-27426460.45	-27426460.26	0.1596	0.0398

Saturn -79803-06-13 18:42 J -27426458.96 -27426458.72 -27426458.48 0.0265 0.0058
 Uranus -79803-07-15 03:35 J -27426427.58 -27426427.35 -27426427.11 0.0147 0.0068
 Saturn -79802-06-25 11:59 J -27426082.24 -27426082.00 -27426081.76 0.0266 0.0035
 Uranus -79802-07-20 13:11 J -27426057.11 -27426056.95 -27426056.78 0.0147 0.0109
 Saturn -79801-07-06 15:20 J -27425705.08 -27425704.86 -27425704.65 0.0267 0.0119
 Uranus -79801-07-24 19:40 J -27425686.81 -27425686.68 -27425686.54 0.0147 0.0126
 Saturn -79800-07-18 21:35 J -27425327.77 -27425327.60 -27425327.42 0.0269 0.0196
 Jupiter -79791-03-29 13:11 J -27422152.12 -27422151.95 -27422151.77 0.0533 0.0324
 Saturn -79790-12-05 23:59 J -27421535.66 -27421535.50 -27421535.33 0.0296 0.0214
 Pluto -79789-02-07 22:18 J -27421471.81 -27421471.57 -27421471.31 0.0079 0.0011
 Saturn -79789-12-20 01:40 J -27421155.65 -27421155.43 -27421155.20 0.0296 0.0089
 Saturn -79787-01-03 20:23 J -27420775.89 -27420775.65 -27420775.41 0.0295 0.0037
 Saturn -79786-01-18 02:37 J -27420396.59 -27420396.39 -27420396.17 0.0293 0.0155
 Neptune -79786-10-05 10:18 J -27420136.19 -27420136.07 -27420135.93 0.0088 0.0078
 Saturn -79785-01-31 19:25 J -27420017.78 -27420017.69 -27420017.57 0.0290 0.0261
 Neptune -79785-10-07 02:52 J -27419768.57 -27419768.38 -27419768.15 0.0088 0.0050
 Neptune -79784-10-09 12:56 J -27419401.19 -27419400.96 -27419400.70 0.0088 0.0038
 Neptune -79783-10-12 09:49 J -27419033.35 -27419033.09 -27419032.83 0.0088 0.0009
 Neptune -79782-10-14 17:30 J -27418666.04 -27418665.77 -27418665.51 0.0088 0.0002
 Neptune -79781-10-16 14:37 J -27418298.13 -27418297.89 -27418297.63 0.0088 0.0031
 Neptune -79780-10-18 22:04 J -27417930.79 -27417930.58 -27417930.33 0.0088 0.0043
 Neptune -79779-10-21 17:44 J -27417562.89 -27417562.76 -27417562.57 0.0088 0.0071
 Neptune -79778-10-24 04:04 J -27417195.39 -27417195.33 -27417195.20 0.0088 0.0083
 Saturn -79775-05-28 17:30 J -27416247.93 -27416247.77 -27416247.62 0.0264 0.0199
 Saturn -79774-06-09 08:52 J -27415871.35 -27415871.13 -27415870.91 0.0264 0.0102
 Jupiter -79774-09-12 04:18 J -27415776.37 -27415776.32 -27415776.26 0.0491 0.0477
 Saturn -79773-06-19 23:01 J -27415494.79 -27415494.54 -27415494.29 0.0265 0.0003
 Saturn -79772-07-01 13:11 J -27415118.18 -27415117.95 -27415117.70 0.0266 0.0087
 Saturn -79771-07-13 14:23 J -27414741.09 -27414740.90 -27414740.71 0.0268 0.0167
 Saturn -79770-07-26 04:47 J -27414363.40 -27414363.30 -27414363.20 0.0271 0.0243

Uranus	-79769-12-17 22:18 J	-27413852.63	-27413852.57	-27413852.48	0.0131	0.0126
Uranus	-79768-12-22 10:47 J	-27413483.14	-27413483.05	-27413482.91	0.0131	0.0117
Uranus	-79767-12-26 08:23 J	-27413114.34	-27413114.15	-27413113.93	0.0131	0.0080
Uranus	-79766-12-30 19:25 J	-27412744.88	-27412744.69	-27412744.45	0.0131	0.0070
Uranus	-79764-01-02 16:04 J	-27412376.06	-27412375.83	-27412375.57	0.0131	0.0037
Uranus	-79763-01-07 02:37 J	-27412006.64	-27412006.39	-27412006.14	0.0131	0.0017
Uranus	-79762-01-10 22:32 J	-27411637.81	-27411637.56	-27411637.30	0.0131	0.0004
Jupiter	-79762-09-17 00:56 J	-27411388.67	-27411388.46	-27411388.24	0.0492	0.0227
Uranus	-79761-01-15 07:54 J	-27411268.40	-27411268.17	-27411267.91	0.0131	0.0035
Saturn	-79761-11-28 14:23 J	-27410950.01	-27410949.90	-27410949.79	0.0296	0.0268
Uranus	-79760-01-18 03:35 J	-27410899.57	-27410899.35	-27410899.10	0.0131	0.0046
Saturn	-79760-12-13 13:11 J	-27410570.17	-27410569.95	-27410569.73	0.0296	0.0149
Uranus	-79759-01-22 13:25 J	-27410530.12	-27410529.94	-27410529.73	0.0132	0.0082
Saturn	-79759-12-28 06:28 J	-27410190.48	-27410190.23	-27410189.98	0.0295	0.0024
Uranus	-79758-01-26 08:52 J	-27410161.29	-27410161.13	-27410160.93	0.0132	0.0091
Saturn	-79757-01-11 18:28 J	-27409810.95	-27409810.73	-27409810.51	0.0293	0.0101
Uranus	-79757-01-30 18:56 J	-27409791.79	-27409791.71	-27409791.63	0.0132	0.0124
Saturn	-79756-01-24 23:16 J	-27409431.68	-27409431.53	-27409431.37	0.0291	0.0216
Mars	-79756-06-06 14:37 J	-27409299.01	-27409298.89	-27409298.77	0.1606	0.1260
Jupiter	-79750-09-21 06:56 J	-27407001.45	-27407001.21	-27407000.97	0.0493	0.0029
Saturn	-79746-05-24 09:49 J	-27405660.20	-27405660.09	-27405659.97	0.0265	0.0233
Saturn	-79745-06-03 14:37 J	-27405284.10	-27405283.89	-27405283.68	0.0265	0.0143
Jupiter	-79744-03-14 09:06 J	-27405000.19	-27405000.12	-27405000.05	0.0535	0.0506
Saturn	-79744-06-15 02:23 J	-27404907.64	-27404907.40	-27404907.17	0.0265	0.0044
Saturn	-79743-06-27 00:28 J	-27404530.71	-27404530.48	-27404530.24	0.0266	0.0049
Saturn	-79742-07-09 01:25 J	-27404153.65	-27404153.44	-27404153.22	0.0267	0.0134
Saturn	-79741-07-20 03:20 J	-27403776.51	-27403776.36	-27403776.19	0.0269	0.0208
Jupiter	-79738-09-26 04:32 J	-27402613.53	-27402613.31	-27402613.08	0.0494	0.0150
Jupiter	-79732-03-19 04:47 J	-27400612.50	-27400612.30	-27400612.10	0.0535	0.0287
Saturn	-79731-12-07 19:25 J	-27399983.86	-27399983.69	-27399983.50	0.0296	0.0197

Saturn -79730-12-22 19:25 J -27399603.93 -27399603.69 -27399603.46 0.0296 0.0071
 Saturn -79728-01-05 09:20 J -27399224.36 -27399224.11 -27399223.86 0.0295 0.0055
 Saturn -79727-01-19 11:01 J -27398845.23 -27398845.04 -27398844.83 0.0292 0.0175
 Saturn -79726-02-02 03:35 J -27398466.41 -27398466.35 -27398466.28 0.0290 0.0279
 Jupiter -79726-09-30 15:35 J -27398226.01 -27398225.85 -27398225.69 0.0495 0.0378
 Uranus -79725-06-15 03:35 J -27397967.48 -27397967.35 -27397967.20 0.0148 0.0121
 Mars -79724-06-14 06:28 J -27397603.41 -27397603.23 -27397603.05 0.1594 0.0694
 Uranus -79724-06-20 14:08 J -27397597.10 -27397596.91 -27397596.70 0.0148 0.0091
 Uranus -79723-06-25 11:44 J -27397227.22 -27397227.01 -27397226.77 0.0148 0.0066
 Uranus -79722-07-01 00:28 J -27396856.72 -27396856.48 -27396856.22 0.0148 0.0020
 Uranus -79721-07-04 23:59 J -27396486.76 -27396486.50 -27396486.24 0.0148 0.0002
 Jupiter -79720-03-23 19:25 J -27396224.91 -27396224.69 -27396224.46 0.0534 0.0009
 Uranus -79720-07-10 12:42 J -27396116.21 -27396115.97 -27396115.73 0.0147 0.0044
 Uranus -79719-07-15 14:37 J -27395746.11 -27395745.89 -27395745.66 0.0147 0.0076
 Uranus -79718-07-21 01:54 J -27395375.60 -27395375.42 -27395375.24 0.0147 0.0101
 Saturn -79717-05-18 16:32 J -27395072.82 -27395072.81 -27395072.77 0.0265 0.0264
 Uranus -79717-07-25 06:56 J -27395005.22 -27395005.21 -27395005.17 0.0147 0.0146
 Saturn -79716-05-30 05:30 J -27394696.43 -27394696.27 -27394696.09 0.0264 0.0184
 Mars -79716-12-18 05:01 J -27394494.49 -27394494.29 -27394494.09 0.1945 0.0246
 Saturn -79715-06-10 18:13 J -27394319.96 -27394319.74 -27394319.50 0.0265 0.0088
 Saturn -79714-06-22 03:49 J -27393943.59 -27393943.34 -27393943.08 0.0265 0.0013
 Saturn -79713-07-02 22:18 J -27393566.80 -27393566.57 -27393566.34 0.0267 0.0101
 Saturn -79712-07-15 05:01 J -27393189.46 -27393189.29 -27393189.11 0.0268 0.0181
 Saturn -79711-07-27 18:56 J -27392811.78 -27392811.71 -27392811.62 0.0271 0.0256
 Jupiter -79708-03-28 23:59 J -27391836.68 -27391836.50 -27391836.32 0.0533 0.0302
 Neptune -79704-04-02 05:44 J -27390371.28 -27390371.26 -27390371.23 0.0089 0.0088
 Neptune -79703-04-04 18:56 J -27390003.82 -27390003.71 -27390003.55 0.0089 0.0073
 Neptune -79702-04-06 21:35 J -27389636.79 -27389636.60 -27389636.38 0.0089 0.0051
 Saturn -79702-12-01 03:35 J -27389398.47 -27389398.35 -27389398.20 0.0296 0.0252
 Neptune -79701-04-08 13:25 J -27389269.16 -27389268.94 -27389268.70 0.0089 0.0036

Saturn -79701-12-15 03:49 J -27389018.56 -27389018.34 -27389018.12 0.0296 0.0131
 Neptune -79700-04-10 15:49 J -27388902.07 -27388901.84 -27388901.58 0.0089 0.0014
 Saturn -79700-12-29 23:44 J -27388638.75 -27388638.51 -27388638.27 0.0295 0.0005
 Neptune -79699-04-13 05:44 J -27388534.51 -27388534.26 -27388534.00 0.0089 0.0003
 Saturn -79698-01-13 12:42 J -27388259.18 -27388258.97 -27388258.75 0.0293 0.0121
 Neptune -79698-04-15 11:30 J -27388167.25 -27388167.02 -27388166.79 0.0089 0.0025
 Saturn -79697-01-27 14:52 J -27387880.01 -27387879.88 -27387879.73 0.0290 0.0233
 Neptune -79697-04-16 20:52 J -27387799.85 -27387799.63 -27387799.39 0.0089 0.0041
 Neptune -79696-04-19 08:08 J -27387432.33 -27387432.16 -27387431.99 0.0089 0.0063
 Neptune -79695-04-21 12:42 J -27387065.06 -27387064.97 -27387064.82 0.0089 0.0079
 Saturn -79687-05-25 12:42 J -27384109.10 -27384108.97 -27384108.82 0.0265 0.0217
 Saturn -79686-06-05 20:23 J -27383732.85 -27383732.65 -27383732.43 0.0265 0.0128
 Saturn -79685-06-16 14:23 J -27383356.13 -27383355.90 -27383355.66 0.0265 0.0029
 Saturn -79684-06-28 11:16 J -27382979.27 -27382979.03 -27382978.79 0.0266 0.0065
 Uranus -79684-12-22 22:47 J -27382801.70 -27382801.55 -27382801.38 0.0131 0.0101
 Saturn -79683-07-10 07:40 J -27382602.38 -27382602.18 -27382601.95 0.0268 0.0147
 Uranus -79683-12-26 20:08 J -27382432.83 -27382432.66 -27382432.47 0.0131 0.0092
 Saturn -79682-07-22 12:42 J -27382225.11 -27382224.97 -27382224.83 0.0270 0.0223
 Uranus -79682-12-31 07:11 J -27382063.42 -27382063.20 -27382062.95 0.0131 0.0056
 Uranus -79680-01-03 04:04 J -27381694.57 -27381694.33 -27381694.08 0.0131 0.0041
 Uranus -79679-01-07 14:52 J -27381325.13 -27381324.88 -27381324.63 0.0131 0.0013
 Jupiter -79679-09-15 17:44 J -27381073.97 -27381073.76 -27381073.56 0.0492 0.0250
 Uranus -79678-01-11 10:47 J -27380956.30 -27380956.05 -27380955.80 0.0131 0.0012
 Uranus -79677-01-15 20:37 J -27380586.88 -27380586.64 -27380586.38 0.0131 0.0028
 Mars -79677-06-08 21:20 J -27380441.80 -27380441.61 -27380441.43 0.1603 0.0513
 Uranus -79676-01-18 16:18 J -27380218.03 -27380217.82 -27380217.59 0.0131 0.0062
 Uranus -79675-01-23 01:54 J -27379848.62 -27379848.42 -27379848.20 0.0132 0.0072
 Uranus -79674-01-26 21:06 J -27379479.73 -27379479.62 -27379479.45 0.0132 0.0109
 Uranus -79673-01-31 06:42 J -27379110.30 -27379110.22 -27379110.09 0.0132 0.0120
 Saturn -79673-11-24 11:30 J -27378812.04 -27378812.02 -27378811.98 0.0296 0.0293

Saturn -79672-12-09 14:52 J -27378432.08 -27378431.88 -27378431.68 0.0296 0.0177
 Saturn -79671-12-24 10:32 J -27378052.31 -27378052.06 -27378051.81 0.0296 0.0051
 Saturn -79669-01-07 21:06 J -27377672.86 -27377672.62 -27377672.37 0.0294 0.0075
 Saturn -79668-01-20 23:16 J -27377293.70 -27377293.53 -27377293.34 0.0292 0.0192
 Jupiter -79667-09-20 15:35 J -27376686.08 -27376685.85 -27376685.61 0.0493 0.0060
 Saturn -79658-05-21 04:32 J -27373521.37 -27373521.31 -27373521.22 0.0265 0.0250
 Saturn -79657-05-31 16:47 J -27373144.98 -27373144.80 -27373144.61 0.0264 0.0167
 Saturn -79656-06-12 00:13 J -27372768.73 -27372768.49 -27372768.24 0.0265 0.0069
 Saturn -79655-06-23 12:28 J -27372392.22 -27372391.98 -27372391.74 0.0265 0.0028
 Jupiter -79655-09-24 23:44 J -27372298.75 -27372298.51 -27372298.26 0.0493 0.0120
 Saturn -79654-07-05 12:56 J -27372015.16 -27372014.96 -27372014.73 0.0267 0.0115
 Saturn -79653-07-16 20:08 J -27371637.82 -27371637.66 -27371637.48 0.0269 0.0196
 Saturn -79652-07-29 05:59 J -27371260.26 -27371260.25 -27371260.23 0.0271 0.0270
 Jupiter -79649-03-18 00:56 J -27370297.64 -27370297.46 -27370297.28 0.0535 0.0321
 Jupiter -79643-09-29 17:30 J -27367910.92 -27367910.77 -27367910.60 0.0494 0.0356
 Saturn -79643-12-02 23:30 J -27367846.66 -27367846.52 -27367846.36 0.0296 0.0232
 Uranus -79642-06-11 18:56 J -27367655.72 -27367655.71 -27367655.66 0.0147 0.0147
 Saturn -79642-12-18 01:40 J -27367466.64 -27367466.43 -27367466.20 0.0295 0.0109
 Uranus -79641-06-15 17:30 J -27367285.89 -27367285.77 -27367285.63 0.0148 0.0126
 Saturn -79641-12-31 22:04 J -27367086.82 -27367086.58 -27367086.34 0.0294 0.0018
 Uranus -79640-06-21 03:35 J -27366915.54 -27366915.35 -27366915.13 0.0148 0.0091
 Saturn -79639-01-15 07:54 J -27366707.37 -27366707.17 -27366706.94 0.0293 0.0139
 Uranus -79639-06-26 01:54 J -27366545.64 -27366545.42 -27366545.17 0.0148 0.0052
 Saturn -79638-01-29 04:32 J -27366328.43 -27366328.31 -27366328.17 0.0290 0.0249
 Uranus -79638-07-01 14:37 J -27366175.13 -27366174.89 -27366174.63 0.0148 0.0032
 Jupiter -79637-03-23 05:30 J -27365909.49 -27365909.27 -27365909.04 0.0534 0.0020
 Uranus -79637-07-05 13:40 J -27365805.19 -27365804.93 -27365804.68 0.0148 0.0018
 Uranus -79636-07-11 02:37 J -27365434.62 -27365434.39 -27365434.14 0.0147 0.0043
 Uranus -79635-07-16 03:20 J -27365064.56 -27365064.36 -27365064.12 0.0147 0.0079
 Uranus -79634-07-21 15:20 J -27364694.00 -27364693.86 -27364693.71 0.0147 0.0119

Uranus -79633-07-25 19:25 J -27364323.76 -27364323.69 -27364323.58 0.0147 0.0137
 Pluto -79630-08-04 10:04 J -27363219.20 -27363219.08 -27363218.93 0.0066 0.0056
 Pluto -79629-08-04 17:59 J -27362852.96 -27362852.75 -27362852.50 0.0066 0.0034
 Saturn -79628-05-26 18:42 J -27362557.87 -27362557.72 -27362557.56 0.0265 0.0203
 Saturn -79627-06-07 08:23 J -27362181.36 -27362181.15 -27362180.93 0.0265 0.0110
 Saturn -79626-06-19 01:54 J -27361804.66 -27361804.42 -27361804.17 0.0265 0.0012
 Jupiter -79625-03-27 17:30 J -27361521.96 -27361521.77 -27361521.56 0.0533 0.0269
 Saturn -79625-06-29 17:16 J -27361428.02 -27361427.78 -27361427.53 0.0266 0.0079
 Saturn -79624-07-11 14:52 J -27361051.08 -27361050.88 -27361050.68 0.0268 0.0160
 Saturn -79623-07-24 02:08 J -27360673.52 -27360673.41 -27360673.30 0.0270 0.0239
 Neptune -79622-10-04 17:01 J -27360235.88 -27360235.79 -27360235.70 0.0088 0.0083
 Neptune -79621-10-06 01:25 J -27359868.60 -27359868.44 -27359868.22 0.0088 0.0063
 Neptune -79620-10-08 23:16 J -27359500.74 -27359500.53 -27359500.28 0.0088 0.0044
 Neptune -79619-10-11 06:56 J -27359133.45 -27359133.21 -27359132.94 0.0088 0.0024
 Neptune -79618-10-14 04:47 J -27358765.57 -27358765.30 -27358765.03 0.0088 0.0002
 Neptune -79617-10-15 13:25 J -27358398.19 -27358397.94 -27358397.68 0.0088 0.0016
 Neptune -79616-10-18 08:08 J -27358030.40 -27358030.16 -27358029.90 0.0088 0.0038
 Neptune -79615-10-20 19:25 J -27357662.86 -27357662.69 -27357662.46 0.0088 0.0056
 Neptune -79614-10-23 09:20 J -27357295.22 -27357295.11 -27357294.95 0.0088 0.0077
 Saturn -79614-11-27 07:11 J -27357260.28 -27357260.20 -27357260.09 0.0296 0.0273
 Jupiter -79613-04-01 13:25 J -27357134.02 -27357133.94 -27357133.86 0.0532 0.0492
 Saturn -79613-12-11 06:56 J -27356880.42 -27356880.21 -27356879.98 0.0296 0.0154
 Saturn -79612-12-26 00:56 J -27356500.71 -27356500.46 -27356500.21 0.0296 0.0029
 Saturn -79610-01-09 12:28 J -27356121.21 -27356120.98 -27356120.75 0.0294 0.0095
 Saturn -79609-01-23 17:30 J -27355741.93 -27355741.77 -27355741.61 0.0292 0.0211
 Uranus -79601-12-18 23:01 J -27352489.62 -27352489.54 -27352489.44 0.0131 0.0123
 Uranus -79600-12-23 11:01 J -27352120.15 -27352120.04 -27352119.89 0.0131 0.0113
 Saturn -79599-05-22 16:04 J -27351969.92 -27351969.83 -27351969.72 0.0265 0.0237
 Uranus -79599-12-27 08:37 J -27351751.34 -27351751.14 -27351750.92 0.0131 0.0076
 Saturn -79598-06-02 22:18 J -27351593.77 -27351593.57 -27351593.36 0.0264 0.0149

Mars -79598-06-11 22:04 J -27351584.76 -27351584.58 -27351584.40 0.1601 0.0064
 Uranus -79598-12-31 19:40 J -27351381.89 -27351381.68 -27351381.44 0.0131 0.0064
 Saturn -79597-06-13 05:59 J -27351217.49 -27351217.25 -27351217.00 0.0265 0.0051
 Uranus -79596-01-03 16:18 J -27351013.05 -27351012.82 -27351012.56 0.0131 0.0031
 Saturn -79596-06-25 01:11 J -27350840.68 -27350840.45 -27350840.22 0.0266 0.0043
 Jupiter -79596-09-15 01:54 J -27350758.61 -27350758.42 -27350758.22 0.0491 0.0273
 Uranus -79595-01-08 02:52 J -27350643.63 -27350643.38 -27350643.13 0.0131 0.0011
 Saturn -79595-07-07 03:20 J -27350463.57 -27350463.36 -27350463.14 0.0267 0.0129
 Uranus -79594-01-11 22:47 J -27350274.80 -27350274.55 -27350274.30 0.0131 0.0011
 Saturn -79594-07-19 06:28 J -27350086.38 -27350086.23 -27350086.06 0.0269 0.0209
 Uranus -79593-01-16 08:37 J -27349905.38 -27349905.14 -27349904.90 0.0131 0.0041
 Uranus -79592-01-19 04:04 J -27349536.54 -27349536.33 -27349536.08 0.0131 0.0054
 Uranus -79591-01-23 13:54 J -27349167.09 -27349166.92 -27349166.72 0.0132 0.0090
 Uranus -79590-01-27 09:35 J -27348798.25 -27348798.10 -27348797.93 0.0132 0.0100
 Jupiter -79584-09-19 10:04 J -27346371.32 -27346371.08 -27346370.83 0.0492 0.0090
 Saturn -79584-12-04 23:16 J -27346294.69 -27346294.53 -27346294.35 0.0296 0.0210
 Saturn -79583-12-20 01:25 J -27345914.67 -27345914.44 -27345914.21 0.0295 0.0087
 Saturn -79581-01-03 18:28 J -27345534.97 -27345534.73 -27345534.48 0.0294 0.0039
 Saturn -79580-01-16 23:59 J -27345155.71 -27345155.50 -27345155.29 0.0292 0.0158
 Saturn -79579-01-30 17:01 J -27344776.87 -27344776.79 -27344776.69 0.0290 0.0267
 Jupiter -79572-09-24 01:40 J -27341983.65 -27341983.43 -27341983.20 0.0493 0.0093
 Saturn -79569-05-28 05:01 J -27341006.45 -27341006.29 -27341006.12 0.0265 0.0188
 Saturn -79568-06-08 20:08 J -27340629.89 -27340629.66 -27340629.43 0.0265 0.0091
 Saturn -79567-06-20 08:23 J -27340253.41 -27340253.15 -27340252.90 0.0266 0.0006
 Jupiter -79566-03-18 08:52 J -27339982.30 -27339982.13 -27339981.96 0.0535 0.0350
 Saturn -79566-07-01 23:01 J -27339876.78 -27339876.54 -27339876.31 0.0267 0.0094
 Saturn -79565-07-13 02:37 J -27339499.57 -27339499.39 -27339499.20 0.0268 0.0175
 Saturn -79564-07-25 16:47 J -27339121.87 -27339121.80 -27339121.70 0.0271 0.0253
 Jupiter -79560-09-28 17:30 J -27337595.95 -27337595.77 -27337595.58 0.0494 0.0332
 Uranus -79557-06-16 07:11 J -27336604.34 -27336604.20 -27336604.04 0.0148 0.0116

Uranus -79556-06-21 16:47 J -27336234.00 -27336233.80 -27336233.58 0.0148 0.0086
 Uranus -79555-06-26 15:20 J -27335864.08 -27335863.86 -27335863.62 0.0148 0.0059
 Saturn -79555-11-28 22:32 J -27335708.68 -27335708.56 -27335708.42 0.0296 0.0255
 Jupiter -79554-03-22 17:16 J -27335595.01 -27335594.78 -27335594.55 0.0534 0.0067
 Uranus -79554-07-02 04:04 J -27335493.59 -27335493.33 -27335493.08 0.0148 0.0012
 Saturn -79554-12-13 22:18 J -27335328.80 -27335328.57 -27335328.35 0.0296 0.0135
 Uranus -79553-07-06 03:06 J -27335123.62 -27335123.37 -27335123.11 0.0148 0.0008
 Saturn -79553-12-27 18:13 J -27334948.98 -27334948.74 -27334948.49 0.0295 0.0010
 Uranus -79552-07-11 17:01 J -27334753.03 -27334752.79 -27334752.56 0.0148 0.0054
 Saturn -79551-01-11 08:23 J -27334569.36 -27334569.15 -27334568.93 0.0294 0.0117
 Mars -79551-06-06 02:52 J -27334423.43 -27334423.38 -27334423.33 0.1612 0.1530
 Uranus -79551-07-16 17:59 J -27334382.96 -27334382.75 -27334382.54 0.0147 0.0087
 Saturn -79550-01-25 13:40 J -27334190.07 -27334189.93 -27334189.79 0.0291 0.0230
 Uranus -79550-07-22 06:28 J -27334012.37 -27334012.23 -27334012.06 0.0147 0.0113
 Pluto -79542-02-09 12:56 J -27331253.20 -27331252.96 -27331252.69 0.0078 0.0019
 Jupiter -79542-03-27 18:13 J -27331206.94 -27331206.74 -27331206.54 0.0534 0.0224
 Saturn -79540-05-23 23:01 J -27330418.67 -27330418.54 -27330418.40 0.0265 0.0223
 Neptune -79539-04-03 23:01 J -27330103.61 -27330103.54 -27330103.45 0.0089 0.0084
 Saturn -79539-06-04 02:37 J -27330042.60 -27330042.39 -27330042.17 0.0264 0.0131
 Neptune -79538-04-06 14:23 J -27329736.08 -27329735.90 -27329735.69 0.0089 0.0057
 Saturn -79538-06-15 16:18 J -27329666.05 -27329665.82 -27329665.58 0.0265 0.0034
 Neptune -79537-04-07 17:01 J -27329368.98 -27329368.79 -27329368.56 0.0089 0.0047
 Saturn -79537-06-26 13:40 J -27329289.16 -27329288.93 -27329288.69 0.0266 0.0060
 Neptune -79536-04-10 06:42 J -27329001.46 -27329001.22 -27329000.96 0.0089 0.0019
 Saturn -79536-07-08 11:01 J -27328912.25 -27328912.04 -27328911.82 0.0267 0.0143
 Neptune -79535-04-12 13:25 J -27328634.17 -27328633.94 -27328633.69 0.0089 0.0009
 Saturn -79535-07-20 12:13 J -27328535.13 -27328534.99 -27328534.84 0.0269 0.0220
 Neptune -79534-04-14 22:32 J -27328266.82 -27328266.56 -27328266.31 0.0089 0.0018
 Neptune -79533-04-16 09:35 J -27327899.32 -27327899.10 -27327898.86 0.0089 0.0029
 Neptune -79532-04-18 13:54 J -27327532.12 -27327531.92 -27327531.72 0.0089 0.0056

Neptune -79531-04-21 04:32 J -27327164.45 -27327164.31 -27327164.13 0.0089 0.0067
 Jupiter -79530-04-01 11:59 J -27326819.12 -27326819.00 -27326818.87 0.0533 0.0452
 Saturn -79525-12-06 21:49 J -27324742.77 -27324742.59 -27324742.40 0.0296 0.0190
 Saturn -79524-12-21 20:37 J -27324362.88 -27324362.64 -27324362.39 0.0295 0.0065
 Saturn -79522-01-05 09:20 J -27323983.35 -27323983.11 -27323982.85 0.0294 0.0062
 Saturn -79521-01-19 12:56 J -27323604.16 -27323603.96 -27323603.77 0.0292 0.0179
 Saturn -79520-02-01 08:08 J -27323225.21 -27323225.16 -27323225.12 0.0289 0.0284
 Mars -79519-06-13 15:20 J -27322728.01 -27322727.86 -27322727.71 0.1599 0.0819
 Uranus -79516-12-23 23:44 J -27321438.68 -27321438.51 -27321438.33 0.0131 0.0097
 Uranus -79515-12-27 21:06 J -27321069.79 -27321069.62 -27321069.41 0.0131 0.0087
 Uranus -79513-01-01 08:08 J -27320700.39 -27320700.16 -27320699.91 0.0131 0.0050
 Jupiter -79513-09-13 19:25 J -27320443.88 -27320443.69 -27320443.49 0.0491 0.0299
 Uranus -79512-01-04 05:01 J -27320331.52 -27320331.29 -27320331.03 0.0131 0.0036
 Uranus -79511-01-08 15:35 J -27319962.11 -27319961.85 -27319961.59 0.0131 0.0007
 Saturn -79511-05-19 01:54 J -27319831.46 -27319831.42 -27319831.35 0.0265 0.0256
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 Saturn -79510-05-30 15:20 J -27319455.02 -27319454.86 -27319454.67 0.0265 0.0173
 Uranus -79509-01-16 21:20 J -27319223.85 -27319223.61 -27319223.35 0.0131 0.0035
 Saturn -79509-06-10 01:11 J -27319078.69 -27319078.45 -27319078.21 0.0265 0.0073
 Uranus -79508-01-19 17:30 J -27318854.97 -27318854.77 -27318854.55 0.0131 0.0070
 Saturn -79508-06-21 11:01 J -27318702.29 -27318702.04 -27318701.79 0.0266 0.0024
 Uranus -79507-01-24 02:23 J -27318485.58 -27318485.40 -27318485.18 0.0132 0.0081
 Saturn -79507-07-03 07:40 J -27318325.40 -27318325.18 -27318324.96 0.0267 0.0110
 Uranus -79506-01-27 22:18 J -27318116.67 -27318116.57 -27318116.45 0.0132 0.0118
 Saturn -79506-07-15 15:20 J -27317948.03 -27317947.86 -27317947.69 0.0269 0.0187
 Uranus -79505-02-01 06:56 J -27317747.24 -27317747.21 -27317747.13 0.0132 0.0129
 Saturn -79505-07-27 02:23 J -27317570.43 -27317570.40 -27317570.33 0.0271 0.0265
 Jupiter -79501-09-18 13:54 J -27316056.14 -27316055.92 -27316055.69 0.0492 0.0118
 Saturn -79496-11-30 12:42 J -27314157.11 -27314156.97 -27314156.82 0.0296 0.0239
 Saturn -79495-12-15 15:20 J -27313777.08 -27313776.86 -27313776.64 0.0296 0.0114

Saturn -79494-12-30 14:08 J -27313397.15 -27313396.91 -27313396.68 0.0295 0.0015
 Saturn -79492-01-13 04:18 J -27313017.52 -27313017.32 -27313017.11 0.0294 0.0138
 Saturn -79491-01-27 05:44 J -27312638.37 -27312638.26 -27312638.12 0.0291 0.0248
 Jupiter -79489-09-23 05:44 J -27311668.51 -27311668.26 -27311668.01 0.0493 0.0073
 Jupiter -79483-03-16 20:08 J -27309667.81 -27309667.66 -27309667.51 0.0536 0.0400
 Saturn -79481-05-25 01:25 J -27308867.59 -27308867.44 -27308867.29 0.0264 0.0210
 Saturn -79480-06-05 10:04 J -27308491.28 -27308491.08 -27308490.86 0.0264 0.0117
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 Saturn -79478-06-28 20:37 J -27307737.88 -27307737.64 -27307737.39 0.0266 0.0076
 Saturn -79477-07-09 14:23 J -27307361.11 -27307360.90 -27307360.69 0.0267 0.0155
 Jupiter -79477-09-27 16:18 J -27307280.99 -27307280.82 -27307280.63 0.0494 0.0316
 Saturn -79476-07-21 20:08 J -27306983.77 -27306983.66 -27306983.53 0.0270 0.0233
 Uranus -79474-06-12 19:11 J -27306292.75 -27306292.70 -27306292.62 0.0148 0.0143
 Uranus -79473-06-16 19:40 J -27305922.81 -27305922.68 -27305922.54 0.0148 0.0122
 Mars -79472-06-07 20:23 J -27305566.80 -27305566.65 -27305566.50 0.1609 0.0877
 Uranus -79472-06-22 04:47 J -27305552.51 -27305552.30 -27305552.08 0.0148 0.0085
 Jupiter -79471-03-22 00:13 J -27305279.71 -27305279.49 -27305279.28 0.0535 0.0095
 Uranus -79471-06-27 04:18 J -27305182.55 -27305182.32 -27305182.08 0.0148 0.0046
 Uranus -79470-07-02 16:47 J -27304812.05 -27304811.80 -27304811.54 0.0148 0.0024
 Uranus -79469-07-06 16:04 J -27304442.07 -27304441.83 -27304441.57 0.0148 0.0027
 Uranus -79468-07-12 05:59 J -27304071.48 -27304071.25 -27304071.01 0.0148 0.0052
 Uranus -79467-07-17 06:13 J -27303701.43 -27303701.24 -27303701.02 0.0147 0.0089
 Saturn -79467-11-24 11:01 J -27303571.07 -27303571.04 -27303570.98 0.0296 0.0291
 Uranus -79466-07-22 19:25 J -27303330.79 -27303330.69 -27303330.56 0.0147 0.0131
 Saturn -79466-12-09 13:25 J -27303191.14 -27303190.94 -27303190.72 0.0296 0.0171
 Saturn -79465-12-23 09:06 J -27302811.37 -27302811.12 -27302810.86 0.0295 0.0043
 Saturn -79463-01-06 21:20 J -27302431.85 -27302431.61 -27302431.37 0.0294 0.0083
 Saturn -79462-01-21 02:37 J -27302052.55 -27302052.39 -27302052.20 0.0292 0.0201
 Jupiter -79459-03-26 19:25 J -27300891.90 -27300891.69 -27300891.47 0.0534 0.0197
 Neptune -79458-10-03 14:37 J -27300335.94 -27300335.89 -27300335.85 0.0088 0.0087

Neptune -79457-10-05 11:44 J -27299968.12 -27299968.01 -27299967.85 0.0088 0.0077
 Neptune -79456-10-07 19:25 J -27299600.89 -27299600.69 -27299600.45 0.0088 0.0048
 Neptune -79455-10-10 16:18 J -27299233.06 -27299232.82 -27299232.57 0.0088 0.0037
 Neptune -79454-10-13 02:08 J -27298865.67 -27298865.41 -27298865.15 0.0088 0.0008
 Neptune -79453-10-14 19:40 J -27298497.96 -27298497.68 -27298497.41 0.0088 0.0002
 Saturn -79452-05-20 12:13 J -27298280.07 -27298279.99 -27298279.89 0.0265 0.0245
 Neptune -79452-10-17 09:35 J -27298130.33 -27298130.10 -27298129.85 0.0088 0.0031
 Saturn -79451-05-31 21:20 J -27297903.81 -27297903.61 -27297903.41 0.0265 0.0159
 Neptune -79451-10-19 22:18 J -27297762.79 -27297762.57 -27297762.31 0.0088 0.0042
 Saturn -79450-06-12 01:54 J -27297527.66 -27297527.42 -27297527.17 0.0265 0.0056
 Neptune -79450-10-22 16:18 J -27297394.95 -27297394.82 -27297394.64 0.0088 0.0070
 Saturn -79449-06-22 16:18 J -27297151.06 -27297150.82 -27297150.58 0.0266 0.0039
 Neptune -79449-10-24 00:42 J -27297027.55 -27297027.47 -27297027.33 0.0088 0.0081
 Saturn -79448-07-04 17:01 J -27296774.00 -27296773.79 -27296773.58 0.0267 0.0124
 Jupiter -79447-03-31 15:35 J -27296503.98 -27296503.85 -27296503.71 0.0533 0.0418
 Saturn -79447-07-16 21:20 J -27296396.78 -27296396.61 -27296396.44 0.0269 0.0200
 Mars -79440-06-15 10:04 J -27293871.21 -27293871.08 -27293870.94 0.1596 0.1071
 Saturn -79437-12-02 03:35 J -27292605.50 -27292605.35 -27292605.19 0.0296 0.0224
 Saturn -79436-12-17 08:23 J -27292225.37 -27292225.15 -27292224.92 0.0296 0.0097
 Saturn -79434-01-01 06:28 J -27291845.47 -27291845.23 -27291844.99 0.0295 0.0033
 Saturn -79433-01-15 17:01 J -27291465.99 -27291465.79 -27291465.57 0.0294 0.0157
 Uranus -79433-12-20 00:42 J -27291126.56 -27291126.47 -27291126.36 0.0131 0.0120
 Saturn -79432-01-28 14:37 J -27291086.99 -27291086.89 -27291086.79 0.0291 0.0266
 Mars -79432-12-16 03:06 J -27290765.59 -27290765.37 -27290765.14 0.1937 0.0349
 Uranus -79432-12-24 11:44 J -27290757.13 -27290757.01 -27290756.84 0.0131 0.0109
 Uranus -79431-12-28 10:04 J -27290388.28 -27290388.08 -27290387.86 0.0131 0.0071
 Jupiter -79430-09-14 05:30 J -27290128.45 -27290128.27 -27290128.09 0.0491 0.0316
 Uranus -79429-01-01 20:37 J -27290018.87 -27290018.64 -27290018.40 0.0131 0.0058
 Uranus -79428-01-04 17:59 J -27289649.99 -27289649.75 -27289649.50 0.0131 0.0024
 Uranus -79427-01-09 03:20 J -27289280.62 -27289280.36 -27289280.10 0.0131 0.0005

Uranus	-79426-01-12 23:59 J	-27288911.75	-27288911.50	-27288911.25	0.0131	0.0018
Uranus	-79425-01-17 08:37 J	-27288542.36	-27288542.14	-27288541.88	0.0131	0.0049
Uranus	-79424-01-20 05:16 J	-27288173.49	-27288173.28	-27288173.05	0.0131	0.0062
Uranus	-79423-01-24 13:40 J	-27287804.08	-27287803.93	-27287803.74	0.0131	0.0099
Uranus	-79422-01-28 10:18 J	-27287435.20	-27287435.07	-27287434.93	0.0132	0.0109
Saturn	-79422-05-27 04:47 J	-27287316.44	-27287316.30	-27287316.13	0.0264	0.0199
Saturn	-79421-06-06 18:42 J	-27286939.93	-27286939.72	-27286939.49	0.0264	0.0101
Saturn	-79420-06-18 08:23 J	-27286563.40	-27286563.15	-27286562.90	0.0265	0.0001
Saturn	-79419-06-29 20:37 J	-27286186.87	-27286186.64	-27286186.39	0.0266	0.0089
Saturn	-79418-07-11 18:13 J	-27285809.92	-27285809.74	-27285809.54	0.0267	0.0170
Jupiter	-79418-09-18 18:28 J	-27285740.97	-27285740.73	-27285740.49	0.0492	0.0138
Saturn	-79417-07-23 05:44 J	-27285432.34	-27285432.26	-27285432.15	0.0270	0.0246
Saturn	-79408-11-25 21:06 J	-27282019.70	-27282019.62	-27282019.51	0.0296	0.0275
Saturn	-79407-12-10 22:04 J	-27281639.79	-27281639.58	-27281639.36	0.0296	0.0154
Jupiter	-79406-09-23 06:13 J	-27281353.47	-27281353.24	-27281353.01	0.0492	0.0054
Saturn	-79406-12-25 18:56 J	-27281259.96	-27281259.71	-27281259.46	0.0296	0.0025
Saturn	-79404-01-08 10:32 J	-27280880.28	-27280880.06	-27280879.84	0.0294	0.0103
Saturn	-79403-01-22 18:42 J	-27280500.87	-27280500.72	-27280500.56	0.0292	0.0221
Jupiter	-79400-03-16 08:08 J	-27279352.30	-27279352.16	-27279352.02	0.0536	0.0420
Jupiter	-79394-09-28 01:11 J	-27276965.63	-27276965.45	-27276965.25	0.0494	0.0304
Saturn	-79393-05-21 17:01 J	-27276728.89	-27276728.79	-27276728.66	0.0265	0.0234
Mars	-79393-06-09 20:37 J	-27276709.84	-27276709.64	-27276709.45	0.1607	0.0150
Saturn	-79392-06-01 20:23 J	-27276352.86	-27276352.65	-27276352.44	0.0264	0.0143
Saturn	-79391-06-13 04:47 J	-27275976.53	-27275976.30	-27275976.06	0.0265	0.0042
Saturn	-79390-06-24 23:59 J	-27275599.73	-27275599.50	-27275599.27	0.0265	0.0052
Uranus	-79389-06-17 05:16 J	-27275241.44	-27275241.28	-27275241.12	0.0148	0.0112
Saturn	-79389-07-05 21:35 J	-27275222.80	-27275222.60	-27275222.38	0.0267	0.0138
Jupiter	-79388-03-21 02:23 J	-27274964.63	-27274964.40	-27274964.17	0.0535	0.0114
Uranus	-79388-06-22 12:56 J	-27274871.16	-27274870.96	-27274870.73	0.0148	0.0083
Saturn	-79388-07-17 20:23 J	-27274845.80	-27274845.65	-27274845.49	0.0269	0.0211

Uranus -79387-06-27 13:25 J -27274501.16 -27274500.94 -27274500.70 0.0148 0.0054
 Uranus -79386-07-03 01:25 J -27274130.69 -27274130.44 -27274130.18 0.0148 0.0006
 Uranus -79385-07-07 01:25 J -27273760.69 -27273760.44 -27273760.18 0.0148 0.0016
 Uranus -79384-07-12 15:49 J -27273390.07 -27273389.84 -27273389.60 0.0148 0.0063
 Uranus -79383-07-17 16:04 J -27273020.02 -27273019.83 -27273019.62 0.0147 0.0096
 Pluto -79383-08-05 17:30 J -27273000.92 -27273000.77 -27273000.58 0.0066 0.0049
 Uranus -79382-07-23 06:13 J -27272649.36 -27272649.24 -27272649.08 0.0147 0.0124
 Pluto -79382-08-07 04:04 J -27272634.47 -27272634.33 -27272634.16 0.0066 0.0054
 Saturn -79378-12-04 16:47 J -27271053.96 -27271053.80 -27271053.62 0.0296 0.0211
 Saturn -79377-12-18 20:23 J -27270673.89 -27270673.65 -27270673.41 0.0296 0.0082
 Jupiter -79376-03-25 18:56 J -27270576.92 -27270576.71 -27270576.50 0.0534 0.0155
 Saturn -79375-01-02 14:37 J -27270294.13 -27270293.89 -27270293.63 0.0295 0.0051
 Neptune -79375-04-03 14:52 J -27270202.92 -27270202.88 -27270202.80 0.0089 0.0086
 Saturn -79374-01-16 21:35 J -27269914.80 -27269914.60 -27269914.40 0.0294 0.0176
 Neptune -79374-04-05 18:13 J -27269835.87 -27269835.74 -27269835.58 0.0089 0.0070
 Saturn -79373-01-30 18:56 J -27269535.74 -27269535.71 -27269535.66 0.0291 0.0286
 Neptune -79373-04-07 06:56 J -27269468.42 -27269468.21 -27269467.99 0.0089 0.0049
 Neptune -79372-04-09 14:08 J -27269101.13 -27269100.91 -27269100.69 0.0089 0.0033
 Neptune -79371-04-11 21:35 J -27268733.85 -27268733.60 -27268733.34 0.0089 0.0013
 Neptune -79370-04-14 10:04 J -27268366.32 -27268366.08 -27268365.83 0.0089 0.0004
 Neptune -79369-04-15 13:40 J -27267999.17 -27267998.93 -27267998.68 0.0089 0.0025
 Neptune -79368-04-18 05:01 J -27267631.50 -27267631.29 -27267631.06 0.0089 0.0042
 Neptune -79367-04-20 06:56 J -27267264.36 -27267264.21 -27267264.01 0.0089 0.0063
 Neptune -79366-04-22 22:32 J -27266896.66 -27266896.56 -27266896.42 0.0089 0.0078
 Jupiter -79364-03-30 17:30 J -27266188.94 -27266188.77 -27266188.60 0.0533 0.0366
 Saturn -79363-05-28 11:59 J -27265765.16 -27265765.00 -27265764.83 0.0264 0.0184
 Saturn -79362-06-08 23:16 J -27265388.76 -27265388.53 -27265388.30 0.0264 0.0088
 Saturn -79361-06-19 06:28 J -27265012.48 -27265012.23 -27265011.98 0.0264 0.0012
 Saturn -79360-06-30 20:52 J -27264635.85 -27264635.63 -27264635.39 0.0266 0.0101
 Saturn -79359-07-13 00:13 J -27264258.65 -27264258.49 -27264258.30 0.0267 0.0181

Saturn -79358-07-25 10:47 J -27263881.11 -27263881.05 -27263880.96 0.0270 0.0256
 Mars -79353-12-20 21:20 J -27261905.69 -27261905.61 -27261905.54 0.1944 0.1816
 Saturn -79349-11-27 00:28 J -27260468.58 -27260468.48 -27260468.35 0.0296 0.0262
 Uranus -79349-12-20 14:08 J -27260444.94 -27260444.91 -27260444.84 0.0131 0.0129
 Saturn -79348-12-12 03:49 J -27260088.54 -27260088.34 -27260088.11 0.0296 0.0140
 Uranus -79348-12-25 00:42 J -27260075.65 -27260075.47 -27260075.28 0.0131 0.0093
 Jupiter -79347-09-13 10:47 J -27259813.22 -27259813.05 -27259812.86 0.0491 0.0330
 Saturn -79347-12-27 04:18 J -27259708.56 -27259708.32 -27259708.08 0.0296 0.0008
 Uranus -79347-12-28 23:16 J -27259706.71 -27259706.53 -27259706.32 0.0131 0.0082
 Uranus -79345-01-02 09:06 J -27259337.36 -27259337.12 -27259336.87 0.0131 0.0044
 Saturn -79345-01-10 22:18 J -27259328.79 -27259328.57 -27259328.36 0.0294 0.0121
 Uranus -79344-01-05 07:11 J -27258968.44 -27258968.20 -27258967.95 0.0131 0.0029
 Saturn -79344-01-24 05:01 J -27258949.42 -27258949.29 -27258949.14 0.0292 0.0238
 Uranus -79343-01-09 16:32 J -27258599.07 -27258598.81 -27258598.55 0.0131 0.0002
 Uranus -79342-01-13 13:40 J -27258230.16 -27258229.93 -27258229.68 0.0131 0.0025
 Uranus -79341-01-17 22:18 J -27257860.80 -27257860.57 -27257860.32 0.0131 0.0043
 Uranus -79340-01-20 18:56 J -27257491.89 -27257491.71 -27257491.49 0.0131 0.0078
 Uranus -79339-01-25 02:37 J -27257122.56 -27257122.39 -27257122.19 0.0131 0.0090
 Uranus -79338-01-28 23:01 J -27256753.58 -27256753.54 -27256753.46 0.0132 0.0128
 Jupiter -79335-09-17 21:06 J -27255425.84 -27255425.62 -27255425.40 0.0492 0.0161
 Saturn -79334-05-23 14:37 J -27255178.01 -27255177.89 -27255177.74 0.0264 0.0220
 Saturn -79333-06-02 19:11 J -27254801.91 -27254801.70 -27254801.49 0.0264 0.0129
 Saturn -79332-06-14 09:35 J -27254425.33 -27254425.10 -27254424.86 0.0264 0.0029
 Saturn -79331-06-26 02:37 J -27254048.63 -27254048.39 -27254048.15 0.0265 0.0064
 Saturn -79330-07-07 18:28 J -27253671.94 -27253671.73 -27253671.51 0.0267 0.0145
 Saturn -79329-07-18 18:28 J -27253294.86 -27253294.73 -27253294.58 0.0269 0.0222
 Jupiter -79323-09-22 18:42 J -27251037.96 -27251037.72 -27251037.47 0.0492 0.0045
 Saturn -79319-12-05 22:18 J -27249502.75 -27249502.57 -27249502.37 0.0297 0.0197
 Saturn -79318-12-20 23:01 J -27249122.79 -27249122.54 -27249122.29 0.0297 0.0065
 Jupiter -79317-03-15 04:32 J -27249037.43 -27249037.31 -27249037.17 0.0536 0.0450

Saturn -79316-01-03 15:35 J -27248743.09 -27248742.85 -27248742.60 0.0296 0.0067
 Saturn -79315-01-18 00:13 J -27248363.67 -27248363.49 -27248363.30 0.0294 0.0192
 Mars -79314-06-13 03:06 J -27247852.56 -27247852.37 -27247852.17 0.1604 0.0320
 Jupiter -79311-09-27 04:04 J -27246650.51 -27246650.33 -27246650.13 0.0493 0.0302
 Uranus -79306-06-13 12:28 J -27244930.05 -27244929.98 -27244929.90 0.0148 0.0141
 Jupiter -79305-03-20 03:06 J -27244649.58 -27244649.37 -27244649.16 0.0535 0.0148
 Saturn -79305-05-18 04:47 J -27244590.35 -27244590.30 -27244590.23 0.0265 0.0255
 Uranus -79305-06-17 15:06 J -27244559.99 -27244559.87 -27244559.72 0.0148 0.0121
 Saturn -79304-05-29 15:06 J -27244214.04 -27244213.87 -27244213.67 0.0264 0.0171
 Uranus -79304-06-22 22:18 J -27244189.78 -27244189.57 -27244189.34 0.0148 0.0081
 Saturn -79303-06-09 20:08 J -27243837.90 -27243837.66 -27243837.41 0.0264 0.0072
 Uranus -79303-06-27 23:59 J -27243819.72 -27243819.50 -27243819.25 0.0148 0.0043
 Saturn -79302-06-21 04:32 J -27243461.55 -27243461.31 -27243461.07 0.0264 0.0025
 Uranus -79302-07-03 11:30 J -27243449.28 -27243449.02 -27243448.76 0.0148 0.0018
 Saturn -79301-07-02 00:56 J -27243084.67 -27243084.46 -27243084.24 0.0265 0.0109
 Uranus -79301-07-07 11:44 J -27243079.25 -27243079.01 -27243078.76 0.0148 0.0034
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 Saturn -79300-07-14 03:49 J -27242707.51 -27242707.34 -27242707.16 0.0267 0.0189
 Uranus -79299-07-18 01:25 J -27242338.61 -27242338.44 -27242338.23 0.0148 0.0099
 Saturn -79299-07-26 08:37 J -27242330.18 -27242330.14 -27242330.10 0.0270 0.0266
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 Pluto -79295-02-11 00:13 J -27241034.71 -27241034.49 -27241034.24 0.0078 0.0037
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 Neptune -79293-10-04 07:11 J -27240068.26 -27240068.20 -27240068.07 0.0088 0.0083
 Neptune -79292-10-07 03:20 J -27239700.53 -27239700.36 -27239700.14 0.0088 0.0061
 Neptune -79291-10-09 14:52 J -27239333.09 -27239332.88 -27239332.64 0.0088 0.0044
 Neptune -79290-10-12 06:28 J -27238965.49 -27238965.23 -27238964.95 0.0088 0.0022
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 Neptune -79289-10-13 22:04 J -27238597.83 -27238597.58 -27238597.32 0.0088 0.0004
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Neptune -79288-10-16 08:52 J -27238230.39 -27238230.13 -27238229.85 0.0088 0.0018
 Saturn -79288-12-28 12:56 J -27238157.20 -27238156.96 -27238156.72 0.0296 0.0009
 Neptune -79287-10-19 04:18 J -27237862.54 -27237862.32 -27237862.06 0.0088 0.0037
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 Neptune -79285-10-23 10:04 J -27237127.20 -27237127.08 -27237126.91 0.0088 0.0075
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 Saturn -79275-05-24 11:59 J -27233627.14 -27233627.00 -27233626.85 0.0264 0.0209
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 Uranus -79260-01-05 21:35 J -27228286.85 -27228286.60 -27228286.35 0.0131 0.0018
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 Uranus -79257-01-18 11:16 J -27227179.27 -27227179.03 -27227178.80 0.0131 0.0055
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Uranus -79254-01-29 12:56 J -27226072.05 -27226071.96 -27226071.84 0.0132 0.0119
 Jupiter -79252-09-17 14:23 J -27225110.13 -27225109.90 -27225109.67 0.0492 0.0171
 Saturn -79246-05-20 06:56 J -27223039.28 -27223039.21 -27223039.12 0.0264 0.0248
 Saturn -79245-05-30 10:18 J -27222663.26 -27222663.07 -27222662.85 0.0264 0.0157
 Saturn -79244-06-10 14:52 J -27222287.12 -27222286.88 -27222286.64 0.0264 0.0058
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 Mars -79235-06-15 07:54 J -27218995.27 -27218995.17 -27218995.06 0.1601 0.1308
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 Saturn -79231-11-30 10:18 J -27217366.21 -27217366.07 -27217365.92 0.0297 0.0237
 Saturn -79230-12-15 16:32 J -27216986.04 -27216985.81 -27216985.58 0.0297 0.0108
 Saturn -79229-12-29 14:52 J -27216606.13 -27216605.88 -27216605.63 0.0296 0.0024
 Jupiter -79228-09-26 19:54 J -27216334.85 -27216334.67 -27216334.48 0.0493 0.0300
 Saturn -79227-01-13 02:37 J -27216226.60 -27216226.39 -27216226.17 0.0294 0.0153
 Saturn -79226-01-27 03:35 J -27215847.43 -27215847.35 -27215847.25 0.0292 0.0270
 Jupiter -79222-03-20 14:52 J -27214334.10 -27214333.88 -27214333.65 0.0536 0.0150
 Uranus -79221-06-18 02:23 J -27213878.56 -27213878.40 -27213878.23 0.0148 0.0109
 Uranus -79220-06-23 07:54 J -27213508.37 -27213508.17 -27213507.93 0.0148 0.0081
 Uranus -79219-06-28 10:47 J -27213138.28 -27213138.05 -27213137.81 0.0148 0.0048
 Uranus -79218-07-03 21:06 J -27212767.88 -27212767.62 -27212767.36 0.0148 0.0000
 Uranus -79217-07-07 22:18 J -27212397.81 -27212397.57 -27212397.32 0.0148 0.0022
 Saturn -79216-05-25 12:56 J -27212076.10 -27212075.96 -27212075.80 0.0264 0.0199
 Uranus -79216-07-13 11:59 J -27212027.22 -27212027.00 -27212026.77 0.0148 0.0071
 Saturn -79215-06-06 00:28 J -27211699.71 -27211699.48 -27211699.26 0.0264 0.0100
 Uranus -79215-07-18 11:59 J -27211657.16 -27211657.00 -27211656.80 0.0148 0.0104
 Saturn -79214-06-17 07:11 J -27211323.45 -27211323.20 -27211322.94 0.0264 0.0006
 Uranus -79214-07-24 02:52 J -27211286.47 -27211286.38 -27211286.25 0.0147 0.0133
 Saturn -79213-06-27 16:18 J -27210947.06 -27210946.82 -27210946.58 0.0265 0.0080

Saturn -79212-07-09 14:23 J -27210570.09 -27210569.90 -27210569.70 0.0266 0.0160
 Saturn -79211-07-21 21:20 J -27210192.71 -27210192.61 -27210192.50 0.0268 0.0240
 Jupiter -79210-03-25 08:52 J -27209946.35 -27209946.13 -27209945.91 0.0535 0.0112
 Neptune -79210-04-05 05:30 J -27209935.35 -27209935.27 -27209935.16 0.0089 0.0082
 Neptune -79209-04-06 13:54 J -27209568.08 -27209567.92 -27209567.71 0.0089 0.0056
 Neptune -79208-04-08 21:20 J -27209200.82 -27209200.61 -27209200.38 0.0089 0.0045
 Neptune -79207-04-11 10:18 J -27208833.30 -27208833.07 -27208832.82 0.0089 0.0018
 Neptune -79206-04-13 13:11 J -27208466.19 -27208465.95 -27208465.69 0.0089 0.0009
 Neptune -79205-04-15 04:47 J -27208098.54 -27208098.30 -27208098.05 0.0089 0.0019
 Neptune -79204-04-17 07:11 J -27207731.43 -27207731.20 -27207730.97 0.0089 0.0028
 Neptune -79203-04-19 21:06 J -27207363.80 -27207363.62 -27207363.40 0.0089 0.0056
 Neptune -79202-04-22 02:08 J -27206996.55 -27206996.41 -27206996.23 0.0089 0.0066
 Saturn -79202-11-23 09:06 J -27206781.14 -27206781.12 -27206781.09 0.0296 0.0294
 Saturn -79201-12-07 14:23 J -27206401.09 -27206400.90 -27206400.69 0.0297 0.0171
 Saturn -79200-12-22 18:28 J -27206020.97 -27206020.73 -27206020.49 0.0297 0.0036
 Saturn -79198-01-06 16:47 J -27205641.02 -27205640.80 -27205640.57 0.0296 0.0097
 Jupiter -79198-03-30 09:06 J -27205558.30 -27205558.12 -27205557.94 0.0533 0.0318
 Saturn -79197-01-21 05:44 J -27205261.40 -27205261.26 -27205261.09 0.0294 0.0221
 Mars -79188-06-09 15:06 J -27201834.04 -27201833.87 -27201833.70 0.1612 0.0451
 Saturn -79187-05-21 03:06 J -27201488.47 -27201488.37 -27201488.25 0.0264 0.0238
 Saturn -79186-06-01 04:04 J -27201112.53 -27201112.33 -27201112.12 0.0264 0.0142
 Saturn -79185-06-11 14:37 J -27200736.12 -27200735.89 -27200735.66 0.0263 0.0046
 Saturn -79184-06-23 06:42 J -27200359.45 -27200359.22 -27200358.98 0.0264 0.0045
 Saturn -79183-07-04 21:06 J -27199982.84 -27199982.62 -27199982.39 0.0265 0.0123
 Saturn -79182-07-16 15:49 J -27199606.00 -27199605.84 -27199605.67 0.0267 0.0200
 Jupiter -79181-09-12 09:49 J -27199182.25 -27199182.09 -27199181.91 0.0491 0.0353
 Uranus -79181-12-21 18:13 J -27199081.80 -27199081.74 -27199081.65 0.0131 0.0125
 Uranus -79180-12-26 03:06 J -27198712.55 -27198712.37 -27198712.16 0.0131 0.0089
 Uranus -79179-12-30 03:49 J -27198343.53 -27198343.34 -27198343.13 0.0131 0.0076
 Uranus -79177-01-03 12:13 J -27197974.23 -27197973.99 -27197973.73 0.0131 0.0038

Uranus	-79176-01-06 11:59 J	-27197605.24	-27197605.00	-27197604.76	0.0131	0.0022
Uranus	-79175-01-10 19:54 J	-27197235.93	-27197235.67	-27197235.41	0.0131	0.0008
Uranus	-79174-01-14 18:42 J	-27196866.95	-27196866.72	-27196866.48	0.0131	0.0033
Uranus	-79173-01-19 01:25 J	-27196497.66	-27196497.44	-27196497.19	0.0131	0.0053
Uranus	-79172-01-21 23:30 J	-27196128.69	-27196128.52	-27196128.32	0.0131	0.0087
Saturn	-79172-12-01 10:04 J	-27195815.24	-27195815.08	-27195814.92	0.0297	0.0226
Uranus	-79171-01-26 05:44 J	-27195759.41	-27195759.26	-27195759.08	0.0131	0.0100
Saturn	-79171-12-16 12:28 J	-27195435.22	-27195434.98	-27195434.74	0.0297	0.0093
Saturn	-79170-12-31 08:08 J	-27195055.41	-27195055.16	-27195054.91	0.0296	0.0042
Jupiter	-79169-09-16 17:16 J	-27194795.01	-27194794.78	-27194794.56	0.0491	0.0183
Saturn	-79168-01-13 20:23 J	-27194675.84	-27194675.65	-27194675.44	0.0295	0.0170
Saturn	-79167-01-28 01:40 J	-27194296.48	-27194296.43	-27194296.37	0.0292	0.0283
Saturn	-79157-05-26 14:23 J	-27190525.06	-27190524.90	-27190524.73	0.0264	0.0188
Jupiter	-79157-09-21 14:08 J	-27190407.14	-27190406.91	-27190406.67	0.0492	0.0040
Saturn	-79156-06-06 19:25 J	-27190148.92	-27190148.69	-27190148.45	0.0263	0.0088
Mars	-79156-06-17 04:32 J	-27190138.32	-27190138.31	-27190138.30	0.1599	0.1591
Saturn	-79155-06-18 00:13 J	-27189772.74	-27189772.49	-27189772.24	0.0264	0.0007
Saturn	-79154-06-29 15:35 J	-27189396.08	-27189395.85	-27189395.63	0.0265	0.0089
Saturn	-79153-07-10 15:35 J	-27189019.03	-27189018.85	-27189018.65	0.0266	0.0165
Saturn	-79152-07-22 17:30 J	-27188641.86	-27188641.77	-27188641.67	0.0268	0.0247
Jupiter	-79151-03-15 02:23 J	-27188406.52	-27188406.40	-27188406.29	0.0536	0.0463
Mars	-79148-12-15 02:08 J	-27187035.58	-27187035.41	-27187035.23	0.1930	0.0650
Jupiter	-79145-09-26 01:25 J	-27186019.64	-27186019.44	-27186019.24	0.0493	0.0293
Saturn	-79143-11-24 05:16 J	-27185230.33	-27185230.28	-27185230.21	0.0296	0.0286
Saturn	-79142-12-09 14:23 J	-27184850.10	-27184849.90	-27184849.70	0.0297	0.0158
Saturn	-79141-12-23 19:54 J	-27184469.91	-27184469.67	-27184469.43	0.0297	0.0021
Saturn	-79139-01-07 17:01 J	-27184090.01	-27184089.79	-27184089.56	0.0296	0.0113
Jupiter	-79139-03-19 16:32 J	-27184019.02	-27184018.81	-27184018.60	0.0535	0.0164
Saturn	-79138-01-22 02:37 J	-27183710.54	-27183710.39	-27183710.24	0.0294	0.0234
Uranus	-79138-06-14 12:56 J	-27183567.03	-27183566.96	-27183566.85	0.0148	0.0138

Uranus -79137-06-18 18:28 J -27183196.87 -27183196.73 -27183196.57 0.0148 0.0117
 Uranus -79136-06-23 23:30 J -27182826.74 -27182826.52 -27182826.29 0.0148 0.0075
 Pluto -79136-08-06 22:18 J -27182782.75 -27182782.57 -27182782.33 0.0066 0.0038
 Uranus -79135-06-29 03:06 J -27182456.60 -27182456.37 -27182456.13 0.0148 0.0037
 Pluto -79135-08-08 11:44 J -27182416.12 -27182416.01 -27182415.83 0.0066 0.0056
 Uranus -79134-07-04 12:42 J -27182086.23 -27182085.97 -27182085.71 0.0148 0.0010
 Uranus -79133-07-08 14:23 J -27181716.14 -27181715.90 -27181715.66 0.0148 0.0042
 Uranus -79132-07-14 02:52 J -27181345.60 -27181345.38 -27181345.14 0.0148 0.0068
 Uranus -79131-07-19 03:06 J -27180975.53 -27180975.37 -27180975.19 0.0148 0.0109
 Neptune -79129-10-03 13:11 J -27180168.00 -27180167.95 -27180167.87 0.0088 0.0086
 Saturn -79128-05-21 19:40 J -27179937.79 -27179937.68 -27179937.55 0.0264 0.0228
 Neptune -79128-10-06 02:23 J -27179800.54 -27179800.40 -27179800.27 0.0088 0.0075
 Jupiter -79127-03-24 20:08 J -27179630.89 -27179630.66 -27179630.44 0.0534 0.0083
 Saturn -79127-06-02 02:52 J -27179561.58 -27179561.38 -27179561.17 0.0264 0.0133
 Neptune -79127-10-08 15:35 J -27179433.06 -27179432.85 -27179432.60 0.0088 0.0048
 Saturn -79126-06-13 16:04 J -27179185.06 -27179184.83 -27179184.59 0.0263 0.0035
 Neptune -79126-10-11 09:35 J -27179065.32 -27179065.10 -27179064.85 0.0088 0.0037
 Saturn -79125-06-24 02:52 J -27178808.62 -27178808.38 -27178808.13 0.0264 0.0053
 Neptune -79125-10-12 19:25 J -27178697.96 -27178697.69 -27178697.41 0.0088 0.0009
 Saturn -79124-07-05 13:54 J -27178432.13 -27178431.92 -27178431.69 0.0265 0.0129
 Neptune -79124-10-15 16:04 J -27178330.09 -27178329.83 -27178329.56 0.0088 0.0003
 Saturn -79123-07-17 14:08 J -27178055.05 -27178054.91 -27178054.75 0.0267 0.0209
 Neptune -79123-10-17 23:30 J -27177962.77 -27177962.52 -27177962.27 0.0088 0.0030
 Neptune -79122-10-20 21:06 J -27177594.85 -27177594.62 -27177594.38 0.0088 0.0040
 Neptune -79121-10-22 04:32 J -27177227.45 -27177227.31 -27177227.12 0.0088 0.0069
 Neptune -79120-10-24 23:44 J -27176859.61 -27176859.51 -27176859.36 0.0088 0.0079
 Jupiter -79115-03-29 08:52 J -27175243.32 -27175243.13 -27175242.93 0.0534 0.0298
 Saturn -79113-12-02 04:18 J -27174264.49 -27174264.32 -27174264.13 0.0297 0.0212
 Saturn -79112-12-17 05:59 J -27173884.49 -27173884.25 -27173884.01 0.0297 0.0077
 Saturn -79110-01-01 04:04 J -27173504.57 -27173504.33 -27173504.09 0.0296 0.0059

Saturn -79109-01-15 20:08 J -27173124.83 -27173124.66 -27173124.47 0.0295 0.0187
 Mars -79109-06-11 08:52 J -27172977.30 -27172977.13 -27172976.95 0.1610 0.0313
 Saturn -79098-05-28 11:59 J -27168974.18 -27168974.00 -27168973.82 0.0264 0.0177
 Jupiter -79098-09-12 12:13 J -27168867.14 -27168866.99 -27168866.82 0.0491 0.0369
 Saturn -79097-06-07 12:56 J -27168598.20 -27168597.96 -27168597.72 0.0263 0.0075
 Uranus -79097-12-22 09:49 J -27168400.22 -27168400.09 -27168399.97 0.0131 0.0113
 Saturn -79096-06-18 23:16 J -27168221.77 -27168221.53 -27168221.30 0.0264 0.0016
 Uranus -79096-12-26 17:59 J -27168030.91 -27168030.75 -27168030.56 0.0131 0.0098
 Saturn -79095-06-30 17:30 J -27167844.99 -27167844.77 -27167844.54 0.0265 0.0096
 Uranus -79095-12-30 19:40 J -27167661.89 -27167661.68 -27167661.45 0.0131 0.0060
 Saturn -79094-07-12 12:13 J -27167468.17 -27167467.99 -27167467.79 0.0266 0.0173
 Uranus -79093-01-04 03:06 J -27167292.60 -27167292.37 -27167292.11 0.0131 0.0046
 Saturn -79093-07-23 10:18 J -27167091.14 -27167091.07 -27167090.99 0.0268 0.0255
 Uranus -79092-01-07 03:35 J -27166923.60 -27166923.35 -27166923.10 0.0131 0.0011
 Uranus -79091-01-11 10:04 J -27166554.34 -27166554.08 -27166553.82 0.0131 0.0009
 Uranus -79090-01-15 09:20 J -27166185.34 -27166185.11 -27166184.87 0.0131 0.0035
 Uranus -79089-01-19 15:06 J -27165816.08 -27165815.87 -27165815.63 0.0131 0.0065
 Uranus -79088-01-22 13:54 J -27165447.09 -27165446.92 -27165446.71 0.0131 0.0082
 Uranus -79087-01-26 19:40 J -27165077.78 -27165077.68 -27165077.55 0.0131 0.0118
 Uranus -79086-01-30 19:11 J -27164708.74 -27164708.70 -27164708.65 0.0132 0.0129
 Jupiter -79086-09-17 11:01 J -27164479.25 -27164479.04 -27164478.82 0.0491 0.0192
 Saturn -79084-11-25 07:11 J -27163679.28 -27163679.20 -27163679.10 0.0296 0.0274
 Saturn -79083-12-10 15:20 J -27163299.06 -27163298.86 -27163298.64 0.0297 0.0145
 Saturn -79082-12-25 17:44 J -27162919.01 -27162918.76 -27162918.51 0.0297 0.0008
 Saturn -79080-01-08 10:32 J -27162539.28 -27162539.06 -27162538.82 0.0296 0.0129
 Saturn -79079-01-22 17:59 J -27162159.86 -27162159.75 -27162159.61 0.0294 0.0251
 Jupiter -79074-09-21 20:37 J -27160091.89 -27160091.64 -27160091.39 0.0493 0.0041
 Saturn -79069-05-22 17:01 J -27158386.92 -27158386.79 -27158386.66 0.0264 0.0218
 Mars -79069-12-18 17:01 J -27158176.98 -27158176.79 -27158176.59 0.1936 0.0760
 Jupiter -79068-03-14 02:08 J -27158091.49 -27158091.41 -27158091.30 0.0536 0.0479

Saturn -79068-06-03 04:32 J -27158010.51 -27158010.31 -27158010.09 0.0264 0.0120
 Saturn -79067-06-14 13:11 J -27157634.20 -27157633.95 -27157633.70 0.0263 0.0024
 Saturn -79066-06-25 19:54 J -27157257.91 -27157257.67 -27157257.42 0.0264 0.0060
 Saturn -79065-07-06 12:42 J -27156881.17 -27156880.97 -27156880.76 0.0265 0.0138
 Saturn -79064-07-18 17:01 J -27156503.92 -27156503.79 -27156503.64 0.0267 0.0218
 Mars -79062-06-06 11:16 J -27155816.13 -27155816.03 -27155815.93 0.1623 0.1337
 Jupiter -79062-09-26 14:23 J -27155704.08 -27155703.90 -27155703.71 0.0493 0.0295
 Jupiter -79056-03-19 05:44 J -27153703.48 -27153703.26 -27153703.05 0.0536 0.0177
 Saturn -79054-12-03 23:16 J -27152713.70 -27152713.53 -27152713.33 0.0297 0.0200
 Uranus -79053-06-19 10:18 J -27152515.24 -27152515.07 -27152514.89 0.0148 0.0103
 Saturn -79053-12-18 04:32 J -27152333.54 -27152333.31 -27152333.07 0.0297 0.0065
 Uranus -79052-06-24 13:54 J -27152145.14 -27152144.92 -27152144.68 0.0148 0.0074
 Saturn -79051-01-02 05:59 J -27151953.47 -27151953.25 -27151953.02 0.0297 0.0075
 Uranus -79051-06-29 18:13 J -27151774.97 -27151774.74 -27151774.49 0.0148 0.0040
 Saturn -79050-01-16 23:30 J -27151573.69 -27151573.52 -27151573.34 0.0295 0.0204
 Uranus -79050-07-05 02:52 J -27151404.64 -27151404.38 -27151404.12 0.0148 0.0009
 Jupiter -79050-10-01 06:56 J -27151316.21 -27151316.21 -27151316.19 0.0494 0.0493
 Uranus -79049-07-09 05:16 J -27151034.52 -27151034.28 -27151034.03 0.0148 0.0033
 Pluto -79048-02-12 07:25 J -27150816.39 -27150816.19 -27150815.95 0.0078 0.0044
 Uranus -79048-07-14 17:44 J -27150663.97 -27150663.76 -27150663.54 0.0148 0.0082
 Uranus -79047-07-19 18:28 J -27150293.88 -27150293.73 -27150293.56 0.0148 0.0115
 Neptune -79046-04-04 12:42 J -27150035.01 -27150034.97 -27150034.89 0.0089 0.0086
 Uranus -79046-07-25 08:52 J -27149923.16 -27149923.13 -27149923.06 0.0147 0.0145
 Neptune -79045-04-05 18:42 J -27149667.88 -27149667.72 -27149667.55 0.0089 0.0067
 Jupiter -79044-03-23 21:20 J -27149315.84 -27149315.61 -27149315.38 0.0535 0.0066
 Neptune -79044-04-08 08:52 J -27149300.33 -27149300.13 -27149299.93 0.0089 0.0049
 Neptune -79043-04-10 11:16 J -27148933.25 -27148933.03 -27148932.78 0.0089 0.0032
 Neptune -79042-04-13 03:35 J -27148565.60 -27148565.35 -27148565.10 0.0089 0.0013
 Neptune -79041-04-14 05:59 J -27148198.49 -27148198.25 -27148198.00 0.0089 0.0005
 Neptune -79040-04-16 20:08 J -27147830.90 -27147830.66 -27147830.40 0.0089 0.0024

Saturn -79040-05-18 05:44 J -27147799.31 -27147799.26 -27147799.20 0.0265 0.0256
 Neptune -79039-04-19 02:08 J -27147463.61 -27147463.41 -27147463.18 0.0089 0.0042
 Saturn -79039-05-29 06:13 J -27147423.43 -27147423.24 -27147423.04 0.0264 0.0163
 Neptune -79038-04-21 11:44 J -27147096.20 -27147096.01 -27147095.82 0.0089 0.0060
 Saturn -79038-06-09 12:28 J -27147047.20 -27147046.98 -27147046.74 0.0263 0.0065
 Neptune -79037-04-22 22:04 J -27146728.67 -27146728.58 -27146728.44 0.0089 0.0078
 Saturn -79037-06-20 03:06 J -27146670.61 -27146670.37 -27146670.13 0.0264 0.0024
 Saturn -79036-07-01 17:16 J -27146294.01 -27146293.78 -27146293.55 0.0264 0.0105
 Saturn -79035-07-13 06:56 J -27145917.38 -27145917.21 -27145917.01 0.0266 0.0181
 Saturn -79034-07-25 09:06 J -27145540.13 -27145540.12 -27145540.10 0.0268 0.0267
 Jupiter -79032-03-29 02:08 J -27144927.59 -27144927.41 -27144927.22 0.0534 0.0288
 Mars -79030-06-14 04:32 J -27144120.47 -27144120.31 -27144120.14 0.1607 0.0709
 Saturn -79025-11-26 09:35 J -27142128.20 -27142128.10 -27142127.97 0.0296 0.0260
 Saturn -79024-12-11 14:23 J -27141748.13 -27141747.90 -27141747.67 0.0297 0.0130
 Saturn -79023-12-26 13:11 J -27141368.21 -27141367.95 -27141367.70 0.0297 0.0010
 Saturn -79021-01-10 05:44 J -27140988.48 -27140988.26 -27140988.05 0.0296 0.0146
 Saturn -79020-01-23 15:49 J -27140608.93 -27140608.84 -27140608.73 0.0294 0.0267
 Jupiter -79015-09-12 05:01 J -27138551.42 -27138551.29 -27138551.13 0.0491 0.0384
 Uranus -79013-12-23 01:25 J -27137718.53 -27137718.44 -27137718.33 0.0131 0.0120
 Uranus -79012-12-27 09:06 J -27137349.33 -27137349.12 -27137348.92 0.0131 0.0083
 Uranus -79011-12-31 11:16 J -27136980.23 -27136980.03 -27136979.82 0.0131 0.0069
 Saturn -79010-05-24 20:08 J -27136835.79 -27136835.66 -27136835.50 0.0264 0.0206
 Uranus -79009-01-04 17:44 J -27136611.00 -27136610.76 -27136610.49 0.0131 0.0031
 Saturn -79009-06-04 04:32 J -27136459.53 -27136459.31 -27136459.08 0.0264 0.0108
 Uranus -79008-01-07 19:11 J -27136241.94 -27136241.70 -27136241.45 0.0131 0.0015
 Saturn -79008-06-15 07:40 J -27136083.43 -27136083.18 -27136082.92 0.0263 0.0015
 Uranus -79007-01-12 01:11 J -27135872.71 -27135872.45 -27135872.19 0.0131 0.0017
 Saturn -79007-06-26 18:56 J -27135706.94 -27135706.71 -27135706.48 0.0264 0.0068
 Uranus -79006-01-16 01:40 J -27135503.66 -27135503.43 -27135503.20 0.0131 0.0041
 Saturn -79006-07-08 16:47 J -27135329.99 -27135329.80 -27135329.59 0.0265 0.0146

Uranus -79005-01-20 06:13 J -27135134.45 -27135134.24 -27135133.99 0.0131 0.0063
 Saturn -79005-07-19 17:59 J -27134952.87 -27134952.75 -27134952.61 0.0267 0.0227
 Uranus -79004-01-23 05:44 J -27134765.40 -27134765.26 -27134765.07 0.0131 0.0098
 Uranus -79003-01-27 10:32 J -27134396.19 -27134396.06 -27134395.91 0.0131 0.0110
 Jupiter -79003-09-16 14:08 J -27134164.13 -27134163.91 -27134163.68 0.0492 0.0198

79TH MILLENNIUM BCE

This is a list of transits of Moon in the 79th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-78995-12-05 03:06 J	-27131162.55	-27131162.37	-27131162.18	0.0297	0.0184		
Saturn	-78994-12-20 10:04 J	-27130782.32	-27130782.08	-27130781.85	0.0297	0.0048		
Saturn	-78992-01-03 10:18 J	-27130402.30	-27130402.07	-27130401.83	0.0297	0.0091		
Saturn	-78991-01-17 23:59 J	-27130022.66	-27130022.50	-27130022.33	0.0295	0.0219		
Jupiter	-78991-09-21 07:54 J	-27129776.40	-27129776.17	-27129775.94	0.0492	0.0041		
Jupiter	-78985-03-13 15:06 J	-27127775.95	-27127775.87	-27127775.77	0.0536	0.0487		
Mars	-78983-06-08 12:56 J	-27126959.13	-27126958.96	-27126958.78	0.1619	0.0713		
Saturn	-78981-05-19 01:11 J	-27126248.53	-27126248.45	-27126248.34	0.0265	0.0243		
Saturn	-78980-05-30 05:30 J	-27125872.46	-27125872.27	-27125872.07	0.0264	0.0150		
Saturn	-78979-06-10 17:30 J	-27125496.00	-27125495.77	-27125495.54	0.0263	0.0054		
Jupiter	-78979-09-25 22:32 J	-27125388.76	-27125388.56	-27125388.35	0.0493	0.0283		
Saturn	-78978-06-22 04:47 J	-27125119.54	-27125119.30	-27125119.05	0.0264	0.0033		
Saturn	-78977-07-02 14:08 J	-27124743.13	-27124742.91	-27124742.67	0.0265	0.0111		
Saturn	-78976-07-14 08:23 J	-27124366.31	-27124366.15	-27124365.98	0.0266	0.0192		

Jupiter -78973-03-18 07:54 J -27123388.38 -27123388.17 -27123387.95 0.0536 0.0190
 Uranus -78970-06-15 20:23 J -27122203.75 -27122203.65 -27122203.52 0.0148 0.0132
 Uranus -78969-06-20 03:20 J -27121833.50 -27121833.36 -27121833.18 0.0148 0.0111
 Uranus -78968-06-25 06:42 J -27121463.44 -27121463.22 -27121462.98 0.0148 0.0067
 Uranus -78967-06-30 12:13 J -27121093.23 -27121092.99 -27121092.75 0.0148 0.0028
 Jupiter -78967-09-30 10:32 J -27121001.12 -27121001.06 -27121001.00 0.0494 0.0475
 Uranus -78966-07-05 19:54 J -27120722.93 -27120722.67 -27120722.40 0.0148 0.0001
 Saturn -78966-11-28 08:52 J -27120577.27 -27120577.13 -27120576.97 0.0296 0.0242
 Uranus -78965-07-09 23:01 J -27120352.77 -27120352.54 -27120352.31 0.0148 0.0053
 Saturn -78965-12-12 11:59 J -27120197.23 -27120197.00 -27120196.76 0.0297 0.0112
 Uranus -78964-07-15 10:04 J -27119982.28 -27119982.08 -27119981.84 0.0148 0.0080
 Neptune -78964-10-05 01:25 J -27119900.51 -27119900.44 -27119900.31 0.0088 0.0083
 Saturn -78964-12-27 12:28 J -27119817.23 -27119816.98 -27119816.74 0.0297 0.0026
 Uranus -78963-07-20 11:16 J -27119612.16 -27119612.03 -27119611.87 0.0148 0.0121
 Neptune -78963-10-07 21:06 J -27119532.81 -27119532.62 -27119532.42 0.0088 0.0059
 Saturn -78962-01-11 08:23 J -27119437.34 -27119437.15 -27119436.94 0.0296 0.0161
 Neptune -78962-10-10 05:30 J -27119165.50 -27119165.27 -27119165.04 0.0088 0.0045
 Saturn -78961-01-25 21:20 J -27119057.66 -27119057.61 -27119057.53 0.0294 0.0281
 Jupiter -78961-03-23 10:47 J -27119000.27 -27119000.05 -27118999.83 0.0534 0.0044
 Neptune -78961-10-12 02:37 J -27118797.64 -27118797.39 -27118797.13 0.0088 0.0022
 Neptune -78960-10-14 10:04 J -27118430.34 -27118430.08 -27118429.82 0.0088 0.0006
 Neptune -78959-10-17 06:56 J -27118062.47 -27118062.21 -27118061.94 0.0088 0.0017
 Neptune -78958-10-19 15:49 J -27117695.07 -27117694.84 -27117694.59 0.0088 0.0034
 Neptune -78957-10-21 10:04 J -27117327.29 -27117327.08 -27117326.85 0.0088 0.0054
 Neptune -78956-10-23 22:32 J -27116959.68 -27116959.56 -27116959.38 0.0088 0.0072
 Saturn -78951-05-25 23:01 J -27115284.69 -27115284.54 -27115284.36 0.0264 0.0191
 Saturn -78950-06-06 01:54 J -27114908.66 -27114908.42 -27114908.18 0.0264 0.0093
 Jupiter -78949-03-28 03:20 J -27114612.56 -27114612.36 -27114612.15 0.0533 0.0261
 Saturn -78949-06-16 08:37 J -27114532.39 -27114532.14 -27114531.90 0.0264 0.0006
 Saturn -78948-06-28 01:25 J -27114155.66 -27114155.44 -27114155.21 0.0264 0.0077

Saturn -78947-07-09 21:06 J -27113778.81 -27113778.62 -27113778.41 0.0265 0.0157
 Saturn -78946-07-21 16:47 J -27113401.90 -27113401.80 -27113401.68 0.0267 0.0240
 Saturn -78937-11-21 04:18 J -27109991.36 -27109991.32 -27109991.27 0.0296 0.0290
 Saturn -78936-12-06 13:11 J -27109611.15 -27109610.95 -27109610.75 0.0297 0.0165
 Saturn -78935-12-21 17:30 J -27109231.01 -27109230.77 -27109230.52 0.0297 0.0032
 Saturn -78933-01-05 13:54 J -27108851.16 -27108850.92 -27108850.69 0.0297 0.0106
 Saturn -78932-01-18 23:30 J -27108471.66 -27108471.52 -27108471.35 0.0295 0.0235
 Jupiter -78932-09-11 07:11 J -27108236.34 -27108236.20 -27108236.05 0.0491 0.0395
 Uranus -78929-12-23 17:30 J -27107036.91 -27107036.77 -27107036.63 0.0131 0.0108
 Uranus -78928-12-27 23:44 J -27106667.67 -27106667.51 -27106667.30 0.0131 0.0093
 Uranus -78926-01-01 03:20 J -27106298.58 -27106298.36 -27106298.13 0.0131 0.0053
 Uranus -78925-01-05 08:37 J -27105929.38 -27105929.14 -27105928.88 0.0131 0.0039
 Uranus -78924-01-08 10:32 J -27105560.31 -27105560.06 -27105559.81 0.0131 0.0003
 Uranus -78923-01-12 15:06 J -27105191.13 -27105190.87 -27105190.61 0.0131 0.0017
 Uranus -78922-01-16 15:49 J -27104822.06 -27104821.84 -27104821.60 0.0131 0.0044
 Saturn -78922-05-21 02:23 J -27104697.52 -27104697.40 -27104697.28 0.0265 0.0230
 Uranus -78921-01-20 19:54 J -27104452.88 -27104452.67 -27104452.45 0.0131 0.0073
 Saturn -78921-05-31 12:28 J -27104321.18 -27104320.98 -27104320.77 0.0264 0.0135
 Uranus -78920-01-23 20:37 J -27104083.80 -27104083.64 -27104083.45 0.0131 0.0091
 Saturn -78920-06-11 23:01 J -27103944.78 -27103944.54 -27103944.30 0.0263 0.0039
 Jupiter -78920-09-15 23:16 J -27103848.73 -27103848.53 -27103848.32 0.0491 0.0210
 Uranus -78919-01-28 00:13 J -27103714.53 -27103714.49 -27103714.41 0.0131 0.0128
 Saturn -78919-06-23 04:32 J -27103568.56 -27103568.31 -27103568.06 0.0264 0.0042
 Saturn -78918-07-04 16:32 J -27103192.03 -27103191.81 -27103191.59 0.0265 0.0121
 Saturn -78917-07-15 16:47 J -27102814.94 -27102814.80 -27102814.64 0.0266 0.0205
 Jupiter -78908-09-20 14:37 J -27099461.14 -27099460.89 -27099460.64 0.0492 0.0034
 Saturn -78907-11-29 12:56 J -27099026.11 -27099025.96 -27099025.78 0.0296 0.0223
 Saturn -78906-12-14 18:42 J -27098645.95 -27098645.72 -27098645.49 0.0297 0.0093
 Saturn -78905-12-28 21:20 J -27098265.84 -27098265.61 -27098265.37 0.0297 0.0044
 Mars -78904-06-10 22:04 J -27098101.78 -27098101.58 -27098101.39 0.1616 0.0026

Saturn -78903-01-12 18:28 J -27097885.91 -27097885.73 -27097885.53 0.0295 0.0178
 Jupiter -78902-03-13 14:52 J -27097460.96 -27097460.88 -27097460.79 0.0536 0.0497
 Jupiter -78896-09-24 23:59 J -27095073.69 -27095073.50 -27095073.30 0.0493 0.0273
 Saturn -78892-05-26 22:32 J -27093733.74 -27093733.56 -27093733.37 0.0265 0.0174
 Saturn -78891-06-07 02:23 J -27093357.62 -27093357.40 -27093357.16 0.0264 0.0078
 Jupiter -78890-03-18 17:59 J -27093072.95 -27093072.75 -27093072.55 0.0535 0.0213
 Saturn -78890-06-18 16:04 J -27092981.07 -27092980.83 -27092980.60 0.0264 0.0010
 Saturn -78889-06-29 08:23 J -27092604.38 -27092604.15 -27092603.91 0.0264 0.0087
 Pluto -78889-08-07 22:04 J -27092564.73 -27092564.58 -27092564.37 0.0066 0.0048
 Saturn -78888-07-10 23:01 J -27092227.73 -27092227.54 -27092227.33 0.0265 0.0167
 Pluto -78888-08-09 14:52 J -27092198.04 -27092197.88 -27092197.66 0.0066 0.0047
 Saturn -78887-07-22 20:08 J -27091850.73 -27091850.66 -27091850.57 0.0267 0.0252
 Uranus -78886-06-16 07:40 J -27091522.20 -27091522.18 -27091522.12 0.0148 0.0146
 Uranus -78885-06-20 15:49 J -27091152.02 -27091151.84 -27091151.65 0.0148 0.0097
 Uranus -78884-06-25 17:30 J -27090781.99 -27090781.77 -27090781.53 0.0148 0.0068
 Jupiter -78884-09-29 22:04 J -27090685.67 -27090685.58 -27090685.49 0.0494 0.0456
 Uranus -78883-07-01 00:13 J -27090411.73 -27090411.49 -27090411.25 0.0148 0.0031
 Uranus -78882-07-06 06:42 J -27090041.48 -27090041.22 -27090040.95 0.0148 0.0018
 Neptune -78881-04-05 06:42 J -27089767.29 -27089767.22 -27089767.09 0.0089 0.0082
 Uranus -78881-07-10 11:01 J -27089671.27 -27089671.04 -27089670.79 0.0148 0.0043
 Neptune -78880-04-07 09:35 J -27089400.29 -27089400.10 -27089399.90 0.0089 0.0054
 Uranus -78880-07-15 22:04 J -27089300.77 -27089300.58 -27089300.37 0.0148 0.0093
 Neptune -78879-04-10 01:11 J -27089032.66 -27089032.45 -27089032.23 0.0089 0.0045
 Uranus -78879-07-21 00:13 J -27088930.61 -27088930.49 -27088930.35 0.0148 0.0126
 Jupiter -78878-03-23 08:08 J -27088685.40 -27088685.16 -27088684.92 0.0535 0.0007
 Neptune -78878-04-12 04:04 J -27088665.56 -27088665.33 -27088665.08 0.0089 0.0018
 Saturn -78878-11-23 16:47 J -27088439.88 -27088439.80 -27088439.69 0.0296 0.0272
 Neptune -78877-04-13 17:16 J -27088298.03 -27088297.78 -27088297.52 0.0089 0.0009
 Saturn -78877-12-07 22:18 J -27088059.78 -27088059.57 -27088059.34 0.0297 0.0145
 Neptune -78876-04-16 00:13 J -27087930.73 -27087930.49 -27087930.25 0.0089 0.0018

Saturn -78876-12-22 23:30 J -27087679.78 -27087679.52 -27087679.26 0.0297 0.0010
 Neptune -78875-04-18 08:08 J -27087563.38 -27087563.16 -27087562.89 0.0089 0.0028
 Saturn -78874-01-06 17:44 J -27087299.98 -27087299.76 -27087299.53 0.0297 0.0126
 Neptune -78874-04-20 20:08 J -27087195.82 -27087195.66 -27087195.44 0.0089 0.0055
 Saturn -78873-01-21 05:16 J -27086920.40 -27086920.28 -27086920.15 0.0295 0.0252
 Neptune -78873-04-22 00:56 J -27086828.64 -27086828.46 -27086828.28 0.0089 0.0063
 Jupiter -78866-03-28 04:32 J -27084297.51 -27084297.31 -27084297.11 0.0534 0.0233
 Mars -78864-12-14 06:56 J -27083305.40 -27083305.21 -27083305.03 0.1922 0.0990
 Saturn -78863-05-22 10:18 J -27083146.19 -27083146.07 -27083145.93 0.0265 0.0217
 Saturn -78862-06-02 21:20 J -27082769.82 -27082769.61 -27082769.39 0.0264 0.0118
 Saturn -78861-06-13 02:08 J -27082393.66 -27082393.41 -27082393.15 0.0263 0.0026
 Saturn -78860-06-24 08:52 J -27082017.37 -27082017.13 -27082016.89 0.0264 0.0054
 Saturn -78859-07-06 03:20 J -27081640.56 -27081640.36 -27081640.15 0.0265 0.0133
 Saturn -78858-07-18 04:04 J -27081263.46 -27081263.33 -27081263.18 0.0266 0.0216
 Jupiter -78854-04-02 06:56 J -27079909.23 -27079909.21 -27079909.16 0.0533 0.0526
 Jupiter -78849-09-10 14:37 J -27077921.00 -27077920.89 -27077920.76 0.0491 0.0417
 Saturn -78848-12-01 03:06 J -27077474.54 -27077474.37 -27077474.19 0.0296 0.0205
 Saturn -78847-12-16 10:32 J -27077094.29 -27077094.06 -27077093.83 0.0297 0.0072
 Saturn -78846-12-31 12:42 J -27076714.20 -27076713.97 -27076713.73 0.0296 0.0065
 Uranus -78845-12-24 08:08 J -27076355.26 -27076355.16 -27076355.02 0.0131 0.0114
 Saturn -78844-01-14 06:13 J -27076334.41 -27076334.24 -27076334.04 0.0295 0.0195
 Uranus -78844-12-28 14:08 J -27075986.13 -27075985.91 -27075985.70 0.0131 0.0076
 Uranus -78842-01-01 17:44 J -27075616.96 -27075616.76 -27075616.53 0.0131 0.0063
 Uranus -78841-01-05 22:32 J -27075247.82 -27075247.56 -27075247.30 0.0131 0.0023
 Uranus -78840-01-09 01:25 J -27074878.68 -27074878.44 -27074878.19 0.0131 0.0008
 Uranus -78839-01-13 05:16 J -27074509.53 -27074509.28 -27074509.02 0.0131 0.0025
 Uranus -78838-01-17 07:11 J -27074140.41 -27074140.20 -27074139.96 0.0131 0.0050
 Uranus -78837-01-21 09:49 J -27073771.29 -27073771.09 -27073770.85 0.0131 0.0072
 Jupiter -78837-09-15 02:08 J -27073533.63 -27073533.41 -27073533.18 0.0492 0.0223
 Uranus -78836-01-24 11:44 J -27073402.14 -27073402.01 -27073401.86 0.0131 0.0106

Uranus	-78835-01-28 14:08 J	-27073033.01	-27073032.91	-27073032.80	0.0131	0.0120
Saturn	-78834-05-17 22:47 J	-27072558.61	-27072558.55	-27072558.48	0.0266	0.0255
Saturn	-78833-05-28 00:42 J	-27072182.65	-27072182.47	-27072182.26	0.0265	0.0158
Saturn	-78832-06-08 11:16 J	-27071806.25	-27071806.03	-27071805.79	0.0264	0.0063
Saturn	-78831-06-20 01:25 J	-27071429.67	-27071429.44	-27071429.19	0.0264	0.0025
Saturn	-78830-07-01 12:28 J	-27071053.21	-27071052.98	-27071052.74	0.0265	0.0099
Saturn	-78829-07-12 03:06 J	-27070676.54	-27070676.37	-27070676.17	0.0266	0.0179
Saturn	-78828-07-24 07:11 J	-27070299.20	-27070299.20	-27070299.19	0.0267	0.0267
Mars	-78825-06-13 01:40 J	-27069244.59	-27069244.43	-27069244.26	0.1613	0.0778
Jupiter	-78825-09-19 12:56 J	-27069146.20	-27069145.96	-27069145.73	0.0492	0.0025
Jupiter	-78819-03-12 19:40 J	-27067145.70	-27067145.68	-27067145.65	0.0536	0.0532
Saturn	-78819-11-25 05:59 J	-27066888.37	-27066888.25	-27066888.11	0.0296	0.0255
Saturn	-78818-12-10 08:37 J	-27066508.36	-27066508.14	-27066507.90	0.0297	0.0123
Saturn	-78817-12-24 09:06 J	-27066128.37	-27066128.12	-27066127.87	0.0297	0.0015
Saturn	-78815-01-08 05:16 J	-27065748.48	-27065748.28	-27065748.06	0.0296	0.0148
Saturn	-78814-01-22 19:40 J	-27065368.76	-27065368.68	-27065368.57	0.0295	0.0269
Jupiter	-78813-09-24 10:18 J	-27064758.27	-27064758.07	-27064757.86	0.0493	0.0256
Jupiter	-78807-03-17 11:59 J	-27062758.20	-27062758.00	-27062757.78	0.0536	0.0252
Saturn	-78804-05-23 21:06 J	-27061594.77	-27061594.62	-27061594.46	0.0265	0.0202
Saturn	-78803-06-04 02:23 J	-27061218.63	-27061218.40	-27061218.17	0.0264	0.0102
Saturn	-78802-06-15 06:13 J	-27060842.48	-27060842.24	-27060841.99	0.0264	0.0012
Uranus	-78802-06-16 19:11 J	-27060840.81	-27060840.70	-27060840.56	0.0148	0.0129
Pluto	-78801-02-14 10:04 J	-27060598.33	-27060598.08	-27060597.83	0.0079	0.0020
Uranus	-78801-06-21 04:04 J	-27060470.48	-27060470.33	-27060470.15	0.0148	0.0107
Saturn	-78801-06-25 19:54 J	-27060465.90	-27060465.67	-27060465.44	0.0264	0.0070
Jupiter	-78801-09-28 15:35 J	-27060370.95	-27060370.85	-27060370.72	0.0493	0.0432
Uranus	-78800-06-26 05:01 J	-27060100.51	-27060100.29	-27060100.04	0.0148	0.0061
Saturn	-78800-07-07 16:32 J	-27060089.00	-27060088.81	-27060088.59	0.0265	0.0146
Neptune	-78800-10-04 07:11 J	-27060000.25	-27060000.20	-27060000.13	0.0088	0.0086
Uranus	-78799-07-01 12:56 J	-27059730.20	-27059729.96	-27059729.72	0.0148	0.0022

Saturn -78799-07-19 13:25 J -27059712.07 -27059711.94 -27059711.81 0.0267 0.0230
 Neptune -78799-10-06 15:06 J -27059633.01 -27059632.87 -27059632.72 0.0088 0.0074
 Uranus -78798-07-06 18:13 J -27059360.00 -27059359.74 -27059359.47 0.0148 0.0009
 Neptune -78798-10-09 12:42 J -27059265.18 -27059264.97 -27059264.73 0.0088 0.0048
 Uranus -78797-07-10 23:30 J -27058989.73 -27058989.52 -27058989.29 0.0148 0.0062
 Neptune -78797-10-10 20:23 J -27058897.87 -27058897.65 -27058897.39 0.0088 0.0037
 Uranus -78796-07-16 09:06 J -27058619.32 -27058619.12 -27058618.90 0.0148 0.0088
 Neptune -78796-10-13 17:01 J -27058530.06 -27058529.79 -27058529.51 0.0088 0.0010
 Jupiter -78795-03-22 11:30 J -27058370.23 -27058370.02 -27058369.80 0.0535 0.0031
 Uranus -78795-07-21 11:59 J -27058249.10 -27058249.00 -27058248.87 0.0148 0.0131
 Neptune -78795-10-16 03:35 J -27058162.61 -27058162.35 -27058162.10 0.0088 0.0002
 Neptune -78794-10-18 19:11 J -27057794.95 -27057794.70 -27057794.43 0.0088 0.0028
 Neptune -78793-10-20 09:35 J -27057427.32 -27057427.10 -27057426.86 0.0088 0.0039
 Neptune -78792-10-22 20:52 J -27057059.79 -27057059.63 -27057059.42 0.0088 0.0066
 Neptune -78791-10-25 16:47 J -27056691.93 -27056691.80 -27056691.67 0.0088 0.0076
 Saturn -78789-12-02 23:44 J -27055922.70 -27055922.51 -27055922.32 0.0296 0.0184
 Saturn -78788-12-18 05:44 J -27055542.50 -27055542.26 -27055542.02 0.0297 0.0049
 Saturn -78786-01-02 04:32 J -27055162.55 -27055162.31 -27055162.07 0.0296 0.0086
 Saturn -78785-01-16 17:44 J -27054782.93 -27054782.76 -27054782.58 0.0295 0.0213
 Mars -78785-12-18 01:54 J -27054446.61 -27054446.42 -27054446.23 0.1928 0.0396
 Jupiter -78783-03-27 13:11 J -27053982.16 -27053981.95 -27053981.74 0.0534 0.0211
 Mars -78778-06-08 03:35 J -27052083.50 -27052083.35 -27052083.20 0.1626 0.0879
 Saturn -78775-05-19 01:40 J -27051007.52 -27051007.43 -27051007.32 0.0266 0.0241
 Saturn -78774-05-30 10:18 J -27050631.26 -27050631.07 -27050630.87 0.0265 0.0144
 Saturn -78773-06-09 23:30 J -27050254.75 -27050254.52 -27050254.28 0.0264 0.0046
 Saturn -78772-06-21 08:52 J -27049878.38 -27049878.13 -27049877.88 0.0264 0.0039
 Jupiter -78771-04-01 01:25 J -27049594.51 -27049594.44 -27049594.36 0.0533 0.0496
 Saturn -78771-07-02 17:44 J -27049501.98 -27049501.76 -27049501.52 0.0265 0.0113
 Saturn -78770-07-14 15:06 J -27049125.02 -27049124.87 -27049124.70 0.0266 0.0195
 Jupiter -78766-09-10 14:23 J -27047606.01 -27047605.90 -27047605.78 0.0491 0.0437

Uranus	-78761-12-25 00:13 J	-27045673.63	-27045673.49	-27045673.33	0.0131	0.0103
Saturn	-78760-11-26 19:54 J	-27045336.83	-27045336.67	-27045336.51	0.0296	0.0234
Uranus	-78760-12-29 04:47 J	-27045304.49	-27045304.30	-27045304.09	0.0131	0.0085
Saturn	-78759-12-11 23:59 J	-27044956.73	-27044956.50	-27044956.27	0.0297	0.0101
Uranus	-78758-01-02 09:35 J	-27044935.32	-27044935.10	-27044934.86	0.0131	0.0046
Saturn	-78758-12-27 02:37 J	-27044576.62	-27044576.39	-27044576.15	0.0297	0.0037
Uranus	-78757-01-06 12:56 J	-27044566.22	-27044565.96	-27044565.71	0.0131	0.0031
Uranus	-78756-01-09 16:32 J	-27044197.06	-27044196.81	-27044196.57	0.0131	0.0006
Saturn	-78756-01-10 00:56 J	-27044196.65	-27044196.46	-27044196.27	0.0296	0.0169 *
Uranus	-78755-01-13 18:42 J	-27043827.97	-27043827.72	-27043827.45	0.0131	0.0025
Saturn	-78755-01-24 14:37 J	-27043816.93	-27043816.89	-27043816.84	0.0294	0.0288
Uranus	-78754-01-17 21:35 J	-27043458.81	-27043458.60	-27043458.36	0.0131	0.0053
Jupiter	-78754-09-15 01:54 J	-27043218.62	-27043218.42	-27043218.21	0.0491	0.0240
Uranus	-78753-01-21 23:44 J	-27043089.71	-27043089.51	-27043089.30	0.0131	0.0082
Uranus	-78752-01-25 02:37 J	-27042720.53	-27042720.39	-27042720.23	0.0131	0.0101
Mars	-78746-06-15 21:06 J	-27040387.74	-27040387.62	-27040387.50	0.1610	0.1165
Saturn	-78745-05-25 05:30 J	-27040043.43	-27040043.27	-27040043.09	0.0265	0.0188
Saturn	-78744-06-05 07:25 J	-27039667.43	-27039667.19	-27039666.96	0.0264	0.0085
Saturn	-78743-06-16 16:47 J	-27039291.03	-27039290.80	-27039290.56	0.0264	0.0007
Saturn	-78742-06-28 09:49 J	-27038914.31	-27038914.09	-27038913.86	0.0264	0.0085
Jupiter	-78742-09-19 20:52 J	-27038830.87	-27038830.63	-27038830.39	0.0492	0.0012
Saturn	-78741-07-09 02:37 J	-27038537.59	-27038537.39	-27038537.19	0.0265	0.0161
Saturn	-78740-07-20 20:23 J	-27038160.73	-27038160.65	-27038160.54	0.0267	0.0246
Saturn	-78731-11-20 14:52 J	-27034750.90	-27034750.88	-27034750.83	0.0295	0.0291
Jupiter	-78730-09-24 02:52 J	-27034443.59	-27034443.38	-27034443.16	0.0492	0.0231
Saturn	-78730-12-05 21:35 J	-27034370.80	-27034370.60	-27034370.39	0.0296	0.0165
Saturn	-78729-12-19 23:59 J	-27033990.76	-27033990.50	-27033990.25	0.0297	0.0027
Saturn	-78727-01-03 19:25 J	-27033610.92	-27033610.69	-27033610.45	0.0296	0.0110
Saturn	-78726-01-18 07:40 J	-27033231.32	-27033231.18	-27033231.03	0.0295	0.0236
Jupiter	-78724-03-16 16:47 J	-27032442.99	-27032442.80	-27032442.62	0.0536	0.0280

Uranus -78718-06-17 03:49 J -27030159.38 -27030159.34 -27030159.26 0.0148 0.0143
 Jupiter -78718-09-28 22:47 J -27030055.68 -27030055.55 -27030055.42 0.0493 0.0406
 Neptune -78717-04-04 06:28 J -27029867.26 -27029867.23 -27029867.14 0.0089 0.0086
 Uranus -78717-06-21 13:11 J -27029789.12 -27029788.95 -27029788.74 0.0148 0.0093
 Neptune -78716-04-06 22:18 J -27029499.73 -27029499.57 -27029499.40 0.0089 0.0066
 Saturn -78716-05-20 09:49 J -27029456.20 -27029456.09 -27029455.96 0.0266 0.0227
 Uranus -78716-06-26 12:42 J -27029419.19 -27029418.97 -27029418.72 0.0148 0.0064
 Neptune -78715-04-09 01:40 J -27029132.62 -27029132.43 -27029132.21 0.0089 0.0050
 Saturn -78715-05-31 22:32 J -27029079.76 -27029079.56 -27029079.35 0.0265 0.0127
 Uranus -78715-07-01 21:49 J -27029048.83 -27029048.59 -27029048.35 0.0148 0.0024
 Neptune -78714-04-11 14:08 J -27028765.14 -27028764.91 -27028764.66 0.0089 0.0031
 Saturn -78714-06-12 07:25 J -27028703.43 -27028703.19 -27028702.94 0.0264 0.0031
 Uranus -78714-07-07 01:40 J -27028678.68 -27028678.43 -27028678.16 0.0148 0.0024
 Neptune -78713-04-12 22:18 J -27028397.80 -27028397.57 -27028397.32 0.0089 0.0015
 Saturn -78713-06-22 13:25 J -27028327.18 -27028326.94 -27028326.69 0.0264 0.0053
 Uranus -78713-07-11 08:37 J -27028308.37 -27028308.14 -27028307.91 0.0148 0.0050
 Jupiter -78712-03-21 16:18 J -27028055.05 -27028054.82 -27028054.59 0.0535 0.0067
 Neptune -78712-04-15 05:59 J -27028030.51 -27028030.25 -27028029.99 0.0089 0.0005
 Saturn -78712-07-04 04:18 J -27027950.52 -27027950.32 -27027950.10 0.0265 0.0131
 Uranus -78712-07-16 17:01 J -27027937.97 -27027937.79 -27027937.58 0.0148 0.0101
 Neptune -78711-04-17 18:28 J -27027662.95 -27027662.73 -27027662.48 0.0089 0.0022
 Saturn -78711-07-16 06:13 J -27027573.38 -27027573.24 -27027573.09 0.0266 0.0211
 Uranus -78711-07-21 21:20 J -27027567.69 -27027567.61 -27027567.49 0.0148 0.0134
 Neptune -78710-04-19 21:35 J -27027295.80 -27027295.60 -27027295.35 0.0089 0.0042
 Neptune -78709-04-21 13:54 J -27026928.11 -27026927.92 -27026927.73 0.0089 0.0058
 Neptune -78708-04-23 15:35 J -27026560.95 -27026560.85 -27026560.70 0.0089 0.0077
 Saturn -78701-11-28 14:23 J -27023785.06 -27023784.90 -27023784.73 0.0296 0.0217
 Jupiter -78700-03-26 01:54 J -27023667.63 -27023667.42 -27023667.21 0.0534 0.0164
 Saturn -78700-12-13 21:35 J -27023404.83 -27023404.60 -27023404.37 0.0297 0.0082
 Mars -78699-06-09 21:35 J -27023226.78 -27023226.60 -27023226.43 0.1623 0.0331

Saturn -78699-12-29 01:54 J -27023024.65 -27023024.42 -27023024.19 0.0297 0.0059
 Saturn -78697-01-12 22:32 J -27022644.74 -27022644.56 -27022644.37 0.0296 0.0192
 Jupiter -78688-03-31 04:18 J -27019279.43 -27019279.32 -27019279.20 0.0534 0.0457
 Saturn -78687-05-16 07:54 J -27018868.20 -27018868.17 -27018868.13 0.0266 0.0263
 Saturn -78686-05-27 10:32 J -27018492.25 -27018492.06 -27018491.86 0.0265 0.0169
 Saturn -78685-06-06 16:47 J -27018116.02 -27018115.80 -27018115.57 0.0264 0.0070
 Saturn -78684-06-18 07:11 J -27017739.43 -27017739.20 -27017738.96 0.0264 0.0020
 Saturn -78683-06-29 21:20 J -27017362.84 -27017362.61 -27017362.38 0.0264 0.0101
 Jupiter -78683-09-09 13:54 J -27017290.99 -27017290.92 -27017290.85 0.0491 0.0464
 Saturn -78682-07-11 09:49 J -27016986.28 -27016986.09 -27016985.90 0.0265 0.0177
 Saturn -78681-07-22 08:23 J -27016609.18 -27016609.15 -27016609.10 0.0267 0.0263
 Uranus -78678-12-22 07:11 J -27015361.24 -27015361.20 -27015361.14 0.0131 0.0129
 Uranus -78677-12-25 14:37 J -27014992.02 -27014991.89 -27014991.74 0.0131 0.0108
 Uranus -78676-12-29 17:59 J -27014622.96 -27014622.75 -27014622.51 0.0131 0.0071
 Uranus -78674-01-03 00:13 J -27014253.71 -27014253.49 -27014253.27 0.0131 0.0055
 Uranus -78673-01-07 02:52 J -27013884.64 -27013884.38 -27013884.12 0.0131 0.0015
 Uranus -78672-01-10 07:54 J -27013515.42 -27013515.17 -27013514.93 0.0131 0.0001
 Saturn -78672-11-22 13:11 J -27013199.04 -27013198.95 -27013198.85 0.0295 0.0270
 Uranus -78671-01-14 09:20 J -27013146.35 -27013146.11 -27013145.84 0.0131 0.0034
 Jupiter -78671-09-14 08:23 J -27012903.36 -27012903.15 -27012902.94 0.0491 0.0257
 Saturn -78671-12-07 16:18 J -27012819.03 -27012818.82 -27012818.58 0.0296 0.0144
 Uranus -78670-01-18 13:25 J -27012777.14 -27012776.94 -27012776.71 0.0131 0.0059
 Saturn -78670-12-22 16:18 J -27012439.08 -27012438.82 -27012438.56 0.0297 0.0003
 Uranus -78669-01-22 14:23 J -27012408.09 -27012407.90 -27012407.68 0.0131 0.0082
 Saturn -78668-01-05 11:59 J -27012059.21 -27012059.00 -27012058.77 0.0296 0.0135
 Uranus -78668-01-25 18:13 J -27012038.84 -27012038.74 -27012038.62 0.0131 0.0116
 Saturn -78667-01-20 02:52 J -27011679.50 -27011679.38 -27011679.27 0.0294 0.0258
 Uranus -78667-01-29 18:28 J -27011669.74 -27011669.73 -27011669.68 0.0131 0.0131
 Jupiter -78659-09-18 11:30 J -27008516.26 -27008516.02 -27008515.78 0.0492 0.0015
 Saturn -78657-05-21 22:47 J -27007904.69 -27007904.55 -27007904.41 0.0266 0.0210

Saturn -78656-06-02 08:23 J -27007528.37 -27007528.15 -27007527.92 0.0265 0.0111
 Saturn -78655-06-13 11:44 J -27007152.26 -27007152.01 -27007151.76 0.0264 0.0016
 Saturn -78654-06-24 21:35 J -27006775.83 -27006775.60 -27006775.36 0.0264 0.0067
 Saturn -78653-07-05 17:44 J -27006398.95 -27006398.76 -27006398.55 0.0265 0.0146
 Saturn -78652-07-17 17:16 J -27006021.90 -27006021.78 -27006021.64 0.0267 0.0227
 Jupiter -78647-09-23 09:49 J -27004128.30 -27004128.09 -27004127.88 0.0492 0.0206
 Saturn -78642-12-01 13:40 J -27002233.10 -27002232.93 -27002232.74 0.0296 0.0196
 Jupiter -78641-03-15 13:11 J -27002128.13 -27002127.95 -27002127.76 0.0536 0.0327
 Pluto -78641-08-10 15:20 J -27001980.09 -27001979.86 -27001979.62 0.0066 0.0033
 Saturn -78641-12-15 21:35 J -27001852.84 -27001852.60 -27001852.37 0.0297 0.0060
 Saturn -78640-12-30 23:59 J -27001472.74 -27001472.50 -27001472.27 0.0297 0.0081
 Saturn -78638-01-14 16:18 J -27001092.98 -27001092.82 -27001092.63 0.0296 0.0213
 Jupiter -78635-09-27 19:11 J -26999740.86 -26999740.70 -26999740.54 0.0493 0.0379
 Neptune -78635-10-05 22:47 J -26999732.64 -26999732.55 -26999732.44 0.0088 0.0082
 Uranus -78634-06-17 17:44 J -26999477.89 -26999477.76 -26999477.62 0.0148 0.0125
 Neptune -78634-10-08 06:56 J -26999365.38 -26999365.21 -26999364.99 0.0088 0.0058
 Uranus -78633-06-22 03:20 J -26999107.52 -26999107.36 -26999107.17 0.0148 0.0103
 Neptune -78633-10-10 02:08 J -26998997.64 -26998997.41 -26998997.17 0.0088 0.0045
 Uranus -78632-06-27 02:23 J -26998737.63 -26998737.40 -26998737.15 0.0148 0.0055
 Neptune -78632-10-12 14:37 J -26998630.14 -26998629.89 -26998629.64 0.0088 0.0021
 Uranus -78631-07-02 12:13 J -26998367.24 -26998366.99 -26998366.75 0.0148 0.0016
 Neptune -78631-10-15 05:16 J -26998262.55 -26998262.28 -26998262.00 0.0088 0.0007
 Uranus -78630-07-07 14:52 J -26997997.14 -26997996.88 -26997996.62 0.0148 0.0016
 Neptune -78630-10-17 21:35 J -26997894.84 -26997894.60 -26997894.33 0.0088 0.0018
 Jupiter -78629-03-20 04:04 J -26997740.54 -26997740.33 -26997740.11 0.0535 0.0118
 Uranus -78629-07-11 22:32 J -26997626.77 -26997626.56 -26997626.34 0.0148 0.0069
 Neptune -78629-10-19 07:25 J -26997527.43 -26997527.19 -26997526.92 0.0088 0.0031
 Saturn -78628-05-17 12:28 J -26997317.05 -26997316.98 -26997316.88 0.0266 0.0247
 Uranus -78628-07-17 05:44 J -26997256.45 -26997256.26 -26997256.05 0.0148 0.0095
 Neptune -78628-10-22 03:35 J -26997159.54 -26997159.35 -26997159.12 0.0088 0.0053

Saturn -78627-05-28 17:01 J -26996940.98 -26996940.79 -26996940.59 0.0264 0.0153
 Uranus -78627-07-22 10:47 J -26996886.10 -26996886.05 -26996885.96 0.0148 0.0141
 Neptune -78627-10-24 10:18 J -26996792.21 -26996792.07 -26996791.87 0.0088 0.0068
 Saturn -78626-06-09 05:16 J -26996564.51 -26996564.28 -26996564.05 0.0264 0.0055
 Saturn -78625-06-19 17:30 J -26996188.01 -26996187.77 -26996187.52 0.0264 0.0034
 Saturn -78624-07-01 02:37 J -26995811.62 -26995811.39 -26995811.16 0.0264 0.0113
 Saturn -78623-07-12 18:28 J -26995434.89 -26995434.73 -26995434.56 0.0266 0.0193
 Mars -78620-06-11 19:40 J -26994369.86 -26994369.68 -26994369.49 0.1620 0.0255
 Jupiter -78617-03-25 08:52 J -26993352.35 -26993352.13 -26993351.91 0.0535 0.0132
 Saturn -78613-11-24 05:59 J -26991647.37 -26991647.25 -26991647.09 0.0295 0.0249
 Saturn -78612-12-09 09:20 J -26991267.34 -26991267.11 -26991266.87 0.0296 0.0119
 Saturn -78611-12-24 11:01 J -26990887.28 -26990887.04 -26990886.79 0.0297 0.0019
 Saturn -78609-01-08 09:35 J -26990507.30 -26990507.10 -26990506.90 0.0296 0.0155
 Saturn -78608-01-22 01:11 J -26990127.51 -26990127.45 -26990127.36 0.0294 0.0278
 Jupiter -78605-03-30 00:28 J -26988964.61 -26988964.48 -26988964.35 0.0534 0.0432
 Saturn -78598-05-24 08:37 J -26986353.29 -26986353.14 -26986352.96 0.0265 0.0194
 Saturn -78597-06-03 12:28 J -26985977.21 -26985976.98 -26985976.74 0.0264 0.0094
 Saturn -78596-06-14 17:44 J -26985601.00 -26985600.76 -26985600.51 0.0264 0.0004
 Saturn -78595-06-26 09:35 J -26985224.32 -26985224.10 -26985223.87 0.0264 0.0080
 Saturn -78594-07-08 04:32 J -26984847.49 -26984847.31 -26984847.10 0.0265 0.0161
 Uranus -78594-12-22 21:20 J -26984679.64 -26984679.61 -26984679.55 0.0132 0.0130
 Saturn -78593-07-18 22:32 J -26984470.64 -26984470.56 -26984470.44 0.0267 0.0244
 Uranus -78593-12-26 05:59 J -26984310.40 -26984310.25 -26984310.07 0.0131 0.0098
 Uranus -78592-12-30 08:23 J -26983941.34 -26983941.15 -26983940.92 0.0131 0.0079
 Uranus -78590-01-03 15:20 J -26983572.08 -26983571.86 -26983571.61 0.0131 0.0039
 Uranus -78589-01-07 16:47 J -26983203.05 -26983202.80 -26983202.53 0.0131 0.0024
 Uranus -78588-01-10 22:47 J -26982833.79 -26982833.55 -26982833.30 0.0131 0.0014
 Jupiter -78588-09-13 00:28 J -26982588.67 -26982588.48 -26982588.28 0.0491 0.0281
 Uranus -78587-01-14 23:16 J -26982464.77 -26982464.53 -26982464.27 0.0131 0.0033
 Uranus -78586-01-19 04:18 J -26982095.52 -26982095.32 -26982095.09 0.0131 0.0063

Uranus -78585-01-23 04:47 J -26981726.47 -26981726.30 -26981726.10 0.0131 0.0092
 Uranus -78584-01-26 09:49 J -26981357.20 -26981357.09 -26981356.95 0.0131 0.0112
 Saturn -78583-12-03 12:13 J -26980681.18 -26980680.99 -26980680.79 0.0296 0.0175
 Saturn -78582-12-18 17:30 J -26980301.01 -26980300.77 -26980300.52 0.0297 0.0039
 Saturn -78580-01-01 16:04 J -26979921.06 -26979920.83 -26979920.58 0.0297 0.0101
 Mars -78580-12-12 07:54 J -26979576.19 -26979576.17 -26979576.15 0.1911 0.1900
 Saturn -78579-01-16 05:16 J -26979541.42 -26979541.28 -26979541.11 0.0296 0.0234
 Jupiter -78576-09-17 23:16 J -26978200.76 -26978200.53 -26978200.29 0.0492 0.0029
 Mars -78573-06-06 01:54 J -26977208.52 -26977208.42 -26977208.33 0.1635 0.1422
 Saturn -78569-05-18 17:16 J -26975765.88 -26975765.78 -26975765.66 0.0265 0.0234
 Saturn -78568-05-30 03:35 J -26975389.54 -26975389.35 -26975389.14 0.0264 0.0136
 Saturn -78567-06-10 15:06 J -26975013.11 -26975012.87 -26975012.63 0.0264 0.0038
 Saturn -78566-06-21 21:06 J -26974636.87 -26974636.62 -26974636.37 0.0264 0.0046
 Saturn -78565-07-02 07:11 J -26974260.42 -26974260.20 -26974259.98 0.0264 0.0125
 Saturn -78564-07-14 05:01 J -26973883.42 -26973883.29 -26973883.13 0.0266 0.0209
 Jupiter -78564-09-22 05:59 J -26973813.48 -26973813.25 -26973813.02 0.0492 0.0181
 Jupiter -78558-03-15 07:11 J -26971813.35 -26971813.20 -26971813.03 0.0536 0.0366
 Pluto -78554-02-15 04:47 J -26970380.54 -26970380.30 -26970380.03 0.0079 0.0015
 Saturn -78554-11-26 20:37 J -26970095.79 -26970095.64 -26970095.47 0.0296 0.0228
 Neptune -78553-04-03 19:40 J -26969966.70 -26969966.68 -26969966.65 0.0089 0.0088
 Saturn -78553-12-11 02:52 J -26969715.61 -26969715.38 -26969715.15 0.0297 0.0097
 Neptune -78552-04-05 23:44 J -26969599.60 -26969599.51 -26969599.39 0.0089 0.0080
 Jupiter -78552-09-26 23:16 J -26969425.69 -26969425.53 -26969425.37 0.0493 0.0351
 Saturn -78552-12-26 07:25 J -26969335.43 -26969335.19 -26969334.96 0.0297 0.0041
 Neptune -78551-04-08 10:47 J -26969232.25 -26969232.05 -26969231.83 0.0089 0.0054
 Saturn -78550-01-10 06:42 J -26968955.41 -26968955.22 -26968955.03 0.0296 0.0177
 Neptune -78550-04-10 19:25 J -26968864.88 -26968864.69 -26968864.47 0.0089 0.0045
 Uranus -78550-06-18 07:40 J -26968796.25 -26968796.18 -26968796.07 0.0147 0.0138
 Neptune -78549-04-12 01:40 J -26968497.66 -26968497.43 -26968497.16 0.0089 0.0019
 Uranus -78549-06-22 17:44 J -26968425.95 -26968425.76 -26968425.55 0.0148 0.0086

Neptune -78548-04-14 15:49 J -26968130.08 -26968129.84 -26968129.59 0.0089 0.0009
 Uranus -78548-06-27 15:35 J -26968056.08 -26968055.85 -26968055.60 0.0148 0.0057
 Neptune -78547-04-16 18:28 J -26967762.96 -26967762.73 -26967762.47 0.0089 0.0018
 Uranus -78547-07-03 01:54 J -26967685.66 -26967685.42 -26967685.17 0.0148 0.0016
 Jupiter -78546-03-20 14:37 J -26967425.11 -26967424.89 -26967424.67 0.0536 0.0145
 Neptune -78546-04-19 10:32 J -26967395.29 -26967395.06 -26967394.81 0.0089 0.0026
 Uranus -78546-07-08 03:49 J -26967315.59 -26967315.34 -26967315.08 0.0148 0.0032
 Neptune -78545-04-20 13:11 J -26967028.13 -26967027.95 -26967027.74 0.0089 0.0053
 Uranus -78545-07-12 12:28 J -26966945.19 -26966944.98 -26966944.74 0.0148 0.0060
 Neptune -78544-04-23 03:35 J -26966660.51 -26966660.35 -26966660.14 0.0089 0.0062
 Uranus -78544-07-17 18:56 J -26966574.86 -26966574.71 -26966574.52 0.0148 0.0112
 Neptune -78543-04-25 09:35 J -26966293.10 -26966293.10 -26966293.06 0.0089 0.0089
 Uranus -78543-07-23 01:25 J -26966204.48 -26966204.44 -26966204.37 0.0148 0.0144
 Mars -78541-06-14 02:08 J -26965512.55 -26965512.41 -26965512.27 0.1616 0.1165
 Saturn -78539-05-25 11:59 J -26964802.18 -26964802.00 -26964801.81 0.0265 0.0177
 Saturn -78538-06-05 14:52 J -26964426.11 -26964425.88 -26964425.64 0.0264 0.0077
 Saturn -78537-06-16 02:23 J -26964049.63 -26964049.40 -26964049.16 0.0264 0.0013
 Saturn -78536-06-27 18:13 J -26963672.96 -26963672.74 -26963672.51 0.0264 0.0092
 Saturn -78535-07-09 07:40 J -26963296.36 -26963296.18 -26963295.98 0.0265 0.0172
 Jupiter -78534-03-25 05:01 J -26963037.52 -26963037.29 -26963037.07 0.0535 0.0106
 Saturn -78534-07-21 01:54 J -26962919.47 -26962919.42 -26962919.35 0.0267 0.0258
 Saturn -78525-11-19 20:52 J -26959509.69 -26959509.63 -26959509.55 0.0295 0.0282
 Saturn -78524-12-05 02:52 J -26959129.59 -26959129.38 -26959129.15 0.0297 0.0155
 Saturn -78523-12-20 05:44 J -26958749.52 -26958749.26 -26958749.00 0.0297 0.0016
 Jupiter -78522-03-30 02:08 J -26958649.55 -26958649.41 -26958649.26 0.0534 0.0398
 Saturn -78521-01-04 03:06 J -26958369.60 -26958369.37 -26958369.14 0.0297 0.0123
 Saturn -78520-01-17 18:13 J -26957989.86 -26957989.74 -26957989.61 0.0295 0.0253
 Saturn -78510-05-21 01:11 J -26954214.58 -26954214.45 -26954214.32 0.0265 0.0222
 Uranus -78510-12-23 11:44 J -26953998.09 -26953998.01 -26953997.92 0.0132 0.0124
 Saturn -78509-05-31 12:42 J -26953838.18 -26953837.97 -26953837.75 0.0264 0.0120

Uranus	-78509-12-26 20:37 J	-26953628.77	-26953628.64	-26953628.46	0.0131	0.0103
Saturn	-78508-06-11 18:13 J	-26953461.99	-26953461.74	-26953461.49	0.0263	0.0024
Uranus	-78508-12-30 22:32 J	-26953259.78	-26953259.56	-26953259.32	0.0131	0.0064
Saturn	-78507-06-22 23:01 J	-26953085.78	-26953085.54	-26953085.30	0.0264	0.0058
Uranus	-78506-01-04 06:28 J	-26952890.45	-26952890.23	-26952889.99	0.0131	0.0048
Saturn	-78506-07-04 15:20 J	-26952709.06	-26952708.86	-26952708.65	0.0264	0.0137
Uranus	-78505-01-08 07:40 J	-26952521.44	-26952521.18	-26952520.92	0.0131	0.0007
Saturn	-78505-07-15 14:52 J	-26952332.02	-26952331.88	-26952331.75	0.0266	0.0220
Jupiter	-78505-09-12 13:11 J	-26952273.13	-26952272.95	-26952272.75	0.0491	0.0291
Uranus	-78504-01-11 14:37 J	-26952152.13	-26952151.89	-26952151.64	0.0131	0.0009
Uranus	-78503-01-15 14:37 J	-26951783.13	-26951782.89	-26951782.64	0.0131	0.0043
Uranus	-78502-01-19 20:37 J	-26951413.84	-26951413.64	-26951413.42	0.0131	0.0068
Uranus	-78501-01-23 20:08 J	-26951044.84	-26951044.66	-26951044.47	0.0131	0.0092
Mars	-78501-12-16 15:06 J	-26950717.10	-26950716.87	-26950716.64	0.1919	0.0040
Uranus	-78500-01-27 01:40 J	-26950675.47	-26950675.43	-26950675.36	0.0131	0.0127
Saturn	-78495-11-28 12:42 J	-26948544.13	-26948543.97	-26948543.79	0.0296	0.0211
Mars	-78494-06-09 11:01 J	-26948351.22	-26948351.04	-26948350.85	0.1630	0.0516
Saturn	-78494-12-13 21:06 J	-26948163.85	-26948163.62	-26948163.39	0.0297	0.0076
Jupiter	-78493-09-16 19:54 J	-26947885.92	-26947885.67	-26947885.43	0.0491	0.0050
Saturn	-78493-12-28 01:40 J	-26947783.66	-26947783.43	-26947783.19	0.0297	0.0063
Saturn	-78491-01-11 22:04 J	-26947403.75	-26947403.58	-26947403.38	0.0296	0.0196
Saturn	-78481-05-15 11:16 J	-26943627.06	-26943627.03	-26943626.99	0.0266	0.0262
Jupiter	-78481-09-21 11:44 J	-26943498.23	-26943498.01	-26943497.79	0.0492	0.0153
Saturn	-78480-05-26 12:28 J	-26943251.17	-26943250.98	-26943250.78	0.0265	0.0162
Saturn	-78479-06-06 20:52 J	-26942874.85	-26942874.63	-26942874.40	0.0264	0.0064
Saturn	-78478-06-18 09:49 J	-26942498.33	-26942498.09	-26942497.85	0.0264	0.0027
Saturn	-78477-06-28 19:11 J	-26942121.93	-26942121.70	-26942121.46	0.0264	0.0104
Saturn	-78476-07-10 06:42 J	-26941745.39	-26941745.22	-26941745.03	0.0265	0.0183
Jupiter	-78475-03-14 19:25 J	-26941497.84	-26941497.69	-26941497.53	0.0536	0.0389
Neptune	-78471-10-04 18:28 J	-26939832.76	-26939832.73	-26939832.63	0.0088	0.0086

Neptune -78470-10-07 12:13 J -26939465.14 -26939464.99 -26939464.82 0.0088 0.0072
 Jupiter -78469-09-26 03:35 J -26939110.54 -26939110.35 -26939110.16 0.0493 0.0322
 Neptune -78469-10-09 02:08 J -26939097.61 -26939097.41 -26939097.18 0.0088 0.0048
 Neptune -78468-10-11 14:37 J -26938730.13 -26938729.89 -26938729.62 0.0088 0.0035
 Neptune -78467-10-14 09:06 J -26938362.38 -26938362.12 -26938361.86 0.0088 0.0010
 Uranus -78466-06-19 01:11 J -26938114.59 -26938114.45 -26938114.29 0.0147 0.0118
 Neptune -78466-10-16 17:59 J -26937995.02 -26937994.75 -26937994.48 0.0088 0.0002
 Saturn -78466-11-22 04:47 J -26937958.41 -26937958.30 -26937958.20 0.0295 0.0268
 Uranus -78465-06-23 11:16 J -26937744.21 -26937744.03 -26937743.83 0.0148 0.0095
 Neptune -78465-10-18 15:06 J -26937627.11 -26937626.87 -26937626.61 0.0088 0.0027
 Saturn -78465-12-06 08:52 J -26937578.36 -26937578.13 -26937577.90 0.0297 0.0135
 Uranus -78464-06-28 09:06 J -26937374.36 -26937374.12 -26937373.87 0.0148 0.0046
 Neptune -78464-10-20 22:04 J -26937259.80 -26937259.58 -26937259.32 0.0088 0.0038
 Saturn -78464-12-21 12:13 J -26937198.24 -26937197.99 -26937197.74 0.0297 0.0007
 Jupiter -78463-03-19 05:01 J -26937110.50 -26937110.29 -26937110.07 0.0535 0.0184
 Uranus -78463-07-03 19:54 J -26937003.92 -26937003.67 -26937003.42 0.0148 0.0007
 Neptune -78463-10-23 19:11 J -26936891.87 -26936891.70 -26936891.49 0.0088 0.0064
 Saturn -78462-01-05 12:13 J -26936818.20 -26936817.99 -26936817.77 0.0297 0.0143
 Uranus -78462-07-08 20:52 J -26936633.88 -26936633.63 -26936633.37 0.0148 0.0026
 Neptune -78462-10-26 03:35 J -26936524.47 -26936524.35 -26936524.19 0.0088 0.0074
 Saturn -78461-01-20 06:42 J -26936438.30 -26936438.22 -26936438.11 0.0295 0.0270
 Uranus -78461-07-13 05:59 J -26936263.44 -26936263.25 -26936263.02 0.0148 0.0081
 Uranus -78460-07-18 11:30 J -26935893.18 -26935893.02 -26935892.82 0.0148 0.0107
 Jupiter -78451-03-24 07:54 J -26932722.39 -26932722.17 -26932721.95 0.0535 0.0071
 Saturn -78451-05-22 08:23 J -26932663.28 -26932663.15 -26932663.00 0.0265 0.0209
 Saturn -78450-06-02 14:23 J -26932287.13 -26932286.90 -26932286.67 0.0264 0.0106
 Saturn -78449-06-12 16:18 J -26931911.06 -26931910.82 -26931910.57 0.0263 0.0012
 Saturn -78448-06-24 03:06 J -26931534.59 -26931534.37 -26931534.14 0.0263 0.0071
 Saturn -78447-07-05 21:49 J -26931157.78 -26931157.59 -26931157.38 0.0264 0.0148
 Saturn -78446-07-17 16:18 J -26930780.93 -26930780.82 -26930780.69 0.0266 0.0232

Jupiter -78439-03-29 01:54 J -26928334.59 -26928334.42 -26928334.26 0.0535 0.0374
 Saturn -78436-11-30 02:23 J -26926992.57 -26926992.40 -26926992.20 0.0296 0.0195
 Saturn -78435-12-15 10:04 J -26926612.32 -26926612.08 -26926611.83 0.0297 0.0056
 Saturn -78434-12-30 11:59 J -26926232.23 -26926232.00 -26926231.75 0.0297 0.0084
 Saturn -78432-01-13 05:16 J -26925852.44 -26925852.28 -26925852.10 0.0296 0.0215
 Uranus -78426-12-24 02:23 J -26923316.47 -26923316.40 -26923316.29 0.0132 0.0124
 Uranus -78425-12-27 12:56 J -26922947.13 -26922946.96 -26922946.77 0.0131 0.0091
 Uranus -78424-12-31 13:40 J -26922578.15 -26922577.93 -26922577.71 0.0131 0.0072
 Uranus -78422-01-04 22:18 J -26922208.81 -26922208.57 -26922208.33 0.0131 0.0031
 Saturn -78422-05-17 09:06 J -26922076.18 -26922076.12 -26922076.02 0.0266 0.0251
 Jupiter -78422-09-12 11:01 J -26921958.23 -26921958.04 -26921957.85 0.0491 0.0307
 Uranus -78421-01-08 22:04 J -26921839.84 -26921839.58 -26921839.31 0.0131 0.0016
 Saturn -78421-05-27 15:35 J -26921700.03 -26921699.85 -26921699.65 0.0264 0.0152
 Uranus -78420-01-12 05:44 J -26921470.50 -26921470.26 -26921470.02 0.0131 0.0022
 Saturn -78420-06-08 03:06 J -26921323.60 -26921323.37 -26921323.13 0.0264 0.0051
 Uranus -78419-01-16 04:47 J -26921101.54 -26921101.30 -26921101.05 0.0131 0.0042
 Saturn -78419-06-19 10:32 J -26920947.31 -26920947.06 -26920946.81 0.0264 0.0037
 Uranus -78418-01-20 11:44 J -26920732.20 -26920732.01 -26920731.79 0.0131 0.0073
 Saturn -78418-06-30 16:18 J -26920571.04 -26920570.82 -26920570.59 0.0264 0.0112
 Uranus -78417-01-24 10:18 J -26920363.20 -26920363.07 -26920362.88 0.0131 0.0103
 Saturn -78417-07-11 09:20 J -26920194.26 -26920194.11 -26920193.94 0.0265 0.0196
 Uranus -78416-01-27 17:16 J -26919993.84 -26919993.78 -26919993.67 0.0131 0.0124
 Mars -78415-06-11 13:40 J -26919494.11 -26919493.93 -26919493.75 0.1627 0.0137
 Jupiter -78410-09-17 05:59 J -26917570.48 -26917570.25 -26917570.02 0.0491 0.0062
 Saturn -78407-11-23 06:13 J -26916407.37 -26916407.24 -26916407.11 0.0295 0.0253
 Saturn -78406-12-08 12:56 J -26916027.18 -26916026.96 -26916026.73 0.0297 0.0119
 Saturn -78405-12-22 19:54 J -26915646.91 -26915646.67 -26915646.43 0.0298 0.0023
 Saturn -78403-01-06 22:32 J -26915266.75 -26915266.56 -26915266.36 0.0297 0.0161
 Saturn -78402-01-21 17:16 J -26914886.83 -26914886.78 -26914886.72 0.0295 0.0286
 Jupiter -78398-09-21 21:35 J -26913182.84 -26913182.60 -26913182.36 0.0492 0.0135

Pluto -78394-08-12 07:25 J -26911762.44 -26911762.19 -26911761.90 0.0066 0.0012
 Jupiter -78392-03-13 10:32 J -26911183.19 -26911183.06 -26911182.92 0.0536 0.0426
 Saturn -78392-05-23 10:32 J -26911112.23 -26911112.06 -26911111.90 0.0265 0.0197
 Saturn -78391-06-03 10:47 J -26910736.28 -26910736.05 -26910735.82 0.0264 0.0093
 Saturn -78390-06-14 17:30 J -26910360.01 -26910359.77 -26910359.53 0.0263 0.0002
 Saturn -78389-06-25 07:54 J -26909983.40 -26909983.17 -26909982.95 0.0263 0.0080
 Neptune -78388-04-05 07:54 J -26909699.22 -26909699.17 -26909699.08 0.0089 0.0085
 Saturn -78388-07-06 21:20 J -26909606.81 -26909606.61 -26909606.40 0.0264 0.0157
 Neptune -78387-04-07 17:59 J -26909331.90 -26909331.75 -26909331.57 0.0089 0.0065
 Saturn -78387-07-18 11:30 J -26909230.11 -26909230.02 -26909229.92 0.0266 0.0244
 Neptune -78386-04-09 23:59 J -26908964.71 -26908964.50 -26908964.29 0.0089 0.0050
 Jupiter -78386-09-26 07:40 J -26908795.36 -26908795.18 -26908795.00 0.0492 0.0309
 Neptune -78385-04-11 13:54 J -26908597.15 -26908596.92 -26908596.68 0.0089 0.0030
 Neptune -78384-04-13 16:18 J -26908230.06 -26908229.82 -26908229.57 0.0089 0.0016
 Neptune -78383-04-16 07:54 J -26907862.42 -26907862.17 -26907861.91 0.0089 0.0005
 Neptune -78382-04-18 10:32 J -26907495.29 -26907495.06 -26907494.81 0.0089 0.0020
 Uranus -78382-06-19 14:52 J -26907432.98 -26907432.88 -26907432.75 0.0147 0.0131
 Neptune -78381-04-20 00:13 J -26907127.72 -26907127.49 -26907127.26 0.0089 0.0040
 Uranus -78381-06-24 01:11 J -26907062.65 -26907062.45 -26907062.23 0.0148 0.0078
 Jupiter -78380-03-18 15:20 J -26906795.06 -26906794.86 -26906794.65 0.0536 0.0213
 Neptune -78380-04-22 06:28 J -26906760.40 -26906760.23 -26906760.02 0.0089 0.0056
 Uranus -78380-06-28 22:32 J -26906692.80 -26906692.56 -26906692.32 0.0148 0.0048
 Neptune -78379-04-24 16:04 J -26906392.96 -26906392.83 -26906392.69 0.0089 0.0075
 Uranus -78379-07-04 09:49 J -26906322.33 -26906322.09 -26906321.84 0.0148 0.0006
 Uranus -78378-07-09 10:32 J -26905952.31 -26905952.06 -26905951.81 0.0148 0.0043
 Uranus -78377-07-13 21:06 J -26905581.83 -26905581.62 -26905581.40 0.0148 0.0071
 Saturn -78377-12-01 08:37 J -26905441.34 -26905441.14 -26905440.94 0.0297 0.0180
 Uranus -78376-07-19 01:25 J -26905211.56 -26905211.44 -26905211.27 0.0148 0.0124
 Saturn -78376-12-16 12:56 J -26905061.21 -26905060.96 -26905060.71 0.0298 0.0039
 Saturn -78375-12-31 12:28 J -26904681.21 -26904680.98 -26904680.73 0.0297 0.0103

Saturn -78373-01-15 06:28 J -26904301.38 -26904301.23 -26904301.08 0.0296 0.0234
 Jupiter -78368-03-23 11:44 J -26902407.24 -26902407.01 -26902406.77 0.0536 0.0063
 Mars -78368-06-05 12:13 J -26902333.05 -26902332.99 -26902332.92 0.1643 0.1502
 Saturn -78363-05-18 09:35 J -26900525.19 -26900525.10 -26900524.99 0.0265 0.0239
 Saturn -78362-05-29 20:23 J -26900148.85 -26900148.65 -26900148.45 0.0264 0.0138
 Saturn -78361-06-09 02:52 J -26899772.62 -26899772.38 -26899772.13 0.0263 0.0040
 Saturn -78360-06-20 05:16 J -26899396.52 -26899396.28 -26899396.03 0.0263 0.0044
 Saturn -78359-07-01 15:49 J -26899020.04 -26899019.84 -26899019.62 0.0264 0.0124
 Saturn -78358-07-13 12:56 J -26898643.10 -26898642.96 -26898642.80 0.0265 0.0208
 Jupiter -78356-03-28 11:01 J -26898019.19 -26898019.04 -26898018.88 0.0535 0.0368
 Saturn -78348-11-24 07:25 J -26894856.32 -26894856.19 -26894856.04 0.0296 0.0242
 Saturn -78347-12-09 17:44 J -26894475.98 -26894475.76 -26894475.53 0.0297 0.0107
 Saturn -78346-12-25 02:37 J -26894095.63 -26894095.39 -26894095.15 0.0298 0.0038
 Saturn -78344-01-08 04:32 J -26893715.50 -26893715.31 -26893715.11 0.0297 0.0177
 Uranus -78342-12-24 15:35 J -26892634.95 -26892634.85 -26892634.73 0.0132 0.0119
 Uranus -78341-12-28 02:23 J -26892265.56 -26892265.40 -26892265.22 0.0131 0.0096
 Uranus -78339-01-01 02:37 J -26891896.62 -26891896.39 -26891896.15 0.0131 0.0057
 Jupiter -78339-09-12 02:08 J -26891642.59 -26891642.41 -26891642.23 0.0491 0.0304
 Uranus -78338-01-05 12:13 J -26891527.21 -26891526.99 -26891526.74 0.0131 0.0041
 Uranus -78337-01-09 11:59 J -26891158.26 -26891158.00 -26891157.74 0.0131 0.0001
 Uranus -78336-01-12 20:37 J -26890788.88 -26890788.64 -26890788.39 0.0131 0.0017
 Mars -78336-06-13 08:23 J -26890637.30 -26890637.15 -26890636.99 0.1624 0.0742
 Uranus -78335-01-16 18:42 J -26890419.94 -26890419.72 -26890419.46 0.0131 0.0053
 Uranus -78334-01-21 02:37 J -26890050.57 -26890050.39 -26890050.18 0.0131 0.0078
 Uranus -78333-01-25 00:42 J -26889681.62 -26889681.47 -26889681.31 0.0131 0.0103
 Saturn -78333-05-24 05:30 J -26889561.44 -26889561.27 -26889561.08 0.0264 0.0182
 Saturn -78332-06-04 09:35 J -26889185.33 -26889185.10 -26889184.88 0.0263 0.0083
 Saturn -78331-06-15 21:06 J -26888808.85 -26888808.62 -26888808.38 0.0263 0.0008
 Saturn -78330-06-27 07:25 J -26888432.42 -26888432.19 -26888431.95 0.0263 0.0088
 Saturn -78329-07-07 15:20 J -26888056.05 -26888055.86 -26888055.66 0.0264 0.0167

Saturn -78328-07-19 09:20 J -26887679.15 -26887679.11 -26887679.04 0.0265 0.0258
 Jupiter -78327-09-16 15:49 J -26887255.09 -26887254.84 -26887254.59 0.0491 0.0063
 Saturn -78319-11-18 01:40 J -26884270.45 -26884270.43 -26884270.39 0.0295 0.0293
 Saturn -78318-12-03 06:28 J -26883890.44 -26883890.23 -26883890.01 0.0297 0.0165
 Saturn -78317-12-17 10:18 J -26883510.32 -26883510.07 -26883509.81 0.0298 0.0023
 Saturn -78315-01-01 12:28 J -26883130.21 -26883129.98 -26883129.76 0.0298 0.0119
 Jupiter -78315-09-21 02:08 J -26882867.63 -26882867.41 -26882867.18 0.0492 0.0120
 Saturn -78314-01-16 09:35 J -26882750.22 -26882750.10 -26882749.96 0.0296 0.0249
 Jupiter -78309-03-13 01:54 J -26880867.54 -26880867.42 -26880867.30 0.0536 0.0448
 Pluto -78307-02-15 16:32 J -26880162.84 -26880162.81 -26880162.78 0.0079 0.0078
 Pluto -78306-02-17 11:30 J -26879796.07 -26879796.02 -26879795.92 0.0078 0.0075
 Neptune -78306-10-06 13:40 J -26879565.00 -26879564.93 -26879564.80 0.0088 0.0082
 Neptune -78305-10-08 01:25 J -26879197.65 -26879197.44 -26879197.22 0.0088 0.0055
 Saturn -78304-05-19 13:25 J -26878974.06 -26878973.94 -26878973.82 0.0265 0.0226
 Neptune -78304-10-10 20:52 J -26878829.83 -26878829.63 -26878829.38 0.0088 0.0046
 Saturn -78303-05-30 20:52 J -26878597.84 -26878597.63 -26878597.41 0.0264 0.0127
 Jupiter -78303-09-25 22:32 J -26878479.76 -26878479.56 -26878479.37 0.0492 0.0294
 Neptune -78303-10-13 05:01 J -26878462.54 -26878462.29 -26878462.01 0.0088 0.0020
 Saturn -78302-06-10 21:06 J -26878221.87 -26878221.62 -26878221.37 0.0263 0.0033
 Neptune -78302-10-16 02:52 J -26878094.64 -26878094.38 -26878094.11 0.0088 0.0008
 Saturn -78301-06-21 02:52 J -26877845.61 -26877845.38 -26877845.14 0.0263 0.0050
 Neptune -78301-10-17 10:32 J -26877727.31 -26877727.06 -26877726.80 0.0088 0.0018
 Saturn -78300-07-02 18:13 J -26877468.94 -26877468.74 -26877468.53 0.0264 0.0131
 Neptune -78300-10-20 06:56 J -26877359.46 -26877359.21 -26877358.95 0.0088 0.0030
 Saturn -78299-07-14 11:16 J -26877092.16 -26877092.03 -26877091.88 0.0265 0.0218
 Neptune -78299-10-22 16:04 J -26876992.02 -26876991.83 -26876991.61 0.0088 0.0054
 Uranus -78298-06-20 03:35 J -26876751.50 -26876751.35 -26876751.18 0.0147 0.0113
 Neptune -78298-10-25 08:37 J -26876624.30 -26876624.14 -26876623.94 0.0088 0.0065
 Jupiter -78297-03-17 21:49 J -26876479.80 -26876479.59 -26876479.37 0.0536 0.0226
 Uranus -78297-06-24 13:54 J -26876381.11 -26876380.92 -26876380.70 0.0148 0.0089

Uranus	-78296-06-29 11:16 J	-26876011.26	-26876011.03	-26876010.77	0.0148	0.0038
Uranus	-78295-07-04 23:30 J	-26875640.77	-26875640.52	-26875640.27	0.0148	0.0002
Uranus	-78294-07-09 23:16 J	-26875270.78	-26875270.53	-26875270.28	0.0148	0.0036
Uranus	-78293-07-14 10:18 J	-26874900.25	-26874900.07	-26874899.86	0.0148	0.0091
Uranus	-78292-07-19 13:54 J	-26874530.07	-26874529.92	-26874529.75	0.0148	0.0117
Mars	-78289-06-07 06:28 J	-26873476.36	-26873476.23	-26873476.10	0.1639	0.1062
Saturn	-78289-11-25 10:04 J	-26873305.22	-26873305.08	-26873304.92	0.0296	0.0229
Saturn	-78288-12-10 19:54 J	-26872924.90	-26872924.67	-26872924.43	0.0297	0.0092
Saturn	-78287-12-26 02:08 J	-26872544.66	-26872544.41	-26872544.17	0.0298	0.0051
Saturn	-78285-01-10 00:28 J	-26872164.67	-26872164.48	-26872164.28	0.0297	0.0189
Jupiter	-78285-03-22 17:44 J	-26872091.98	-26872091.76	-26872091.54	0.0535	0.0050
Saturn	-78275-05-14 22:18 J	-26868386.57	-26868386.57	-26868386.55	0.0266	0.0266
Saturn	-78274-05-26 01:40 J	-26868010.61	-26868010.43	-26868010.24	0.0264	0.0169
Jupiter	-78273-03-27 17:01 J	-26867703.96	-26867703.79	-26867703.60	0.0534	0.0341
Saturn	-78273-06-05 11:30 J	-26867634.25	-26867634.02	-26867633.80	0.0263	0.0073
Saturn	-78272-06-16 20:23 J	-26867257.89	-26867257.65	-26867257.40	0.0263	0.0014
Saturn	-78271-06-28 00:42 J	-26866881.70	-26866881.47	-26866881.22	0.0263	0.0093
Saturn	-78270-07-09 11:44 J	-26866505.18	-26866505.01	-26866504.82	0.0264	0.0177
Saturn	-78260-11-18 18:28 J	-26862719.80	-26862719.73	-26862719.64	0.0295	0.0279
Saturn	-78259-12-04 00:42 J	-26862339.67	-26862339.47	-26862339.24	0.0297	0.0151
Saturn	-78258-12-19 08:52 J	-26861959.37	-26861959.13	-26861958.88	0.0298	0.0011
Uranus	-78258-12-25 05:30 J	-26861953.38	-26861953.27	-26861953.15	0.0132	0.0118
Mars	-78257-06-15 04:04 J	-26861780.35	-26861780.33	-26861780.30	0.1620	0.1601
Uranus	-78257-12-28 17:01 J	-26861583.97	-26861583.79	-26861583.59	0.0131	0.0085
Saturn	-78256-01-02 14:37 J	-26861579.10	-26861578.89	-26861578.67	0.0298	0.0131
Jupiter	-78256-09-11 11:59 J	-26861327.19	-26861327.00	-26861326.79	0.0491	0.0295
Uranus	-78255-01-01 16:04 J	-26861215.04	-26861214.83	-26861214.59	0.0131	0.0065
Saturn	-78255-01-17 13:11 J	-26861199.04	-26861198.95	-26861198.82	0.0297	0.0262
Uranus	-78254-01-06 02:37 J	-26860845.63	-26860845.39	-26860845.14	0.0131	0.0024
Uranus	-78253-01-10 00:56 J	-26860476.71	-26860476.46	-26860476.19	0.0131	0.0009

Uranus	-78252-01-13 10:04 J	-26860107.32	-26860107.08	-26860106.83	0.0131	0.0031
Uranus	-78251-01-17 07:40 J	-26859738.40	-26859738.18	-26859737.93	0.0131	0.0051
Uranus	-78250-01-21 16:32 J	-26859368.99	-26859368.81	-26859368.61	0.0131	0.0083
Uranus	-78249-01-25 13:25 J	-26859000.05	-26858999.94	-26858999.79	0.0131	0.0113
Saturn	-78245-05-20 14:08 J	-26857423.04	-26857422.91	-26857422.76	0.0265	0.0213
Saturn	-78244-05-31 15:35 J	-26857047.08	-26857046.85	-26857046.63	0.0263	0.0114
Jupiter	-78244-09-15 21:35 J	-26856939.83	-26856939.60	-26856939.36	0.0491	0.0071
Saturn	-78243-06-11 17:44 J	-26856671.00	-26856670.76	-26856670.52	0.0263	0.0024
Saturn	-78242-06-23 05:16 J	-26856294.51	-26856294.28	-26856294.05	0.0263	0.0056
Saturn	-78241-07-03 17:59 J	-26855917.95	-26855917.75	-26855917.53	0.0263	0.0139
Saturn	-78240-07-15 04:47 J	-26855541.42	-26855541.30	-26855541.17	0.0265	0.0230
Jupiter	-78232-09-20 19:40 J	-26852551.91	-26852551.68	-26852551.44	0.0492	0.0108
Saturn	-78230-11-27 10:18 J	-26851754.24	-26851754.07	-26851753.89	0.0296	0.0215
Saturn	-78229-12-11 16:47 J	-26851374.05	-26851373.80	-26851373.55	0.0297	0.0080
Saturn	-78228-12-26 19:40 J	-26850993.93	-26850993.68	-26850993.43	0.0298	0.0062
Saturn	-78226-01-10 17:44 J	-26850613.94	-26850613.76	-26850613.58	0.0297	0.0200
Jupiter	-78226-03-13 04:32 J	-26850552.42	-26850552.31	-26850552.20	0.0536	0.0468
Neptune	-78224-04-04 15:20 J	-26849798.86	-26849798.86	-26849798.79	0.0089	0.0088
Neptune	-78223-04-06 20:37 J	-26849431.75	-26849431.64	-26849431.52	0.0089	0.0078
Neptune	-78222-04-09 11:44 J	-26849064.21	-26849064.01	-26849063.81	0.0089	0.0053
Neptune	-78221-04-10 14:08 J	-26848697.13	-26848696.91	-26848696.70	0.0089	0.0044
Neptune	-78220-04-13 05:30 J	-26848329.51	-26848329.27	-26848329.02	0.0089	0.0018
Jupiter	-78220-09-25 03:06 J	-26848164.56	-26848164.37	-26848164.18	0.0493	0.0293
Neptune	-78219-04-15 09:06 J	-26847962.36	-26847962.12	-26847961.87	0.0089	0.0009
Neptune	-78218-04-17 21:49 J	-26847594.83	-26847594.59	-26847594.32	0.0089	0.0017
Neptune	-78217-04-19 05:30 J	-26847227.49	-26847227.27	-26847227.03	0.0089	0.0026
Mars	-78217-12-15 01:11 J	-26846987.63	-26846987.45	-26846987.26	0.1909	0.0490
Neptune	-78216-04-21 12:42 J	-26846860.16	-26846859.97	-26846859.73	0.0089	0.0051
Saturn	-78216-05-15 17:30 J	-26846835.83	-26846835.77	-26846835.70	0.0266	0.0255
Neptune	-78215-04-24 01:40 J	-26846492.60	-26846492.43	-26846492.24	0.0089	0.0060

Saturn -78215-05-27 03:06 J -26846459.56 -26846459.37 -26846459.18 0.0264 0.0157
 Jupiter -78214-03-18 03:49 J -26846164.53 -26846164.34 -26846164.15 0.0535 0.0249
 Neptune -78214-04-26 04:47 J -26846125.33 -26846125.30 -26846125.20 0.0089 0.0086
 Saturn -78214-06-07 11:44 J -26846083.24 -26846083.01 -26846082.77 0.0263 0.0061
 Uranus -78214-06-20 12:42 J -26846070.08 -26846069.97 -26846069.84 0.0147 0.0127
 Saturn -78213-06-17 13:54 J -26845707.18 -26845706.92 -26845706.67 0.0263 0.0020
 Uranus -78213-06-24 22:32 J -26845699.77 -26845699.56 -26845699.33 0.0148 0.0073
 Saturn -78212-06-28 19:40 J -26845330.90 -26845330.68 -26845330.44 0.0263 0.0099
 Uranus -78212-06-29 19:54 J -26845329.91 -26845329.67 -26845329.43 0.0148 0.0043
 Uranus -78211-07-05 07:54 J -26844959.42 -26844959.17 -26844958.92 0.0148 0.0003
 Saturn -78211-07-10 12:56 J -26844954.12 -26844953.96 -26844953.79 0.0264 0.0187
 Mars -78210-06-10 07:11 J -26844619.39 -26844619.20 -26844619.01 0.1635 0.0196
 Uranus -78210-07-10 06:56 J -26844589.44 -26844589.21 -26844588.95 0.0148 0.0051
 Uranus -78209-07-14 19:25 J -26844218.89 -26844218.69 -26844218.47 0.0148 0.0079
 Uranus -78208-07-19 21:35 J -26843848.69 -26843848.60 -26843848.47 0.0148 0.0134
 Jupiter -78202-03-23 03:06 J -26841776.60 -26841776.37 -26841776.13 0.0535 0.0039
 Saturn -78201-11-19 14:52 J -26841168.97 -26841168.88 -26841168.77 0.0295 0.0268
 Saturn -78200-12-05 00:28 J -26840788.69 -26840788.48 -26840788.26 0.0297 0.0138
 Saturn -78199-12-20 10:18 J -26840408.31 -26840408.07 -26840407.83 0.0298 0.0006
 Saturn -78197-01-04 15:35 J -26840028.06 -26840027.85 -26840027.63 0.0298 0.0144
 Saturn -78196-01-18 11:16 J -26839648.12 -26839648.03 -26839647.92 0.0297 0.0271
 Jupiter -78190-03-27 21:06 J -26837388.78 -26837388.62 -26837388.44 0.0535 0.0332
 Saturn -78186-05-22 09:06 J -26835872.28 -26835872.12 -26835871.95 0.0265 0.0200
 Saturn -78185-06-01 10:18 J -26835496.29 -26835496.07 -26835495.84 0.0263 0.0102
 Saturn -78184-06-12 19:25 J -26835119.93 -26835119.69 -26835119.46 0.0263 0.0016
 Saturn -78183-06-24 05:44 J -26834743.49 -26834743.26 -26834743.01 0.0263 0.0063
 Saturn -78182-07-05 12:28 J -26834367.19 -26834366.98 -26834366.77 0.0263 0.0146
 Saturn -78181-07-16 00:28 J -26833990.57 -26833990.48 -26833990.37 0.0264 0.0241
 Uranus -78174-12-25 17:01 J -26831271.90 -26831271.79 -26831271.64 0.0132 0.0115
 Jupiter -78173-09-10 19:40 J -26831011.87 -26831011.68 -26831011.49 0.0491 0.0291

Uranus -78173-12-29 05:16 J -26830902.45 -26830902.28 -26830902.08 0.0131 0.0090
 Uranus -78171-01-02 04:32 J -26830533.54 -26830533.31 -26830533.06 0.0131 0.0050
 Saturn -78171-11-28 02:52 J -26830203.55 -26830203.38 -26830203.18 0.0296 0.0203
 Uranus -78170-01-06 15:49 J -26830164.08 -26830163.84 -26830163.59 0.0131 0.0034
 Saturn -78170-12-13 08:37 J -26829823.39 -26829823.14 -26829822.89 0.0297 0.0066
 Uranus -78169-01-10 14:08 J -26829795.17 -26829794.91 -26829794.65 0.0131 0.0008
 Saturn -78169-12-27 13:25 J -26829443.18 -26829442.94 -26829442.71 0.0298 0.0075
 Uranus -78168-01-14 00:13 J -26829425.74 -26829425.49 -26829425.24 0.0131 0.0025
 Saturn -78167-01-11 15:06 J -26829063.03 -26829062.87 -26829062.70 0.0297 0.0210
 Uranus -78167-01-17 21:20 J -26829056.83 -26829056.61 -26829056.38 0.0131 0.0062
 Uranus -78166-01-22 06:28 J -26828687.41 -26828687.23 -26828687.04 0.0131 0.0087
 Uranus -78165-01-26 02:23 J -26828318.50 -26828318.40 -26828318.25 0.0131 0.0114
 Jupiter -78161-09-15 15:49 J -26826624.08 -26826623.84 -26826623.60 0.0492 0.0071
 Saturn -78157-05-16 17:44 J -26825284.84 -26825284.76 -26825284.66 0.0266 0.0245
 Saturn -78156-05-28 04:18 J -26824908.51 -26824908.32 -26824908.11 0.0264 0.0143
 Saturn -78155-06-08 06:56 J -26824532.46 -26824532.21 -26824531.96 0.0263 0.0052
 Saturn -78154-06-19 09:06 J -26824156.36 -26824156.12 -26824155.88 0.0263 0.0027
 Saturn -78153-06-29 21:35 J -26823779.81 -26823779.60 -26823779.38 0.0263 0.0107
 Saturn -78152-07-11 14:23 J -26823403.06 -26823402.90 -26823402.73 0.0264 0.0196
 Jupiter -78149-09-19 22:18 J -26822236.81 -26822236.57 -26822236.34 0.0492 0.0105
 Pluto -78147-08-12 18:56 J -26821544.77 -26821544.71 -26821544.57 0.0065 0.0061
 Pluto -78146-08-14 04:18 J -26821178.51 -26821178.32 -26821178.09 0.0066 0.0037
 Jupiter -78143-03-12 12:13 J -26820237.06 -26820236.99 -26820236.91 0.0536 0.0500
 Neptune -78142-10-05 13:25 J -26819665.01 -26819664.94 -26819664.84 0.0088 0.0084
 Saturn -78142-11-21 18:28 J -26819617.85 -26819617.73 -26819617.61 0.0295 0.0257
 Neptune -78141-10-07 09:49 J -26819297.23 -26819297.09 -26819296.91 0.0088 0.0070
 Saturn -78141-12-06 03:49 J -26819237.56 -26819237.34 -26819237.12 0.0297 0.0124
 Neptune -78140-10-09 17:16 J -26818929.99 -26818929.78 -26818929.54 0.0088 0.0048
 Saturn -78140-12-21 11:30 J -26818857.27 -26818857.02 -26818856.77 0.0298 0.0017
 Neptune -78139-10-12 14:52 J -26818562.11 -26818561.88 -26818561.62 0.0088 0.0033

Saturn -78138-01-05 12:42 J -26818477.18 -26818476.97 -26818476.74 0.0298 0.0155
 Neptune -78138-10-14 23:01 J -26818194.79 -26818194.54 -26818194.27 0.0088 0.0010
 Mars -78138-12-19 20:52 J -26818128.75 -26818128.63 -26818128.50 0.1917 0.1580
 Saturn -78137-01-20 05:16 J -26818097.35 -26818097.28 -26818097.18 0.0297 0.0278
 Jupiter -78137-09-24 20:23 J -26817848.83 -26817848.65 -26817848.45 0.0492 0.0292
 Neptune -78137-10-16 18:42 J -26817826.99 -26817826.72 -26817826.44 0.0088 0.0003
 Neptune -78136-10-19 05:44 J -26817459.49 -26817459.26 -26817459.00 0.0088 0.0026
 Neptune -78135-10-21 21:06 J -26817091.84 -26817091.62 -26817091.35 0.0088 0.0039
 Neptune -78134-10-24 12:56 J -26816724.12 -26816723.96 -26816723.76 0.0088 0.0062
 Neptune -78133-10-25 23:01 J -26816356.66 -26816356.54 -26816356.36 0.0088 0.0074
 Jupiter -78131-03-17 13:54 J -26815849.12 -26815848.92 -26815848.71 0.0536 0.0263
 Mars -78131-06-12 14:23 J -26815762.08 -26815761.90 -26815761.71 0.1631 0.0533
 Uranus -78130-06-20 22:47 J -26815388.69 -26815388.55 -26815388.37 0.0147 0.0111
 Uranus -78129-06-25 08:52 J -26815018.33 -26815018.13 -26815017.92 0.0147 0.0085
 Uranus -78128-06-30 06:13 J -26814648.48 -26814648.24 -26814647.99 0.0148 0.0032
 Saturn -78127-05-23 04:18 J -26814321.49 -26814321.32 -26814321.14 0.0265 0.0187
 Uranus -78127-07-05 18:13 J -26814277.99 -26814277.74 -26814277.48 0.0148 0.0008
 Saturn -78126-06-03 11:59 J -26813945.22 -26813945.00 -26813944.78 0.0263 0.0092
 Uranus -78126-07-10 16:32 J -26813908.04 -26813907.81 -26813907.55 0.0148 0.0044
 Saturn -78125-06-13 21:35 J -26813568.84 -26813568.60 -26813568.36 0.0263 0.0006
 Uranus -78125-07-15 05:16 J -26813537.45 -26813537.28 -26813537.08 0.0148 0.0098
 Saturn -78124-06-25 01:40 J -26813192.67 -26813192.43 -26813192.18 0.0263 0.0071
 Uranus -78124-07-20 06:28 J -26813167.36 -26813167.23 -26813167.08 0.0148 0.0124
 Saturn -78123-07-06 07:54 J -26812816.36 -26812816.17 -26812815.96 0.0263 0.0156
 Saturn -78122-07-18 02:23 J -26812439.45 -26812439.40 -26812439.32 0.0264 0.0254
 Jupiter -78119-03-22 09:35 J -26811461.32 -26811461.10 -26811460.88 0.0535 0.0034
 Saturn -78112-11-28 22:18 J -26808652.75 -26808652.57 -26808652.37 0.0296 0.0191
 Saturn -78111-12-14 06:42 J -26808272.46 -26808272.22 -26808271.98 0.0297 0.0053
 Saturn -78110-12-29 14:08 J -26807892.13 -26807891.91 -26807891.68 0.0298 0.0087
 Saturn -78108-01-12 17:01 J -26807511.93 -26807511.79 -26807511.62 0.0297 0.0220

Jupiter -78107-03-27 12:56 J -26807073.14 -26807072.96 -26807072.78 0.0534 0.0320
 Saturn -78098-05-18 19:40 J -26803733.78 -26803733.68 -26803733.55 0.0266 0.0233
 Saturn -78097-05-29 00:28 J -26803357.70 -26803357.48 -26803357.26 0.0264 0.0132
 Saturn -78096-06-09 01:25 J -26802981.68 -26802981.44 -26802981.20 0.0263 0.0042
 Jupiter -78095-04-01 02:08 J -26802685.43 -26802685.41 -26802685.37 0.0533 0.0528
 Saturn -78095-06-20 10:18 J -26802605.30 -26802605.07 -26802604.83 0.0263 0.0038
 Saturn -78094-07-02 00:13 J -26802228.70 -26802228.49 -26802228.26 0.0263 0.0117
 Saturn -78093-07-12 11:30 J -26801852.17 -26801852.02 -26801851.86 0.0264 0.0208
 Jupiter -78090-09-11 11:01 J -26800696.23 -26800696.04 -26800695.84 0.0491 0.0284
 Uranus -78090-12-26 05:30 J -26800590.38 -26800590.27 -26800590.12 0.0132 0.0114
 Uranus -78089-12-29 18:42 J -26800220.91 -26800220.72 -26800220.50 0.0131 0.0080
 Uranus -78087-01-02 17:30 J -26799852.00 -26799851.77 -26799851.54 0.0131 0.0059
 Uranus -78086-01-07 05:01 J -26799482.53 -26799482.29 -26799482.03 0.0131 0.0017
 Uranus -78085-01-11 02:52 J -26799113.64 -26799113.38 -26799113.12 0.0131 0.0002
 Uranus -78084-01-14 12:56 J -26798744.18 -26798743.96 -26798743.71 0.0131 0.0040
 Mars -78084-06-06 19:40 J -26798600.82 -26798600.68 -26798600.53 0.1648 0.1082
 Uranus -78083-01-18 10:18 J -26798375.30 -26798375.07 -26798374.84 0.0131 0.0059
 Saturn -78083-11-22 20:52 J -26798066.76 -26798066.63 -26798066.48 0.0295 0.0244
 Uranus -78082-01-22 19:40 J -26798005.84 -26798005.68 -26798005.49 0.0131 0.0093
 Saturn -78082-12-08 03:20 J -26797686.59 -26797686.36 -26797686.12 0.0297 0.0111
 Uranus -78081-01-26 15:49 J -26797636.92 -26797636.84 -26797636.74 0.0131 0.0123
 Saturn -78081-12-22 07:54 J -26797306.43 -26797306.17 -26797305.92 0.0298 0.0030
 Saturn -78079-01-06 07:40 J -26796926.38 -26796926.18 -26796925.96 0.0298 0.0167
 Saturn -78078-01-21 02:52 J -26796546.43 -26796546.38 -26796546.33 0.0297 0.0289
 Jupiter -78078-09-15 17:16 J -26796309.01 -26796308.78 -26796308.54 0.0491 0.0078
 Saturn -78068-05-24 05:30 J -26792770.43 -26792770.27 -26792770.09 0.0265 0.0177
 Saturn -78067-06-04 16:04 J -26792394.05 -26792393.83 -26792393.60 0.0263 0.0081
 Saturn -78066-06-15 20:23 J -26792017.91 -26792017.65 -26792017.40 0.0263 0.0005
 Jupiter -78066-09-20 14:23 J -26791921.13 -26791920.90 -26791920.67 0.0492 0.0091
 Saturn -78065-06-25 22:18 J -26791641.80 -26791641.57 -26791641.32 0.0263 0.0080

Saturn -78064-07-07 11:30 J -26791265.20 -26791265.02 -26791264.83 0.0263 0.0170
 Jupiter -78060-03-11 23:59 J -26789921.56 -26789921.50 -26789921.43 0.0536 0.0515
 Pluto -78059-02-17 13:40 J -26789579.16 -26789578.93 -26789578.67 0.0079 0.0015
 Neptune -78059-04-06 10:04 J -26789531.12 -26789531.08 -26789530.98 0.0089 0.0085
 Neptune -78058-04-08 12:28 J -26789164.13 -26789163.98 -26789163.78 0.0089 0.0063
 Neptune -78057-04-10 03:49 J -26788796.53 -26788796.34 -26788796.11 0.0089 0.0050
 Neptune -78056-04-12 08:08 J -26788429.39 -26788429.16 -26788428.93 0.0089 0.0028
 Neptune -78055-04-14 19:40 J -26788061.93 -26788061.68 -26788061.42 0.0089 0.0016
 Neptune -78054-04-17 04:04 J -26787694.57 -26787694.33 -26787694.08 0.0089 0.0006
 Jupiter -78054-09-25 00:13 J -26787533.68 -26787533.49 -26787533.28 0.0492 0.0287
 Neptune -78053-04-18 11:01 J -26787327.28 -26787327.04 -26787326.78 0.0089 0.0018
 Saturn -78053-11-30 02:52 J -26787101.56 -26787101.38 -26787101.18 0.0296 0.0180
 Neptune -78052-04-21 00:28 J -26786959.68 -26786959.48 -26786959.25 0.0089 0.0041
 Mars -78052-06-14 21:06 J -26786904.75 -26786904.62 -26786904.49 0.1628 0.1138
 Saturn -78052-12-15 12:56 J -26786721.20 -26786720.96 -26786720.72 0.0297 0.0041
 Neptune -78051-04-23 03:35 J -26786592.54 -26786592.35 -26786592.13 0.0089 0.0053
 Saturn -78051-12-30 19:54 J -26786340.89 -26786340.67 -26786340.44 0.0298 0.0101
 Neptune -78050-04-25 19:11 J -26786224.81 -26786224.70 -26786224.54 0.0089 0.0076
 Saturn -78049-01-14 19:40 J -26785960.82 -26785960.68 -26785960.52 0.0297 0.0232
 Neptune -78049-04-26 22:04 J -26785857.61 -26785857.58 -26785857.52 0.0089 0.0087
 Jupiter -78048-03-16 17:59 J -26785533.93 -26785533.75 -26785533.55 0.0535 0.0273
 Uranus -78046-06-21 11:30 J -26784707.15 -26784707.02 -26784706.88 0.0147 0.0122
 Uranus -78045-06-25 20:08 J -26784336.88 -26784336.66 -26784336.42 0.0147 0.0067
 Uranus -78044-06-30 17:30 J -26783967.00 -26783966.77 -26783966.52 0.0148 0.0038
 Uranus -78043-07-06 05:16 J -26783596.53 -26783596.28 -26783596.02 0.0148 0.0010
 Uranus -78042-07-11 03:35 J -26783226.58 -26783226.35 -26783226.11 0.0148 0.0058
 Uranus -78041-07-15 16:47 J -26782856.00 -26782855.80 -26782855.59 0.0148 0.0087
 Uranus -78040-07-20 16:47 J -26782485.85 -26782485.80 -26782485.72 0.0148 0.0143
 Saturn -78039-05-19 19:11 J -26782182.83 -26782182.70 -26782182.55 0.0266 0.0220
 Saturn -78038-05-30 19:54 J -26781806.88 -26781806.67 -26781806.44 0.0264 0.0120

Saturn -78037-06-10 03:06 J -26781430.60 -26781430.37 -26781430.13 0.0263 0.0033
 Jupiter -78036-03-21 21:49 J -26781145.81 -26781145.59 -26781145.36 0.0535 0.0028
 Saturn -78036-06-21 14:52 J -26781054.11 -26781053.88 -26781053.64 0.0263 0.0047
 Saturn -78035-07-02 23:16 J -26780677.75 -26780677.53 -26780677.31 0.0263 0.0129
 Saturn -78034-07-14 08:08 J -26780301.28 -26780301.16 -26780301.01 0.0264 0.0223
 Jupiter -78024-03-26 09:35 J -26776758.29 -26776758.10 -26776757.91 0.0534 0.0293
 Saturn -78024-11-23 21:49 J -26776515.73 -26776515.59 -26776515.41 0.0295 0.0233
 Saturn -78023-12-09 02:37 J -26776135.63 -26776135.39 -26776135.15 0.0297 0.0098
 Saturn -78022-12-24 07:25 J -26775755.43 -26775755.19 -26775754.94 0.0298 0.0044
 Saturn -78020-01-07 10:04 J -26775375.26 -26775375.08 -26775374.88 0.0298 0.0182
 Jupiter -78012-03-31 12:13 J -26772370.06 -26772369.99 -26772369.92 0.0534 0.0503
 Saturn -78010-05-14 22:32 J -26771595.58 -26771595.56 -26771595.51 0.0267 0.0263
 Saturn -78009-05-25 11:01 J -26771219.22 -26771219.04 -26771218.85 0.0265 0.0163
 Saturn -78008-06-05 16:32 J -26770843.04 -26770842.81 -26770842.56 0.0263 0.0070
 Saturn -78007-06-16 17:44 J -26770467.01 -26770466.76 -26770466.51 0.0263 0.0011
 Jupiter -78007-09-10 10:32 J -26770381.25 -26770381.06 -26770380.86 0.0491 0.0294
 Saturn -78006-06-28 02:23 J -26770090.62 -26770090.40 -26770090.18 0.0263 0.0093
 Uranus -78006-12-26 17:01 J -26769908.91 -26769908.79 -26769908.63 0.0132 0.0111
 Mars -78005-06-08 22:04 J -26769743.75 -26769743.58 -26769743.41 0.1644 0.0593
 Saturn -78005-07-08 18:56 J -26769713.88 -26769713.71 -26769713.53 0.0263 0.0184
 Uranus -78005-12-30 06:28 J -26769539.41 -26769539.23 -26769539.02 0.0132 0.0084
 Uranus -78003-01-03 05:16 J -26769170.51 -26769170.28 -26769170.03 0.0131 0.0045
 Uranus -78002-01-07 17:44 J -26768801.00 -26768800.76 -26768800.51 0.0131 0.0027
 Uranus -78001-01-11 15:20 J -26768432.11 -26768431.86 -26768431.60 0.0131 0.0016

78TH MILLENNIUM BCE

This is a list of transits of Moon in the 78th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-78000-01-15 02:23 J		-26768062.64	-26768062.40	-26768062.15	0.0131	0.0033	
Uranus	-77999-01-18 23:01 J		-26767693.75	-26767693.54	-26767693.32	0.0131	0.0072	
Uranus	-77998-01-23 09:06 J		-26767324.29	-26767324.12	-26767323.95	0.0131	0.0097	
Uranus	-77997-01-27 04:32 J		-26766955.37	-26766955.31	-26766955.22	0.0131	0.0125	
Jupiter	-77995-09-15 08:08 J		-26765993.39	-26765993.16	-26765992.93	0.0491	0.0091	
Saturn	-77995-11-17 04:18 J		-26765930.34	-26765930.32	-26765930.29	0.0294	0.0292	
Saturn	-77994-12-02 13:11 J		-26765550.14	-26765549.95	-26765549.74	0.0296	0.0166	
Saturn	-77993-12-16 21:06 J		-26765169.86	-26765169.62	-26765169.37	0.0297	0.0027	
Saturn	-77991-01-01 00:28 J		-26764789.71	-26764789.48	-26764789.24	0.0298	0.0115	
Saturn	-77990-01-15 20:37 J		-26764409.78	-26764409.64	-26764409.49	0.0297	0.0243	
Jupiter	-77983-09-19 14:23 J		-26761606.14	-26761605.90	-26761605.65	0.0492	0.0075	
Saturn	-77980-05-20 16:04 J		-26760631.98	-26760631.83	-26760631.66	0.0266	0.0203	
Saturn	-77979-05-31 22:18 J		-26760255.78	-26760255.57	-26760255.35	0.0265	0.0107	
Saturn	-77978-06-12 09:49 J		-26759879.33	-26759879.09	-26759878.85	0.0263	0.0023	
Neptune	-77978-10-04 23:30 J		-26759764.53	-26759764.52	-26759764.45	0.0088	0.0088	
Saturn	-77977-06-22 17:30 J		-26759503.01	-26759502.77	-26759502.52	0.0263	0.0058	
Neptune	-77977-10-06 06:56 J		-26759397.30	-26759397.21	-26759397.07	0.0088	0.0079	
Saturn	-77976-07-03 22:04 J		-26759126.79	-26759126.58	-26759126.37	0.0263	0.0143	
Neptune	-77976-10-09 04:04 J		-26759029.52	-26759029.33	-26759029.09	0.0088	0.0053	
Saturn	-77975-07-15 12:56 J		-26758750.05	-26758749.96	-26758749.86	0.0264	0.0239	
Neptune	-77975-10-11 13:11 J		-26758662.16	-26758661.95	-26758661.71	0.0088	0.0044	
Neptune	-77974-10-14 07:40 J		-26758294.44	-26758294.18	-26758293.91	0.0088	0.0017	
Neptune	-77973-10-15 19:54 J		-26757926.92	-26757926.67	-26757926.41	0.0088	0.0008	
Neptune	-77972-10-18 09:35 J		-26757559.37	-26757559.10	-26757558.83	0.0088	0.0019	
Jupiter	-77971-09-24 06:42 J		-26757218.41	-26757218.22	-26757218.03	0.0492	0.0283	

Neptune -77971-10-21 02:37 J -26757191.62 -26757191.39 -26757191.13 0.0088 0.0030
 Neptune -77970-10-23 11:59 J -26756824.19 -26756824.00 -26756823.76 0.0088 0.0055
 Neptune -77969-10-25 09:06 J -26756456.28 -26756456.12 -26756455.93 0.0088 0.0064
 Jupiter -77965-03-16 01:54 J -26755218.61 -26755218.42 -26755218.23 0.0535 0.0297
 Saturn -77965-11-25 02:23 J -26754964.56 -26754964.40 -26754964.22 0.0295 0.0217
 Saturn -77964-12-10 09:20 J -26754584.34 -26754584.11 -26754583.87 0.0297 0.0083
 Saturn -77963-12-25 17:16 J -26754204.02 -26754203.78 -26754203.55 0.0298 0.0059
 Uranus -77962-06-22 03:06 J -26754025.54 -26754025.37 -26754025.20 0.0147 0.0105
 Saturn -77961-01-09 21:20 J -26753823.79 -26753823.61 -26753823.43 0.0298 0.0196
 Uranus -77961-06-26 11:01 J -26753655.24 -26753655.04 -26753654.81 0.0147 0.0078
 Uranus -77960-07-01 09:06 J -26753285.37 -26753285.12 -26753284.88 0.0148 0.0024
 Uranus -77959-07-06 20:23 J -26752914.90 -26752914.65 -26752914.40 0.0148 0.0015
 Uranus -77958-07-11 18:13 J -26752544.97 -26752544.74 -26752544.50 0.0148 0.0053
 Uranus -77957-07-16 06:56 J -26752174.37 -26752174.21 -26752174.03 0.0148 0.0108
 Uranus -77956-07-21 06:13 J -26751804.33 -26751804.24 -26751804.12 0.0148 0.0135
 Jupiter -77953-03-20 16:32 J -26750831.04 -26750830.81 -26750830.58 0.0535 0.0010
 Saturn -77951-05-16 06:42 J -26750044.30 -26750044.22 -26750044.13 0.0267 0.0247
 Saturn -77950-05-27 15:20 J -26749668.05 -26749667.86 -26749667.65 0.0265 0.0149
 Saturn -77949-06-06 16:04 J -26749292.07 -26749291.83 -26749291.58 0.0263 0.0060
 Saturn -77948-06-17 22:04 J -26748915.82 -26748915.58 -26748915.35 0.0263 0.0022
 Saturn -77947-06-29 11:16 J -26748539.25 -26748539.03 -26748538.81 0.0263 0.0105
 Saturn -77946-07-10 23:44 J -26748162.66 -26748162.51 -26748162.33 0.0263 0.0198
 Jupiter -77941-03-25 20:52 J -26746442.81 -26746442.63 -26746442.43 0.0535 0.0272
 Saturn -77936-11-18 18:42 J -26744378.80 -26744378.72 -26744378.62 0.0294 0.0274
 Saturn -77935-12-04 00:42 J -26743998.69 -26743998.47 -26743998.25 0.0296 0.0147
 Saturn -77934-12-19 05:01 J -26743618.55 -26743618.29 -26743618.03 0.0297 0.0010
 Mars -77933-12-14 16:47 J -26743257.00 -26743256.80 -26743256.61 0.1900 0.0481
 Saturn -77932-01-02 05:44 J -26743238.48 -26743238.26 -26743238.02 0.0298 0.0130
 Saturn -77931-01-17 02:23 J -26742858.52 -26742858.40 -26742858.28 0.0297 0.0258
 Jupiter -77929-03-30 16:18 J -26742054.92 -26742054.82 -26742054.72 0.0534 0.0480

Mars -77926-06-11 17:30 J -26740886.94 -26740886.77 -26740886.59 0.1640 0.0181
 Jupiter -77924-09-09 21:06 J -26740065.80 -26740065.62 -26740065.44 0.0491 0.0308
 Uranus -77922-12-27 06:42 J -26739227.36 -26739227.22 -26739227.07 0.0132 0.0108
 Saturn -77921-05-21 18:13 J -26739080.90 -26739080.74 -26739080.57 0.0266 0.0188
 Uranus -77921-12-30 20:23 J -26738857.86 -26738857.65 -26738857.43 0.0132 0.0074
 Saturn -77920-06-02 05:59 J -26738704.46 -26738704.25 -26738704.03 0.0265 0.0095
 Uranus -77919-01-03 18:42 J -26738488.94 -26738488.72 -26738488.47 0.0131 0.0053
 Saturn -77919-06-13 14:37 J -26738328.14 -26738327.89 -26738327.65 0.0264 0.0011
 Uranus -77918-01-08 07:11 J -26738119.45 -26738119.20 -26738118.94 0.0131 0.0010
 Saturn -77918-06-24 17:30 J -26737952.01 -26737951.77 -26737951.52 0.0263 0.0069
 Uranus -77917-01-12 04:32 J -26737750.56 -26737750.31 -26737750.05 0.0131 0.0006
 Saturn -77917-07-05 03:06 J -26737575.56 -26737575.37 -26737575.17 0.0263 0.0158
 Uranus -77916-01-15 15:20 J -26737381.09 -26737380.86 -26737380.62 0.0131 0.0048
 Saturn -77916-07-16 23:44 J -26737198.56 -26737198.51 -26737198.46 0.0264 0.0257
 Uranus -77915-01-19 11:44 J -26737012.22 -26737012.01 -26737011.78 0.0131 0.0069
 Uranus -77914-01-23 21:49 J -26736642.73 -26736642.59 -26736642.42 0.0131 0.0103
 Jupiter -77912-09-14 04:32 J -26735678.55 -26735678.31 -26735678.07 0.0492 0.0112
 Saturn -77906-11-27 15:49 J -26733413.01 -26733412.84 -26733412.65 0.0295 0.0200
 Saturn -77905-12-12 01:25 J -26733032.67 -26733032.44 -26733032.20 0.0297 0.0065
 Saturn -77904-12-27 09:49 J -26732652.32 -26732652.09 -26732651.86 0.0298 0.0076
 Saturn -77902-01-11 11:59 J -26732272.16 -26732272.00 -26732271.82 0.0298 0.0213
 Jupiter -77900-09-18 21:20 J -26731290.84 -26731290.61 -26731290.38 0.0492 0.0055
 Pluto -77899-08-14 08:08 J -26730961.37 -26730961.16 -26730960.95 0.0065 0.0039
 Pluto -77898-08-16 02:08 J -26730594.46 -26730594.41 -26730594.31 0.0066 0.0063
 Neptune -77895-04-05 11:44 J -26729631.07 -26729631.01 -26729630.93 0.0089 0.0085
 Neptune -77894-04-08 02:23 J -26729263.51 -26729263.40 -26729263.25 0.0089 0.0076
 Neptune -77893-04-09 07:40 J -26728896.36 -26728896.18 -26728895.97 0.0089 0.0052
 Neptune -77892-04-11 19:25 J -26728528.92 -26728528.69 -26728528.47 0.0089 0.0042
 Saturn -77892-05-17 14:08 J -26728493.03 -26728492.91 -26728492.79 0.0267 0.0230
 Neptune -77891-04-14 04:47 J -26728161.53 -26728161.30 -26728161.06 0.0089 0.0018

Saturn -77891-05-28 17:01 J -26728116.99 -26728116.79 -26728116.56 0.0265 0.0133
 Neptune -77890-04-16 10:32 J -26727794.31 -26727794.06 -26727793.79 0.0089 0.0008
 Saturn -77890-06-08 21:06 J -26727740.86 -26727740.62 -26727740.38 0.0263 0.0045
 Neptune -77889-04-18 00:28 J -26727426.71 -26727426.48 -26727426.23 0.0089 0.0017
 Saturn -77889-06-19 08:52 J -26727364.37 -26727364.13 -26727363.90 0.0263 0.0034
 Neptune -77888-04-20 03:06 J -26727059.60 -26727059.37 -26727059.12 0.0089 0.0026
 Saturn -77888-06-30 19:40 J -26726987.89 -26726987.68 -26726987.45 0.0263 0.0119
 Jupiter -77888-09-23 12:13 J -26726903.20 -26726902.99 -26726902.78 0.0492 0.0266
 Neptune -77887-04-22 18:42 J -26726691.91 -26726691.72 -26726691.49 0.0089 0.0051
 Saturn -77887-07-12 03:20 J -26726611.50 -26726611.36 -26726611.21 0.0264 0.0215
 Neptune -77886-04-24 21:20 J -26726324.77 -26726324.61 -26726324.41 0.0089 0.0060
 Neptune -77885-04-26 11:16 J -26725957.09 -26725957.03 -26725956.92 0.0089 0.0085
 Jupiter -77882-03-15 21:35 J -26724903.77 -26724903.60 -26724903.41 0.0536 0.0320
 Uranus -77879-06-17 19:40 J -26723713.72 -26723713.68 -26723713.61 0.0147 0.0143
 Uranus -77878-06-22 18:13 J -26723343.88 -26723343.74 -26723343.58 0.0147 0.0115
 Uranus -77877-06-27 01:25 J -26722973.67 -26722973.44 -26722973.20 0.0147 0.0059
 Saturn -77877-11-20 09:06 J -26722827.24 -26722827.12 -26722826.99 0.0294 0.0255
 Uranus -77876-07-01 23:30 J -26722603.76 -26722603.52 -26722603.27 0.0147 0.0028
 Saturn -77876-12-05 12:13 J -26722447.22 -26722446.99 -26722446.75 0.0296 0.0129
 Uranus -77875-07-07 10:18 J -26722233.33 -26722233.07 -26722232.82 0.0148 0.0020
 Saturn -77875-12-20 16:04 J -26722067.08 -26722066.83 -26722066.58 0.0297 0.0009
 Uranus -77874-07-12 08:08 J -26721863.37 -26721863.16 -26721862.92 0.0148 0.0069
 Saturn -77873-01-04 18:42 J -26721686.93 -26721686.72 -26721686.51 0.0298 0.0148
 Uranus -77873-07-16 21:35 J -26721492.79 -26721492.60 -26721492.41 0.0148 0.0098
 Saturn -77872-01-18 17:30 J -26721306.85 -26721306.77 -26721306.68 0.0297 0.0275
 Jupiter -77870-03-21 03:20 J -26720515.58 -26720515.36 -26720515.14 0.0535 0.0006
 Saturn -77862-05-24 03:49 J -26717529.50 -26717529.34 -26717529.15 0.0266 0.0174
 Saturn -77861-06-03 14:23 J -26717153.13 -26717152.90 -26717152.66 0.0265 0.0078
 Saturn -77860-06-14 17:01 J -26716777.04 -26716776.79 -26716776.54 0.0264 0.0002
 Saturn -77859-06-25 22:32 J -26716400.79 -26716400.56 -26716400.33 0.0263 0.0082

Jupiter -77858-03-25 20:52 J -26716127.84 -26716127.63 -26716127.42 0.0534 0.0243
 Saturn -77858-07-07 14:08 J -26716024.08 -26716023.91 -26716023.72 0.0264 0.0175
 Mars -77854-12-18 22:04 J -26714398.73 -26714398.58 -26714398.42 0.1907 0.1047
 Mars -77847-06-13 13:54 J -26712030.07 -26712029.92 -26712029.76 0.1636 0.0899
 Saturn -77847-11-29 12:42 J -26711861.15 -26711860.97 -26711860.77 0.0296 0.0181
 Jupiter -77846-03-30 13:11 J -26711740.07 -26711739.95 -26711739.83 0.0534 0.0443
 Saturn -77846-12-14 21:49 J -26711480.83 -26711480.59 -26711480.35 0.0297 0.0043
 Saturn -77845-12-29 03:06 J -26711100.60 -26711100.37 -26711100.13 0.0298 0.0098
 Saturn -77843-01-13 01:11 J -26710720.60 -26710720.45 -26710720.28 0.0298 0.0230
 Jupiter -77841-09-08 18:42 J -26709750.90 -26709750.72 -26709750.53 0.0491 0.0324
 Uranus -77838-12-27 18:13 J -26708545.87 -26708545.74 -26708545.57 0.0132 0.0106
 Uranus -77837-12-31 07:54 J -26708176.37 -26708176.17 -26708175.95 0.0132 0.0078
 Uranus -77835-01-04 06:42 J -26707807.46 -26707807.22 -26707806.97 0.0131 0.0038
 Uranus -77834-01-08 18:56 J -26707437.95 -26707437.71 -26707437.44 0.0131 0.0021
 Uranus -77833-01-12 16:18 J -26707069.06 -26707068.82 -26707068.56 0.0131 0.0025
 Saturn -77833-05-18 17:44 J -26706941.89 -26706941.76 -26706941.60 0.0267 0.0215
 Uranus -77832-01-16 03:35 J -26706699.58 -26706699.35 -26706699.10 0.0131 0.0041
 Saturn -77832-05-29 21:35 J -26706565.81 -26706565.60 -26706565.38 0.0265 0.0117
 Uranus -77831-01-19 23:59 J -26706330.68 -26706330.50 -26706330.29 0.0131 0.0081
 Saturn -77831-06-10 07:54 J -26706189.40 -26706189.17 -26706188.93 0.0264 0.0031
 Uranus -77830-01-24 10:32 J -26705961.21 -26705961.06 -26705960.91 0.0131 0.0106
 Saturn -77830-06-21 18:56 J -26705812.94 -26705812.71 -26705812.46 0.0263 0.0048
 Saturn -77829-07-02 00:42 J -26705436.68 -26705436.47 -26705436.24 0.0263 0.0134
 Jupiter -77829-09-13 10:04 J -26705363.30 -26705363.08 -26705362.86 0.0491 0.0141
 Saturn -77828-07-13 11:16 J -26705060.15 -26705060.03 -26705059.92 0.0264 0.0230
 Saturn -77818-11-22 23:59 J -26701275.65 -26701275.50 -26701275.34 0.0294 0.0237
 Jupiter -77817-09-18 00:28 J -26700975.73 -26700975.48 -26700975.23 0.0491 0.0029
 Saturn -77817-12-07 04:32 J -26700895.54 -26700895.31 -26700895.07 0.0296 0.0105
 Saturn -77816-12-22 11:01 J -26700515.28 -26700515.04 -26700514.79 0.0297 0.0034
 Saturn -77814-01-06 16:04 J -26700135.02 -26700134.83 -26700134.63 0.0297 0.0169

Saturn -77813-01-21 15:06 J -26699754.91 -26699754.87 -26699754.83 0.0296 0.0292
 Neptune -77813-10-05 18:13 J -26699496.82 -26699496.74 -26699496.59 0.0088 0.0081
 Neptune -77812-10-08 04:04 J -26699129.47 -26699129.33 -26699129.13 0.0088 0.0066
 Pluto -77811-02-19 15:49 J -26698995.09 -26698994.84 -26698994.59 0.0079 0.0018
 Neptune -77811-10-10 21:06 J -26698761.84 -26698761.62 -26698761.36 0.0088 0.0045
 Neptune -77810-10-13 11:44 J -26698394.24 -26698394.01 -26698393.76 0.0088 0.0030
 Neptune -77809-10-14 23:59 J -26698026.77 -26698026.50 -26698026.22 0.0088 0.0009
 Neptune -77808-10-17 18:42 J -26697658.97 -26697658.72 -26697658.46 0.0088 0.0006
 Neptune -77807-10-20 02:52 J -26697291.63 -26697291.38 -26697291.11 0.0088 0.0026
 Neptune -77806-10-22 23:59 J -26696923.72 -26696923.50 -26696923.25 0.0088 0.0039
 Jupiter -77805-09-22 06:28 J -26696588.43 -26696588.23 -26696588.02 0.0492 0.0243
 Neptune -77805-10-24 07:11 J -26696556.38 -26696556.20 -26696556.01 0.0088 0.0062
 Saturn -77804-05-14 01:25 J -26696354.49 -26696354.44 -26696354.38 0.0268 0.0260
 Neptune -77804-10-27 03:35 J -26696188.46 -26696188.35 -26696188.17 0.0088 0.0075
 Saturn -77803-05-25 14:37 J -26695978.07 -26695977.89 -26695977.68 0.0266 0.0156
 Saturn -77802-06-05 19:25 J -26695601.93 -26695601.69 -26695601.45 0.0265 0.0063
 Saturn -77801-06-15 22:18 J -26695225.81 -26695225.57 -26695225.32 0.0264 0.0016
 Mars -77800-06-07 13:11 J -26694869.11 -26694868.95 -26694868.78 0.1654 0.0867
 Saturn -77800-06-27 10:32 J -26694849.28 -26694849.06 -26694848.84 0.0263 0.0099
 Jupiter -77799-03-15 06:13 J -26694588.41 -26694588.24 -26694588.07 0.0535 0.0336
 Saturn -77799-07-09 01:54 J -26694472.57 -26694472.42 -26694472.24 0.0264 0.0190
 Uranus -77794-06-23 07:40 J -26692662.35 -26692662.18 -26692661.99 0.0147 0.0099
 Uranus -77793-06-27 14:08 J -26692292.12 -26692291.91 -26692291.67 0.0147 0.0071
 Jupiter -77793-09-27 03:20 J -26692200.38 -26692200.36 -26692200.33 0.0493 0.0490
 Uranus -77792-07-02 13:11 J -26691922.19 -26691921.95 -26691921.70 0.0147 0.0015
 Uranus -77791-07-07 23:30 J -26691551.78 -26691551.52 -26691551.27 0.0148 0.0025
 Uranus -77790-07-12 21:35 J -26691181.82 -26691181.60 -26691181.36 0.0148 0.0064
 Uranus -77789-07-17 09:49 J -26690811.22 -26690811.09 -26690810.92 0.0148 0.0119
 Saturn -77789-11-16 04:18 J -26690689.36 -26690689.32 -26690689.26 0.0293 0.0286
 Uranus -77788-07-22 08:52 J -26690441.15 -26690441.13 -26690441.07 0.0148 0.0146

Saturn	-77788-12-01 11:01 J	-26690309.24	-26690309.04	-26690308.83	0.0296	0.0159
Jupiter	-77787-03-19 18:56 J	-26690200.95	-26690200.71	-26690200.48	0.0535	0.0049
Saturn	-77787-12-16 17:16 J	-26689929.04	-26689928.78	-26689928.53	0.0297	0.0019
Saturn	-77786-12-31 18:56 J	-26689548.94	-26689548.71	-26689548.47	0.0298	0.0119
Saturn	-77784-01-14 15:20 J	-26689168.99	-26689168.86	-26689168.72	0.0298	0.0248
Jupiter	-77775-03-24 16:04 J	-26685813.03	-26685812.83	-26685812.63	0.0535	0.0199
Saturn	-77774-05-20 23:16 J	-26685390.68	-26685390.53	-26685390.35	0.0266	0.0199
Saturn	-77773-05-31 09:20 J	-26685014.33	-26685014.11	-26685013.90	0.0265	0.0102
Saturn	-77772-06-11 20:23 J	-26684637.89	-26684637.65	-26684637.41	0.0263	0.0015
Saturn	-77771-06-23 01:25 J	-26684261.68	-26684261.44	-26684261.19	0.0263	0.0064
Saturn	-77770-07-04 06:56 J	-26683885.40	-26683885.21	-26683885.00	0.0263	0.0150
Saturn	-77769-07-14 23:44 J	-26683508.58	-26683508.51	-26683508.42	0.0264	0.0248
Mars	-77768-06-15 18:28 J	-26683172.81	-26683172.73	-26683172.65	0.1632	0.1484
Jupiter	-77763-03-29 15:49 J	-26681424.98	-26681424.84	-26681424.68	0.0534	0.0406
Saturn	-77759-11-24 19:25 J	-26679723.85	-26679723.69	-26679723.52	0.0295	0.0218
Jupiter	-77758-09-08 23:16 J	-26679435.69	-26679435.53	-26679435.37	0.0491	0.0346
Saturn	-77758-12-10 02:52 J	-26679343.61	-26679343.38	-26679343.14	0.0297	0.0083
Saturn	-77757-12-24 11:16 J	-26678963.26	-26678963.03	-26678962.79	0.0297	0.0057
Saturn	-77755-01-08 15:49 J	-26678583.01	-26678582.84	-26678582.65	0.0297	0.0192
Uranus	-77754-12-28 06:28 J	-26677864.37	-26677864.23	-26677864.06	0.0132	0.0103
Uranus	-77753-12-31 20:08 J	-26677494.87	-26677494.66	-26677494.43	0.0132	0.0069
Uranus	-77751-01-04 19:11 J	-26677125.93	-26677125.70	-26677125.46	0.0131	0.0046
Uranus	-77750-01-09 06:56 J	-26676756.47	-26676756.21	-26676755.95	0.0131	0.0003
Uranus	-77749-01-13 04:18 J	-26676387.57	-26676387.32	-26676387.06	0.0131	0.0013
Uranus	-77748-01-16 15:06 J	-26676018.10	-26676017.87	-26676017.63	0.0131	0.0056
Uranus	-77747-01-20 11:16 J	-26675649.22	-26675649.03	-26675648.81	0.0131	0.0077
Uranus	-77746-01-24 21:20 J	-26675279.72	-26675279.61	-26675279.46	0.0131	0.0113
Jupiter	-77746-09-13 09:20 J	-26675048.35	-26675048.11	-26675047.88	0.0491	0.0173
Saturn	-77745-05-15 14:23 J	-26674803.00	-26674802.90	-26674802.81	0.0268	0.0244
Saturn	-77744-05-26 21:20 J	-26674426.81	-26674426.61	-26674426.39	0.0266	0.0141

Saturn -77743-06-06 23:44 J -26674050.75 -26674050.51 -26674050.27 0.0264 0.0049
 Saturn -77742-06-18 08:52 J -26673674.36 -26673674.13 -26673673.89 0.0264 0.0033
 Saturn -77741-06-28 22:47 J -26673297.76 -26673297.55 -26673297.32 0.0264 0.0114
 Saturn -77740-07-10 09:20 J -26672921.26 -26672921.11 -26672920.94 0.0264 0.0207
 Jupiter -77734-09-17 18:42 J -26670660.95 -26670660.72 -26670660.48 0.0492 0.0004
 Neptune -77730-04-07 07:54 J -26669363.23 -26669363.17 -26669363.05 0.0089 0.0083
 Saturn -77730-11-19 01:54 J -26669137.52 -26669137.42 -26669137.32 0.0293 0.0268
 Neptune -77729-04-08 17:59 J -26668995.92 -26668995.75 -26668995.53 0.0089 0.0060
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 Neptune -77728-04-11 04:18 J -26668628.50 -26668628.32 -26668628.10 0.0089 0.0049
 Saturn -77728-12-18 10:18 J -26668377.33 -26668377.07 -26668376.81 0.0298 0.0003
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 Neptune -77726-04-16 01:11 J -26667893.69 -26667893.45 -26667893.21 0.0089 0.0015
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 Neptune -77725-04-17 03:35 J -26667526.59 -26667526.35 -26667526.09 0.0089 0.0008
 Neptune -77724-04-19 19:25 J -26667158.93 -26667158.69 -26667158.43 0.0089 0.0019
 Neptune -77723-04-21 22:18 J -26666791.77 -26666791.57 -26666791.33 0.0089 0.0042
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 Jupiter -77722-09-22 15:49 J -26666273.06 -26666272.84 -26666272.63 0.0492 0.0226
 Neptune -77721-04-25 18:42 J -26666056.83 -26666056.72 -26666056.58 0.0089 0.0076
 Mars -77721-06-09 23:30 J -26666011.71 -26666011.52 -26666011.32 0.1649 0.0242
 Neptune -77720-04-28 02:37 J -26665689.42 -26665689.39 -26665689.29 0.0089 0.0086
 Jupiter -77716-03-13 18:28 J -26664273.88 -26664273.73 -26664273.56 0.0535 0.0382
 Saturn -77715-05-22 09:49 J -26663839.26 -26663839.09 -26663838.92 0.0266 0.0186
 Saturn -77714-06-02 22:32 J -26663462.79 -26663462.56 -26663462.34 0.0264 0.0087
 Saturn -77713-06-13 04:32 J -26663086.56 -26663086.31 -26663086.06 0.0263 0.0005
 Saturn -77712-06-24 06:56 J -26662710.45 -26662710.21 -26662709.97 0.0263 0.0078
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 Saturn -77711-07-05 18:42 J -26662333.89 -26662333.72 -26662333.53 0.0263 0.0168

Uranus -77710-06-23 17:59 J -26661980.90 -26661980.75 -26661980.58 0.0147 0.0110
 Jupiter -77710-09-26 21:20 J -26661885.68 -26661885.61 -26661885.54 0.0492 0.0468
 Uranus -77709-06-27 22:47 J -26661610.78 -26661610.55 -26661610.29 0.0147 0.0054
 Uranus -77708-07-02 22:47 J -26661240.79 -26661240.55 -26661240.31 0.0147 0.0022
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 Saturn -77699-12-12 04:32 J -26657791.54 -26657791.31 -26657791.07 0.0297 0.0061
 Saturn -77698-12-27 11:30 J -26657411.25 -26657411.02 -26657410.78 0.0298 0.0083
 Saturn -77696-01-10 12:42 J -26657031.13 -26657030.97 -26657030.79 0.0297 0.0217
 Jupiter -77692-03-23 20:23 J -26655497.87 -26655497.65 -26655497.43 0.0535 0.0167
 Saturn -77686-05-17 23:44 J -26653251.63 -26653251.51 -26653251.38 0.0268 0.0230
 Saturn -77685-05-28 02:08 J -26652875.62 -26652875.41 -26652875.18 0.0266 0.0126
 Saturn -77684-06-08 09:20 J -26652499.34 -26652499.11 -26652498.87 0.0264 0.0036
 Saturn -77683-06-19 21:20 J -26652122.84 -26652122.61 -26652122.37 0.0264 0.0047
 Saturn -77682-07-01 06:13 J -26651746.45 -26651746.24 -26651746.02 0.0263 0.0131
 Saturn -77681-07-11 13:40 J -26651370.05 -26651369.93 -26651369.79 0.0264 0.0226
 Jupiter -77680-03-28 12:42 J -26651110.12 -26651109.97 -26651109.81 0.0534 0.0374
 Jupiter -77675-09-07 22:32 J -26649120.72 -26649120.56 -26649120.39 0.0491 0.0370
 Saturn -77671-11-20 16:47 J -26647585.92 -26647585.80 -26647585.66 0.0294 0.0253
 Uranus -77671-12-24 16:18 J -26647551.86 -26647551.82 -26647551.76 0.0132 0.0129
 Saturn -77670-12-05 20:23 J -26647205.87 -26647205.65 -26647205.40 0.0296 0.0122
 Uranus -77670-12-28 17:01 J -26647182.93 -26647182.79 -26647182.62 0.0132 0.0102
 Saturn -77669-12-20 02:37 J -26646825.64 -26646825.39 -26646825.14 0.0298 0.0024
 Uranus -77668-01-01 05:59 J -26646813.47 -26646813.25 -26646813.03 0.0132 0.0072
 Saturn -77667-01-04 07:25 J -26646445.38 -26646445.19 -26646444.98 0.0298 0.0166
 Uranus -77667-01-05 05:01 J -26646444.52 -26646444.29 -26646444.04 0.0131 0.0033
 Uranus -77666-01-09 16:47 J -26646075.06 -26646074.80 -26646074.54 0.0131 0.0014

Saturn -77666-01-19 08:37 J -26646065.18 -26646065.14 -26646065.10 0.0297 0.0292
 Uranus -77665-01-13 14:52 J -26645706.13 -26645705.88 -26645705.64 0.0131 0.0030
 Uranus -77664-01-17 01:11 J -26645336.68 -26645336.45 -26645336.20 0.0131 0.0048
 Uranus -77663-01-20 22:18 J -26644967.74 -26644967.57 -26644967.38 0.0131 0.0089
 Jupiter -77663-09-12 08:52 J -26644733.33 -26644733.13 -26644732.91 0.0491 0.0197
 Uranus -77662-01-25 07:40 J -26644598.29 -26644598.18 -26644598.03 0.0131 0.0114
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 Saturn -77655-06-04 06:42 J -26641911.45 -26641911.22 -26641910.98 0.0264 0.0072
 Saturn -77654-06-15 08:23 J -26641535.40 -26641535.15 -26641534.90 0.0263 0.0011
 Saturn -77653-06-25 15:35 J -26641159.07 -26641158.85 -26641158.63 0.0263 0.0094
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 Pluto -77651-08-16 04:18 J -26640377.56 -26640377.32 -26640377.05 0.0065 0.0022
 Jupiter -77651-09-17 04:04 J -26640345.57 -26640345.33 -26640345.08 0.0491 0.0019
 Neptune -77649-10-04 20:52 J -26639596.69 -26639596.63 -26639596.53 0.0088 0.0084
 Mars -77649-12-13 02:37 J -26639527.58 -26639527.39 -26639527.19 0.1888 0.0928
 Neptune -77648-10-07 11:59 J -26639229.12 -26639229.00 -26639228.82 0.0088 0.0075
 Neptune -77647-10-10 03:49 J -26638861.54 -26638861.34 -26638861.11 0.0088 0.0049
 Neptune -77646-10-12 14:37 J -26638494.13 -26638493.89 -26638493.64 0.0088 0.0040
 Neptune -77645-10-14 10:32 J -26638126.32 -26638126.06 -26638125.80 0.0088 0.0014
 Neptune -77644-10-16 18:13 J -26637759.00 -26637758.74 -26637758.47 0.0088 0.0006
 Neptune -77643-10-19 15:49 J -26637391.09 -26637390.84 -26637390.57 0.0088 0.0021
 Mars -77642-06-13 06:13 J -26637154.41 -26637154.24 -26637154.07 0.1644 0.0630
 Neptune -77642-10-21 23:01 J -26637023.78 -26637023.54 -26637023.29 0.0088 0.0030
 Neptune -77641-10-23 19:40 J -26636655.88 -26636655.68 -26636655.46 0.0088 0.0056
 Saturn -77641-11-28 19:25 J -26636619.88 -26636619.69 -26636619.50 0.0295 0.0180
 Neptune -77640-10-26 05:30 J -26636288.43 -26636288.27 -26636288.08 0.0088 0.0065
 Saturn -77640-12-14 02:52 J -26636239.63 -26636239.38 -26636239.13 0.0297 0.0039
 Jupiter -77639-09-21 09:20 J -26635958.32 -26635958.11 -26635957.89 0.0492 0.0206
 Saturn -77639-12-29 06:42 J -26635859.45 -26635859.22 -26635858.97 0.0298 0.0105
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Jupiter -77633-03-12 22:47 J -26633958.68 -26633958.55 -26633958.40 0.0536 0.0406
 Saturn -77627-05-19 03:20 J -26631700.49 -26631700.36 -26631700.19 0.0267 0.0213
 Uranus -77627-06-18 23:59 J -26631669.50 -26631669.50 -26631669.47 0.0147 0.0147
 Jupiter -77627-09-26 03:35 J -26631570.44 -26631570.35 -26631570.24 0.0492 0.0446
 Saturn -77626-05-30 09:35 J -26631324.31 -26631324.10 -26631323.88 0.0265 0.0112
 Uranus -77626-06-24 02:23 J -26631299.57 -26631299.40 -26631299.21 0.0147 0.0096
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 Uranus -77625-06-28 05:59 J -26630929.47 -26630929.25 -26630929.01 0.0147 0.0067
 Saturn -77624-06-21 05:16 J -26630571.51 -26630571.28 -26630571.03 0.0263 0.0061
 Uranus -77624-07-03 06:56 J -26630559.45 -26630559.21 -26630558.96 0.0147 0.0010
 Saturn -77623-07-02 09:06 J -26630195.32 -26630195.12 -26630194.90 0.0263 0.0147
 Uranus -77623-07-08 15:06 J -26630189.13 -26630188.87 -26630188.62 0.0148 0.0029
 Uranus -77622-07-13 14:23 J -26629819.10 -26629818.90 -26629818.67 0.0148 0.0071
 Saturn -77622-07-13 21:35 J -26629818.69 -26629818.60 -26629818.51 0.0264 0.0244 *
 Jupiter -77621-03-17 22:47 J -26629570.78 -26629570.55 -26629570.32 0.0535 0.0106
 Uranus -77621-07-18 01:40 J -26629448.55 -26629448.43 -26629448.27 0.0148 0.0125
 Saturn -77612-11-22 05:30 J -26626034.40 -26626034.27 -26626034.11 0.0294 0.0237
 Saturn -77611-12-07 12:28 J -26625654.20 -26625653.98 -26625653.74 0.0296 0.0103
 Saturn -77610-12-22 21:20 J -26625273.84 -26625273.61 -26625273.37 0.0298 0.0043
 Jupiter -77609-03-22 11:44 J -26625183.23 -26625183.01 -26625182.80 0.0535 0.0120
 Saturn -77608-01-06 03:49 J -26624893.51 -26624893.34 -26624893.14 0.0298 0.0185
 Saturn -77598-05-14 20:37 J -26621112.70 -26621112.64 -26621112.57 0.0268 0.0257
 Jupiter -77597-03-27 13:54 J -26620795.09 -26620794.92 -26620794.73 0.0534 0.0325
 Saturn -77597-05-25 07:40 J -26620736.37 -26620736.18 -26620735.98 0.0266 0.0155
 Saturn -77596-06-05 09:35 J -26620360.34 -26620360.10 -26620359.85 0.0264 0.0061
 Mars -77595-06-06 23:59 J -26619993.57 -26619993.50 -26619993.42 0.1663 0.1492
 Saturn -77595-06-16 13:54 J -26619984.16 -26619983.92 -26619983.68 0.0263 0.0022
 Saturn -77594-06-28 02:08 J -26619607.62 -26619607.41 -26619607.19 0.0263 0.0107
 Saturn -77593-07-08 14:52 J -26619231.03 -26619230.88 -26619230.71 0.0263 0.0199
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Uranus -77586-12-29 04:04 J -26616501.48 -26616501.33 -26616501.15 0.0132 0.0099
 Uranus -77584-01-01 16:18 J -26616132.03 -26616131.82 -26616131.58 0.0132 0.0065
 Uranus -77583-01-05 16:32 J -26615763.05 -26615762.81 -26615762.57 0.0131 0.0040
 Saturn -77583-11-16 05:59 J -26615448.29 -26615448.25 -26615448.20 0.0293 0.0287
 Uranus -77582-01-10 03:06 J -26615393.63 -26615393.37 -26615393.11 0.0131 0.0003
 Saturn -77582-12-01 10:47 J -26615068.26 -26615068.05 -26615067.83 0.0296 0.0160
 Uranus -77581-01-14 01:40 J -26615024.67 -26615024.43 -26615024.18 0.0131 0.0020
 Saturn -77581-12-15 15:20 J -26614688.11 -26614687.86 -26614687.60 0.0297 0.0022
 Uranus -77580-01-17 11:30 J -26614655.24 -26614655.02 -26614654.79 0.0131 0.0064
 Jupiter -77580-09-11 18:42 J -26614417.94 -26614417.72 -26614417.50 0.0491 0.0216
 Saturn -77580-12-30 17:44 J -26614307.98 -26614307.76 -26614307.52 0.0298 0.0122
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 Saturn -77578-01-14 17:01 J -26613927.91 -26613927.79 -26613927.66 0.0297 0.0255
 Uranus -77578-01-25 18:13 J -26613916.83 -26613916.74 -26613916.63 0.0131 0.0121
 Mars -77570-12-18 08:23 J -26610668.36 -26610668.15 -26610667.94 0.1898 0.0567
 Saturn -77568-05-20 07:40 J -26610149.33 -26610149.18 -26610149.01 0.0267 0.0198
 Jupiter -77568-09-15 22:04 J -26610030.82 -26610030.58 -26610030.34 0.0491 0.0043
 Saturn -77567-05-31 18:56 J -26609772.92 -26609772.71 -26609772.49 0.0265 0.0100
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 Saturn -77566-06-12 04:04 J -26609396.57 -26609396.33 -26609396.09 0.0264 0.0012
 Neptune -77565-04-08 07:11 J -26609095.33 -26609095.20 -26609095.05 0.0089 0.0072
 Saturn -77565-06-22 06:13 J -26609020.48 -26609020.24 -26609020.00 0.0263 0.0070
 Neptune -77564-04-10 11:59 J -26608728.21 -26608728.00 -26608727.79 0.0089 0.0049
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 Pluto -77563-02-21 00:13 J -26608411.71 -26608411.49 -26608411.24 0.0079 0.0025
 Neptune -77563-04-13 02:23 J -26608360.60 -26608360.40 -26608360.16 0.0089 0.0040
 Mars -77563-06-15 05:01 J -26608297.37 -26608297.29 -26608297.20 0.1640 0.1412
 Saturn -77563-07-15 06:42 J -26608267.24 -26608267.22 -26608267.18 0.0264 0.0261
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Neptune -77560-04-19 00:13 J -26607258.73 -26607258.49 -26607258.25 0.0089 0.0018
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 Saturn -77553-11-23 18:28 J -26604482.88 -26604482.73 -26604482.56 0.0294 0.0222
 Saturn -77552-12-09 04:47 J -26604102.53 -26604102.30 -26604102.07 0.0297 0.0087
 Saturn -77551-12-24 14:52 J -26603722.12 -26603721.88 -26603721.65 0.0298 0.0058
 Jupiter -77550-03-12 21:06 J -26603643.75 -26603643.62 -26603643.48 0.0535 0.0436
 Saturn -77549-01-08 19:54 J -26603341.84 -26603341.67 -26603341.48 0.0298 0.0201
 Jupiter -77544-09-25 05:16 J -26601255.38 -26601255.28 -26601255.15 0.0492 0.0433
 Uranus -77543-06-19 07:40 J -26600988.24 -26600988.18 -26600988.10 0.0147 0.0141
 Uranus -77542-06-24 10:32 J -26600618.21 -26600618.06 -26600617.88 0.0147 0.0108
 Uranus -77541-06-28 12:28 J -26600248.22 -26600247.98 -26600247.72 0.0147 0.0050
 Uranus -77540-07-03 14:37 J -26599878.13 -26599877.89 -26599877.64 0.0147 0.0019
 Saturn -77539-05-16 04:47 J -26599561.39 -26599561.30 -26599561.19 0.0268 0.0242
 Uranus -77539-07-08 21:20 J -26599507.86 -26599507.61 -26599507.35 0.0147 0.0034
 Jupiter -77538-03-17 15:20 J -26599256.07 -26599255.86 -26599255.65 0.0535 0.0149
 Saturn -77538-05-27 09:20 J -26599185.31 -26599185.11 -26599184.89 0.0265 0.0141
 Uranus -77538-07-13 22:04 J -26599137.78 -26599137.58 -26599137.37 0.0148 0.0080
 Saturn -77537-06-06 11:59 J -26598809.24 -26598809.00 -26598808.76 0.0264 0.0048
 Uranus -77537-07-18 09:06 J -26598767.28 -26598767.12 -26598766.95 0.0148 0.0113
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 Saturn -77523-12-02 18:28 J -26593516.96 -26593516.73 -26593516.51 0.0296 0.0146
 Saturn -77522-12-17 23:01 J -26593136.79 -26593136.54 -26593136.28 0.0298 0.0006

Saturn -77520-01-01 04:04 J -26592756.54 -26592756.33 -26592756.11 0.0298 0.0138
 Saturn -77519-01-16 05:59 J -26592376.34 -26592376.25 -26592376.15 0.0298 0.0271
 Mars -77516-06-08 21:06 J -26591136.79 -26591136.62 -26591136.45 0.1659 0.0468
 Jupiter -77514-03-27 11:44 J -26590480.19 -26590480.01 -26590479.81 0.0535 0.0300
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 Jupiter -77402-09-15 17:30 J -26549400.02 -26549399.77 -26549399.52 0.0491 0.0049
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 Jupiter -77277-03-20 10:04 J -26503922.31 -26503922.08 -26503921.84 0.0535 0.0015
 Saturn -77274-05-16 02:23 J -26502770.50 -26502770.40 -26502770.28 0.0267 0.0240
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 Saturn -77271-06-18 00:42 J -26501641.72 -26501641.47 -26501641.22 0.0262 0.0028
 Saturn -77270-06-29 00:28 J -26501265.70 -26501265.48 -26501265.26 0.0262 0.0120
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 Jupiter -77265-03-25 12:28 J -26499534.17 -26499533.98 -26499533.79 0.0535 0.0259
 Jupiter -77260-09-05 12:13 J -26497544.10 -26497543.99 -26497543.87 0.0491 0.0429
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 Saturn -77123-06-26 10:04 J -26447576.31 -26447576.08 -26447575.84 0.0262 0.0101
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 Saturn -77093-07-02 05:44 J -26436612.45 -26436612.26 -26436612.06 0.0262 0.0158
 Uranus -77083-12-27 05:01 J -26432782.33 -26432782.29 -26432782.23 0.0132 0.0130
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 Jupiter -77028-03-19 05:44 J -26412976.48 -26412976.26 -26412976.04 0.0535 0.0046
 Mars -77027-06-08 20:08 J -26412529.82 -26412529.66 -26412529.49 0.1675 0.0807
 Saturn -77023-11-21 02:08 J -26410903.51 -26410903.41 -26410903.31 0.0293 0.0269
 Saturn -77022-12-06 06:13 J -26410523.45 -26410523.24 -26410523.01 0.0296 0.0134
 Saturn -77021-12-20 15:49 J -26410143.08 -26410142.84 -26410142.60 0.0298 0.0015
 Saturn -77019-01-05 01:25 J -26409762.64 -26409762.44 -26409762.24 0.0299 0.0162
 Saturn -77018-01-20 06:28 J -26409382.27 -26409382.23 -26409382.20 0.0298 0.0295
 Jupiter -77016-03-24 12:28 J -26408588.18 -26408587.98 -26408587.78 0.0534 0.0231
 Jupiter -77011-09-04 08:37 J -26406598.20 -26406598.14 -26406598.08 0.0492 0.0474
 Saturn -77009-05-15 08:23 J -26405979.25 -26405979.15 -26405979.02 0.0270 0.0235
 Saturn -77008-05-27 00:13 J -26405602.68 -26405602.49 -26405602.28 0.0267 0.0140
 Saturn -77007-06-07 06:28 J -26405226.47 -26405226.23 -26405225.98 0.0265 0.0052
 Saturn -77006-06-18 07:25 J -26404850.43 -26404850.19 -26404849.94 0.0263 0.0034
 Saturn -77005-06-28 16:18 J -26404474.02 -26404473.82 -26404473.62 0.0263 0.0135
 Jupiter -77004-03-29 01:40 J -26404200.48 -26404200.43 -26404200.37 0.0534 0.0515
 Saturn -77004-07-10 04:32 J -26404097.39 -26404097.31 -26404097.19 0.0262 0.0239
 Mars -77002-12-16 12:56 J -26403208.15 -26403207.96 -26403207.77 0.1877 0.0076

77TH MILLENNIUM BCE

This is a list of transits of Moon in the 77th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-76999-09-09	03:35	J	-26402210.54	-26402210.35	-26402210.15	0.0492	0.0291

Uranus -76999-12-27 10:32 J -26402101.17 -26402101.06 -26402100.93 0.0132 0.0117
 Uranus -76998-12-31 21:06 J -26401731.78 -26401731.62 -26401731.43 0.0132 0.0094
 Uranus -76996-01-04 01:11 J -26401362.68 -26401362.45 -26401362.19 0.0132 0.0054
 Uranus -76995-01-08 10:47 J -26400993.29 -26400993.05 -26400992.80 0.0132 0.0021
 Uranus -76994-01-12 14:08 J -26400624.17 -26400623.91 -26400623.64 0.0131 0.0008
 Uranus -76993-01-16 21:49 J -26400254.81 -26400254.59 -26400254.35 0.0131 0.0051
 Saturn -76993-11-29 10:47 J -26399937.24 -26399937.05 -26399936.86 0.0295 0.0189
 Uranus -76992-01-19 23:59 J -26399885.70 -26399885.50 -26399885.26 0.0131 0.0073
 Saturn -76992-12-14 15:49 J -26399557.10 -26399556.84 -26399556.59 0.0297 0.0043
 Uranus -76991-01-24 06:28 J -26399516.32 -26399516.23 -26399516.11 0.0131 0.0119
 Neptune -76991-10-07 12:28 J -26399260.12 -26399259.98 -26399259.80 0.0088 0.0072
 Saturn -76991-12-29 20:08 J -26399176.90 -26399176.66 -26399176.42 0.0299 0.0106
 Neptune -76990-10-09 23:16 J -26398892.70 -26398892.53 -26398892.35 0.0088 0.0064
 Saturn -76989-01-13 22:32 J -26398796.69 -26398796.56 -26398796.41 0.0299 0.0246
 Neptune -76989-10-11 15:06 J -26398525.10 -26398524.87 -26398524.60 0.0088 0.0039
 Neptune -76988-10-14 06:42 J -26398157.45 -26398157.22 -26398156.97 0.0088 0.0030
 Jupiter -76987-09-13 10:47 J -26397823.29 -26397823.05 -26397822.82 0.0492 0.0053
 Neptune -76987-10-16 18:42 J -26397789.99 -26397789.72 -26397789.45 0.0088 0.0005
 Neptune -76986-10-19 13:54 J -26397422.17 -26397421.92 -26397421.66 0.0088 0.0003
 Neptune -76985-10-20 21:35 J -26397054.84 -26397054.60 -26397054.33 0.0088 0.0029
 Neptune -76984-10-23 18:56 J -26396686.93 -26396686.71 -26396686.45 0.0088 0.0037
 Neptune -76983-10-26 02:08 J -26396319.57 -26396319.41 -26396319.20 0.0088 0.0062
 Neptune -76982-10-28 23:01 J -26395951.69 -26395951.54 -26395951.36 0.0088 0.0070
 Saturn -76979-05-22 06:13 J -26395015.42 -26395015.24 -26395015.06 0.0268 0.0179
 Saturn -76978-06-02 15:35 J -26394639.07 -26394638.85 -26394638.63 0.0265 0.0091
 Saturn -76977-06-13 02:37 J -26394262.63 -26394262.39 -26394262.15 0.0263 0.0005
 Saturn -76976-06-24 07:11 J -26393886.43 -26393886.20 -26393885.96 0.0262 0.0090
 Saturn -76975-07-05 08:52 J -26393510.28 -26393510.13 -26393509.95 0.0262 0.0196
 Jupiter -76975-09-18 05:59 J -26393435.46 -26393435.25 -26393435.03 0.0492 0.0178
 Jupiter -76969-03-08 14:23 J -26391436.95 -26391436.90 -26391436.83 0.0535 0.0515

Saturn	-76964-11-22 16:32 J	-26389351.92	-26389351.81	-26389351.68	0.0293	0.0253
Jupiter	-76963-09-22 14:52 J	-26389048.05	-26389047.88	-26389047.70	0.0492	0.0349
Saturn	-76963-12-07 23:59 J	-26388971.72	-26388971.50	-26388971.28	0.0296	0.0113
Saturn	-76962-12-23 10:04 J	-26388591.31	-26388591.08	-26388590.84	0.0298	0.0037
Saturn	-76960-01-06 18:13 J	-26388210.94	-26388210.74	-26388210.55	0.0299	0.0182
Jupiter	-76957-03-13 12:13 J	-26387049.18	-26387048.99	-26387048.80	0.0535	0.0282
Uranus	-76955-06-21 21:49 J	-26386218.68	-26386218.59	-26386218.49	0.0146	0.0135
Uranus	-76954-06-27 06:13 J	-26385848.44	-26385848.24	-26385848.04	0.0147	0.0087
Uranus	-76953-07-01 00:56 J	-26385478.69	-26385478.46	-26385478.21	0.0147	0.0051
Uranus	-76952-07-06 10:32 J	-26385108.31	-26385108.06	-26385107.82	0.0147	0.0011
Uranus	-76951-07-11 07:40 J	-26384738.41	-26384738.18	-26384737.92	0.0147	0.0045
Saturn	-76950-05-17 17:59 J	-26384427.87	-26384427.75	-26384427.60	0.0269	0.0220
Uranus	-76950-07-16 16:32 J	-26384367.98	-26384367.81	-26384367.61	0.0147	0.0099
Saturn	-76949-05-28 05:01 J	-26384051.50	-26384051.29	-26384051.07	0.0267	0.0126
Saturn	-76948-06-08 07:25 J	-26383675.43	-26383675.19	-26383674.94	0.0265	0.0042
Mars	-76948-06-11 04:47 J	-26383672.49	-26383672.30	-26383672.10	0.1670	0.0209
Saturn	-76947-06-19 14:23 J	-26383299.13	-26383298.90	-26383298.67	0.0263	0.0050
Saturn	-76946-07-01 02:23 J	-26382922.58	-26382922.40	-26382922.19	0.0263	0.0154
Jupiter	-76945-03-18 16:47 J	-26382661.02	-26382660.80	-26382660.57	0.0534	0.0070
Saturn	-76945-07-11 10:47 J	-26382546.10	-26382546.05	-26382546.00	0.0263	0.0256
Saturn	-76934-12-01 23:30 J	-26378385.73	-26378385.52	-26378385.31	0.0295	0.0170
Jupiter	-76933-03-23 02:23 J	-26378273.61	-26378273.40	-26378273.19	0.0534	0.0191
Saturn	-76933-12-16 03:35 J	-26378005.60	-26378005.35	-26378005.09	0.0297	0.0024
Saturn	-76932-12-31 09:35 J	-26377625.32	-26377625.10	-26377624.87	0.0299	0.0126
Saturn	-76930-01-15 14:52 J	-26377244.98	-26377244.88	-26377244.77	0.0299	0.0267
Jupiter	-76921-03-28 05:01 J	-26373885.38	-26373885.29	-26373885.19	0.0534	0.0480
Saturn	-76921-05-12 01:25 J	-26373840.49	-26373840.44	-26373840.36	0.0270	0.0261
Saturn	-76920-05-23 12:56 J	-26373464.14	-26373463.96	-26373463.77	0.0267	0.0165
Saturn	-76919-06-04 02:52 J	-26373087.60	-26373087.38	-26373087.15	0.0265	0.0079
Saturn	-76918-06-15 10:04 J	-26372711.32	-26372711.08	-26372710.83	0.0263	0.0010

Saturn -76917-06-25 11:01 J -26372335.27 -26372335.04 -26372334.81 0.0263 0.0107
 Saturn -76916-07-06 18:42 J -26371958.85 -26371958.72 -26371958.58 0.0262 0.0214
 Jupiter -76916-09-08 00:28 J -26371895.66 -26371895.48 -26371895.29 0.0492 0.0304
 Uranus -76915-12-27 17:59 J -26371419.79 -26371419.75 -26371419.69 0.0132 0.0130
 Uranus -76913-01-01 05:59 J -26371050.42 -26371050.25 -26371050.04 0.0132 0.0084
 Uranus -76912-01-04 08:52 J -26370681.36 -26370681.13 -26370680.88 0.0132 0.0057
 Uranus -76911-01-08 19:40 J -26370311.93 -26370311.68 -26370311.44 0.0132 0.0021
 Uranus -76910-01-12 21:20 J -26369942.87 -26369942.61 -26369942.34 0.0132 0.0017
 Uranus -76909-01-17 05:59 J -26369573.47 -26369573.25 -26369573.00 0.0131 0.0043
 Uranus -76908-01-20 06:56 J -26369204.39 -26369204.21 -26369204.00 0.0131 0.0089
 Neptune -76908-04-08 15:35 J -26369125.97 -26369125.85 -26369125.68 0.0089 0.0072
 Uranus -76907-01-24 15:20 J -26368835.00 -26368834.86 -26368834.72 0.0131 0.0109
 Neptune -76907-04-11 01:54 J -26368758.59 -26368758.42 -26368758.21 0.0089 0.0061
 Pluto -76907-08-20 13:25 J -26368627.18 -26368626.94 -26368626.68 0.0065 0.0016
 Neptune -76906-04-13 12:13 J -26368391.20 -26368390.99 -26368390.76 0.0089 0.0040
 Neptune -76905-04-14 17:44 J -26368023.99 -26368023.76 -26368023.51 0.0089 0.0030
 Saturn -76905-11-24 15:06 J -26367800.00 -26367799.87 -26367799.71 0.0293 0.0233
 Neptune -76904-04-17 08:37 J -26367656.38 -26367656.14 -26367655.89 0.0089 0.0009
 Jupiter -76904-09-12 19:40 J -26367507.91 -26367507.68 -26367507.44 0.0492 0.0063
 Saturn -76904-12-09 22:18 J -26367419.79 -26367419.57 -26367419.33 0.0296 0.0092
 Neptune -76903-04-19 11:01 J -26367289.29 -26367289.04 -26367288.79 0.0089 0.0002
 Saturn -76903-12-25 06:13 J -26367039.48 -26367039.24 -26367038.99 0.0298 0.0059
 Neptune -76902-04-22 02:37 J -26366921.62 -26366921.39 -26366921.13 0.0089 0.0024
 Saturn -76901-01-09 10:04 J -26366659.25 -26366659.08 -26366658.89 0.0298 0.0205
 Neptune -76901-04-23 05:59 J -26366554.47 -26366554.25 -26366554.02 0.0089 0.0034
 Neptune -76900-04-25 18:56 J -26366186.89 -26366186.71 -26366186.49 0.0089 0.0056
 Neptune -76899-04-28 01:40 J -26365819.57 -26365819.43 -26365819.25 0.0089 0.0066
 Neptune -76898-04-30 10:04 J -26365452.12 -26365452.08 -26365452.00 0.0089 0.0086
 Jupiter -76892-09-17 00:13 J -26363120.73 -26363120.49 -26363120.26 0.0492 0.0151
 Saturn -76891-05-19 02:37 J -26362876.53 -26362876.39 -26362876.22 0.0269 0.0205

Saturn	-76890-05-30 07:54 J	-26362500.38	-26362500.17	-26362499.93	0.0267	0.0115
Saturn	-76889-06-09 14:37 J	-26362124.12	-26362123.89	-26362123.65	0.0265	0.0028
Saturn	-76888-06-21 02:08 J	-26361747.64	-26361747.41	-26361747.19	0.0263	0.0066
Saturn	-76887-07-02 10:04 J	-26361371.26	-26361371.08	-26361370.88	0.0263	0.0170
Jupiter	-76880-09-21 16:04 J	-26358733.00	-26358732.83	-26358732.65	0.0492	0.0324
Saturn	-76876-11-18 13:25 J	-26357213.99	-26357213.94	-26357213.88	0.0292	0.0284
Saturn	-76875-12-03 14:52 J	-26356834.09	-26356833.88	-26356833.66	0.0295	0.0151
Jupiter	-76874-03-13 14:23 J	-26356734.08	-26356733.90	-26356733.72	0.0534	0.0328
Saturn	-76874-12-18 21:49 J	-26356453.83	-26356453.59	-26356453.34	0.0297	0.0002
Saturn	-76872-01-02 06:28 J	-26356073.43	-26356073.23	-26356073.02	0.0299	0.0150
Saturn	-76871-01-17 12:56 J	-26355693.00	-26355692.96	-26355692.89	0.0299	0.0290
Uranus	-76871-06-22 07:40 J	-26355537.26	-26355537.18	-26355537.09	0.0146	0.0137
Uranus	-76870-06-27 15:06 J	-26355167.05	-26355166.87	-26355166.66	0.0147	0.0093
Mars	-76869-06-13 16:32 J	-26354814.96	-26354814.81	-26354814.66	0.1665	0.1020
Uranus	-76869-07-01 10:04 J	-26354797.32	-26354797.08	-26354796.83	0.0147	0.0035
Uranus	-76868-07-06 19:40 J	-26354426.93	-26354426.68	-26354426.43	0.0147	0.0002
Uranus	-76867-07-11 16:32 J	-26354057.04	-26354056.81	-26354056.57	0.0147	0.0059
Uranus	-76866-07-17 02:23 J	-26353686.57	-26353686.40	-26353686.21	0.0147	0.0099
Uranus	-76865-07-21 02:08 J	-26353316.42	-26353316.41	-26353316.34	0.0147	0.0146
Jupiter	-76862-03-18 03:20 J	-26352346.58	-26352346.36	-26352346.13	0.0534	0.0117
Saturn	-76862-05-14 09:06 J	-26352289.21	-26352289.12	-26352289.02	0.0270	0.0246
Saturn	-76861-05-25 01:11 J	-26351912.63	-26351912.45	-26351912.25	0.0267	0.0151
Saturn	-76860-06-05 12:13 J	-26351536.22	-26351535.99	-26351535.75	0.0265	0.0064
Saturn	-76859-06-16 14:08 J	-26351160.15	-26351159.91	-26351159.66	0.0263	0.0024
Saturn	-76858-06-27 18:56 J	-26350783.91	-26350783.71	-26350783.49	0.0263	0.0123
Saturn	-76857-07-08 08:08 J	-26350407.26	-26350407.16	-26350407.04	0.0262	0.0233
Jupiter	-76850-03-23 08:23 J	-26347958.36	-26347958.15	-26347957.94	0.0535	0.0164
Saturn	-76846-11-27 15:20 J	-26346248.02	-26346247.86	-26346247.68	0.0294	0.0212
Saturn	-76845-12-11 20:08 J	-26345867.90	-26345867.66	-26345867.41	0.0296	0.0068
Saturn	-76844-12-27 01:11 J	-26345487.70	-26345487.45	-26345487.20	0.0298	0.0083

Saturn -76842-01-11 03:06 J -26345107.52 -26345107.37 -26345107.20 0.0298 0.0227
 Jupiter -76838-03-28 03:49 J -26343570.46 -26343570.34 -26343570.21 0.0534 0.0455
 Jupiter -76833-09-07 05:30 J -26341580.44 -26341580.27 -26341580.09 0.0492 0.0327
 Saturn -76832-05-20 07:54 J -26341325.34 -26341325.17 -26341324.99 0.0269 0.0189
 Saturn -76831-05-31 14:52 J -26340949.10 -26340948.88 -26340948.65 0.0267 0.0099
 Uranus -76831-12-28 00:28 J -26340738.60 -26340738.48 -26340738.35 0.0132 0.0116
 Saturn -76830-06-12 03:06 J -26340572.60 -26340572.37 -26340572.14 0.0265 0.0013
 Uranus -76829-01-01 13:25 J -26340369.10 -26340368.94 -26340368.74 0.0132 0.0094
 Saturn -76829-06-22 12:13 J -26340196.22 -26340195.99 -26340195.75 0.0263 0.0082
 Uranus -76828-01-04 15:49 J -26340000.08 -26339999.84 -26339999.59 0.0132 0.0050
 Saturn -76828-07-03 14:37 J -26339820.05 -26339819.89 -26339819.70 0.0263 0.0189
 Uranus -76827-01-09 03:49 J -26339630.58 -26339630.34 -26339630.09 0.0132 0.0019
 Neptune -76827-10-06 18:42 J -26339359.80 -26339359.72 -26339359.58 0.0088 0.0080
 Uranus -76826-01-13 04:47 J -26339261.56 -26339261.30 -26339261.03 0.0132 0.0013
 Neptune -76826-10-09 09:20 J -26338992.27 -26338992.11 -26338991.90 0.0088 0.0066
 Uranus -76825-01-17 14:52 J -26338892.10 -26338891.88 -26338891.64 0.0132 0.0056
 Neptune -76825-10-11 01:40 J -26338624.63 -26338624.43 -26338624.20 0.0088 0.0048
 Uranus -76824-01-20 14:52 J -26338523.08 -26338522.88 -26338522.66 0.0131 0.0078
 Neptune -76824-10-13 12:13 J -26338257.24 -26338256.99 -26338256.74 0.0088 0.0033
 Uranus -76823-01-24 23:59 J -26338153.58 -26338153.50 -26338153.43 0.0131 0.0125
 Neptune -76823-10-16 08:23 J -26337889.40 -26337889.15 -26337888.89 0.0088 0.0015
 Mars -76822-06-08 07:40 J -26337654.33 -26337654.18 -26337654.03 0.1686 0.0919
 Neptune -76822-10-18 16:04 J -26337522.10 -26337521.83 -26337521.56 0.0088 0.0001
 Jupiter -76821-09-11 12:42 J -26337193.21 -26337192.97 -26337192.72 0.0492 0.0088
 Neptune -76821-10-20 13:40 J -26337154.18 -26337153.93 -26337153.66 0.0088 0.0018
 Neptune -76820-10-22 21:20 J -26336786.83 -26336786.61 -26336786.36 0.0088 0.0036
 Pluto -76819-02-25 05:01 J -26336661.53 -26336661.29 -26336661.02 0.0079 0.0019
 Neptune -76819-10-25 17:59 J -26336418.96 -26336418.75 -26336418.51 0.0088 0.0050
 Neptune -76818-10-28 04:32 J -26336051.47 -26336051.31 -26336051.14 0.0088 0.0068
 Neptune -76817-10-29 20:23 J -26335683.73 -26335683.65 -26335683.52 0.0088 0.0082

Saturn -76817-11-20 07:54 J -26335662.27 -26335662.17 -26335662.07 0.0292 0.0266
 Saturn -76816-12-05 13:11 J -26335282.17 -26335281.95 -26335281.73 0.0295 0.0129
 Saturn -76815-12-20 22:32 J -26334901.80 -26334901.56 -26334901.32 0.0297 0.0023
 Saturn -76813-01-05 07:11 J -26334521.39 -26334521.20 -26334521.00 0.0299 0.0173
 Jupiter -76809-09-16 05:30 J -26332805.49 -26332805.27 -26332805.04 0.0492 0.0130
 Saturn -76803-05-15 22:04 J -26330737.68 -26330737.58 -26330737.45 0.0270 0.0233
 Saturn -76802-05-27 13:11 J -26330361.15 -26330360.95 -26330360.74 0.0267 0.0135
 Saturn -76801-06-06 17:44 J -26329985.01 -26329984.76 -26329984.51 0.0265 0.0050
 Saturn -76800-06-17 20:52 J -26329608.86 -26329608.63 -26329608.39 0.0263 0.0039
 Saturn -76799-06-29 07:25 J -26329232.38 -26329232.19 -26329231.99 0.0263 0.0142
 Saturn -76798-07-10 19:11 J -26328855.77 -26328855.70 -26328855.62 0.0262 0.0249
 Jupiter -76797-09-20 18:42 J -26328417.91 -26328417.72 -26328417.51 0.0492 0.0296
 Jupiter -76791-03-12 03:49 J -26326419.50 -26326419.34 -26326419.18 0.0535 0.0367
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 Saturn -76285-12-18 19:54 J -26141320.91 -26141320.67 -26141320.42 0.0297 0.0026
 Saturn -76283-01-03 05:30 J -26140940.46 -26140940.27 -26140940.07 0.0299 0.0182
 Uranus -76283-06-24 20:23 J -26140767.77 -26140767.65 -26140767.51 0.0146 0.0123
 Uranus -76282-06-29 21:06 J -26140397.83 -26140397.62 -26140397.39 0.0147 0.0080
 Jupiter -76281-03-13 05:59 J -26140140.45 -26140140.25 -26140140.05 0.0533 0.0247
 Uranus -76281-07-03 20:52 J -26140027.86 -26140027.63 -26140027.39 0.0147 0.0032
 Uranus -76280-07-09 01:54 J -26139657.67 -26139657.42 -26139657.16 0.0147 0.0028
 Uranus -76279-07-14 00:28 J -26139287.68 -26139287.48 -26139287.24 0.0147 0.0064
 Uranus -76278-07-19 09:49 J -26138917.21 -26138917.09 -26138916.95 0.0147 0.0127
 Saturn -76273-05-16 05:16 J -26137154.39 -26137154.28 -26137154.14 0.0271 0.0232
 Saturn -76272-05-27 18:28 J -26136777.92 -26136777.73 -26136777.53 0.0268 0.0142
 Saturn -76271-06-08 07:25 J -26136401.43 -26136401.19 -26136400.96 0.0265 0.0048
 Saturn -76270-06-19 11:59 J -26136025.25 -26136025.00 -26136024.76 0.0263 0.0055
 Jupiter -76269-03-18 11:44 J -26135752.23 -26135752.01 -26135751.78 0.0533 0.0051
 Saturn -76269-06-29 11:01 J -26135649.22 -26135649.04 -26135648.85 0.0262 0.0169
 Jupiter -76257-03-23 03:06 J -26131364.57 -26131364.37 -26131364.17 0.0534 0.0277
 Saturn -76257-11-27 08:52 J -26131115.30 -26131115.13 -26131114.94 0.0293 0.0197
 Saturn -76256-12-12 15:35 J -26130735.10 -26130734.85 -26130734.61 0.0296 0.0043
 Saturn -76255-12-27 23:01 J -26130354.77 -26130354.54 -26130354.30 0.0299 0.0117
 Mars -76254-06-09 19:11 J -26130190.87 -26130190.70 -26130190.53 0.1700 0.0478
 Saturn -76253-01-12 05:16 J -26129974.39 -26129974.28 -26129974.17 0.0300 0.0269
 Jupiter -76252-09-04 08:37 J -26129373.30 -26129373.14 -26129372.98 0.0493 0.0349
 Neptune -76251-04-09 05:59 J -26129156.34 -26129156.25 -26129156.12 0.0089 0.0079
 Neptune -76250-04-11 21:20 J -26128788.78 -26128788.61 -26128788.40 0.0089 0.0059
 Neptune -76249-04-13 01:54 J -26128421.61 -26128421.42 -26128421.20 0.0089 0.0049

Neptune -76248-04-15 13:40 J -26128054.16 -26128053.93 -26128053.67 0.0089 0.0029
 Neptune -76247-04-17 23:01 J -26127686.78 -26127686.54 -26127686.30 0.0089 0.0018
 Neptune -76246-04-20 05:01 J -26127319.55 -26127319.29 -26127319.03 0.0089 0.0001
 Jupiter -76245-03-28 02:23 J -26126976.48 -26126976.40 -26126976.30 0.0534 0.0485
 Neptune -76245-04-21 18:42 J -26126951.96 -26126951.72 -26126951.47 0.0089 0.0012
 Neptune -76244-04-23 21:49 J -26126584.82 -26126584.59 -26126584.35 0.0089 0.0031
 Neptune -76243-04-26 13:54 J -26126217.13 -26126216.92 -26126216.69 0.0089 0.0042
 Saturn -76243-05-23 03:35 J -26126190.52 -26126190.35 -26126190.16 0.0269 0.0183
 Uranus -76243-12-30 08:23 J -26125969.23 -26125969.15 -26125969.04 0.0132 0.0123
 Neptune -76242-04-28 16:32 J -26125849.98 -26125849.81 -26125849.63 0.0089 0.0062
 Saturn -76242-06-03 08:08 J -26125814.39 -26125814.16 -26125813.92 0.0266 0.0094
 Uranus -76241-01-03 21:49 J -26125599.79 -26125599.59 -26125599.35 0.0132 0.0073
 Neptune -76241-04-30 06:28 J -26125482.35 -26125482.23 -26125482.05 0.0089 0.0072
 Saturn -76241-06-13 14:52 J -26125438.12 -26125437.88 -26125437.65 0.0264 0.0007
 Uranus -76240-01-06 23:30 J -26125230.75 -26125230.52 -26125230.28 0.0132 0.0048
 Saturn -76240-06-25 00:42 J -26125061.67 -26125061.47 -26125061.25 0.0262 0.0120
 Jupiter -76240-09-08 16:18 J -26124986.05 -26124985.82 -26124985.58 0.0493 0.0139
 Uranus -76239-01-11 11:59 J -26124861.26 -26124861.00 -26124860.74 0.0132 0.0003
 Saturn -76239-07-06 04:32 J -26124685.43 -26124685.31 -26124685.19 0.0261 0.0228
 Uranus -76238-01-15 11:44 J -26124492.25 -26124492.01 -26124491.76 0.0132 0.0031
 Uranus -76237-01-19 23:16 J -26124122.75 -26124122.53 -26124122.30 0.0132 0.0066
 Uranus -76236-01-22 21:35 J -26123753.72 -26123753.60 -26123753.44 0.0131 0.0110
 Jupiter -76228-09-13 08:52 J -26120598.36 -26120598.13 -26120597.90 0.0492 0.0027
 Saturn -76228-11-20 08:23 J -26120530.25 -26120530.15 -26120530.03 0.0291 0.0263
 Saturn -76227-12-05 11:16 J -26120150.26 -26120150.03 -26120149.81 0.0295 0.0118
 Saturn -76226-12-20 20:37 J -26119769.87 -26119769.64 -26119769.40 0.0297 0.0042
 Saturn -76224-01-04 08:23 J -26119389.33 -26119389.15 -26119388.97 0.0299 0.0200
 Jupiter -76216-09-17 21:20 J -26116210.83 -26116210.61 -26116210.39 0.0493 0.0213
 Saturn -76214-05-18 02:23 J -26115603.53 -26115603.40 -26115603.27 0.0271 0.0222
 Saturn -76213-05-28 20:08 J -26115226.86 -26115226.66 -26115226.46 0.0268 0.0134

Saturn -76212-06-09 04:47 J -26114850.54 -26114850.30 -26114850.05 0.0265 0.0038
 Saturn -76211-06-20 05:01 J -26114474.52 -26114474.29 -26114474.04 0.0263 0.0070
 Jupiter -76210-03-08 15:20 J -26114212.89 -26114212.86 -26114212.81 0.0533 0.0524
 Saturn -76210-07-01 10:18 J -26114098.23 -26114098.07 -26114097.90 0.0262 0.0184
 Jupiter -76204-09-22 06:28 J -26111823.31 -26111823.23 -26111823.14 0.0493 0.0453
 Uranus -76199-06-25 07:40 J -26110086.26 -26110086.18 -26110086.05 0.0146 0.0131
 Jupiter -76198-03-13 18:42 J -26109824.91 -26109824.72 -26109824.52 0.0533 0.0256
 Uranus -76198-06-30 07:25 J -26109716.41 -26109716.19 -26109715.96 0.0147 0.0074
 Saturn -76198-11-29 09:35 J -26109564.29 -26109564.10 -26109563.89 0.0293 0.0181
 Uranus -76197-07-04 08:23 J -26109346.38 -26109346.15 -26109345.90 0.0147 0.0023
 Saturn -76197-12-13 12:28 J -26109184.23 -26109183.98 -26109183.72 0.0297 0.0026
 Uranus -76196-07-09 12:42 J -26108976.22 -26108975.97 -26108975.71 0.0147 0.0018
 Saturn -76196-12-28 17:59 J -26108803.97 -26108803.75 -26108803.52 0.0299 0.0138
 Uranus -76195-07-14 12:28 J -26108606.16 -26108605.98 -26108605.76 0.0147 0.0083
 Saturn -76194-01-13 00:42 J -26108423.52 -26108423.47 -26108423.40 0.0300 0.0290
 Uranus -76194-07-19 21:35 J -26108235.75 -26108235.60 -26108235.45 0.0147 0.0121
 Jupiter -76186-03-18 11:59 J -26105437.23 -26105437.00 -26105436.76 0.0534 0.0033
 Saturn -76185-05-12 12:42 J -26105016.03 -26105015.97 -26105015.92 0.0272 0.0264
 Saturn -76184-05-23 22:04 J -26104639.76 -26104639.58 -26104639.38 0.0269 0.0175
 Saturn -76183-06-04 07:11 J -26104263.42 -26104263.20 -26104262.97 0.0266 0.0084
 Saturn -76182-06-15 18:13 J -26103886.97 -26103886.74 -26103886.50 0.0264 0.0020
 Saturn -76181-06-25 23:44 J -26103510.72 -26103510.51 -26103510.29 0.0262 0.0133
 Saturn -76180-07-06 22:47 J -26103134.62 -26103134.55 -26103134.44 0.0261 0.0244
 Mars -76175-06-12 01:40 J -26101333.62 -26101333.43 -26101333.24 0.1695 0.0344
 Jupiter -76174-03-23 13:25 J -26101049.13 -26101048.94 -26101048.75 0.0534 0.0261
 Neptune -76170-10-06 20:23 J -26099390.70 -26099390.65 -26099390.56 0.0089 0.0085
 Jupiter -76169-09-03 12:56 J -26099058.13 -26099057.96 -26099057.79 0.0493 0.0351
 Neptune -76169-10-08 16:04 J -26099022.99 -26099022.83 -26099022.62 0.0088 0.0065
 Saturn -76169-11-21 11:59 J -26098979.13 -26098979.00 -26098978.87 0.0291 0.0246
 Neptune -76168-10-11 03:06 J -26098655.56 -26098655.37 -26098655.15 0.0088 0.0053

Saturn -76168-12-06 17:01 J -26098599.02 -26098598.79 -26098598.56 0.0295 0.0099
 Neptune -76167-10-13 19:25 J -26098287.94 -26098287.69 -26098287.43 0.0088 0.0034
 Saturn -76167-12-22 02:52 J -26098218.61 -26098218.38 -26098218.14 0.0297 0.0062
 Neptune -76166-10-16 11:01 J -26097920.28 -26097920.04 -26097919.78 0.0088 0.0022
 Saturn -76165-01-06 12:28 J -26097838.14 -26097837.98 -26097837.81 0.0299 0.0219
 Neptune -76165-10-17 22:18 J -26097552.84 -26097552.57 -26097552.29 0.0088 0.0004
 Neptune -76164-10-20 17:44 J -26097185.01 -26097184.76 -26097184.50 0.0088 0.0011
 Pluto -76163-08-24 05:30 J -26096877.46 -26096877.27 -26096877.07 0.0065 0.0043
 Neptune -76163-10-23 01:25 J -26096817.68 -26096817.44 -26096817.18 0.0088 0.0028
 Jupiter -76162-03-28 15:35 J -26096660.94 -26096660.85 -26096660.74 0.0533 0.0476
 Pluto -76162-08-26 01:40 J -26096510.61 -26096510.43 -26096510.21 0.0065 0.0044
 Neptune -76162-10-25 23:01 J -26096449.77 -26096449.54 -26096449.30 0.0088 0.0043
 Neptune -76161-10-27 05:59 J -26096082.43 -26096082.25 -26096082.04 0.0088 0.0059
 Neptune -76160-10-30 02:08 J -26095714.53 -26095714.41 -26095714.24 0.0088 0.0074
 Neptune -76159-11-01 11:44 J -26095347.01 -26095347.01 -26095346.98 0.0088 0.0088
 Uranus -76159-12-30 17:16 J -26095287.90 -26095287.78 -26095287.61 0.0132 0.0109
 Uranus -76157-01-04 06:13 J -26094918.44 -26094918.24 -26094918.03 0.0132 0.0084
 Jupiter -76157-09-08 00:56 J -26094670.68 -26094670.46 -26094670.24 0.0493 0.0154
 Uranus -76156-01-07 08:37 J -26094549.38 -26094549.14 -26094548.90 0.0132 0.0034
 Uranus -76155-01-11 20:23 J -26094179.91 -26094179.65 -26094179.38 0.0132 0.0007
 Saturn -76155-05-19 05:01 J -26094052.42 -26094052.29 -26094052.14 0.0271 0.0214
 Uranus -76154-01-15 21:20 J -26093810.84 -26093810.61 -26093810.36 0.0132 0.0036
 Saturn -76154-05-30 19:25 J -26093675.90 -26093675.69 -26093675.46 0.0268 0.0123
 Uranus -76153-01-20 08:08 J -26093441.37 -26093441.16 -26093440.93 0.0131 0.0074
 Saturn -76153-06-09 23:01 J -26093299.78 -26093299.54 -26093299.29 0.0265 0.0026
 Uranus -76152-01-23 07:54 J -26093072.31 -26093072.17 -26093072.01 0.0131 0.0104
 Saturn -76152-06-21 03:49 J -26092923.56 -26092923.34 -26092923.11 0.0263 0.0085
 Saturn -76151-07-02 14:23 J -26092547.04 -26092546.90 -26092546.74 0.0262 0.0201
 Mars -76150-12-14 16:18 J -26092017.00 -26092016.82 -26092016.63 0.1843 0.0375
 Jupiter -76145-09-12 15:35 J -26090283.09 -26090282.85 -26090282.60 0.0493 0.0011

Saturn	-76139-11-30 09:35 J	-26088013.31	-26088013.10	-26088012.88	0.0293	0.0160
Saturn	-76138-12-15 12:56 J	-26087633.21	-26087632.96	-26087632.71	0.0297	0.0005
Saturn	-76137-12-29 20:52 J	-26087252.83	-26087252.63	-26087252.41	0.0299	0.0156
Jupiter	-76133-09-17 00:56 J	-26085895.66	-26085895.46	-26085895.24	0.0493	0.0209
Saturn	-76126-05-14 08:23 J	-26083465.23	-26083465.15	-26083465.06	0.0272	0.0254
Saturn	-76125-05-24 21:06 J	-26083088.79	-26083088.62	-26083088.42	0.0269	0.0164
Saturn	-76124-06-05 12:13 J	-26082712.21	-26082711.99	-26082711.76	0.0266	0.0071
Saturn	-76123-06-16 20:52 J	-26082335.87	-26082335.63	-26082335.38	0.0264	0.0034
Saturn	-76122-06-27 20:52 J	-26081959.83	-26081959.63	-26081959.42	0.0262	0.0150
Saturn	-76121-07-08 00:56 J	-26081583.49	-26081583.46	-26081583.42	0.0261	0.0258
Jupiter	-76121-09-21 22:04 J	-26081507.67	-26081507.58	-26081507.48	0.0493	0.0451
Jupiter	-76115-03-12 19:25 J	-26079509.89	-26079509.69	-26079509.48	0.0534	0.0263
Uranus	-76115-06-25 19:40 J	-26079404.80	-26079404.68	-26079404.51	0.0146	0.0118
Uranus	-76114-06-30 18:28 J	-26079034.94	-26079034.73	-26079034.49	0.0147	0.0075
Uranus	-76113-07-04 21:06 J	-26078664.86	-26078664.62	-26078664.38	0.0147	0.0025
Uranus	-76112-07-10 00:13 J	-26078294.75	-26078294.49	-26078294.24	0.0147	0.0035
Uranus	-76111-07-15 01:11 J	-26077924.66	-26077924.45	-26077924.23	0.0147	0.0072
Uranus	-76110-07-20 08:37 J	-26077554.23	-26077554.14	-26077554.04	0.0147	0.0137
Saturn	-76110-11-23 23:01 J	-26077427.68	-26077427.54	-26077427.37	0.0291	0.0226
Saturn	-76109-12-08 03:06 J	-26077047.61	-26077047.37	-26077047.13	0.0295	0.0078
Saturn	-76108-12-23 09:49 J	-26076667.33	-26076667.09	-26076666.84	0.0297	0.0079
Saturn	-76106-01-07 15:35 J	-26076286.99	-26076286.85	-26076286.68	0.0299	0.0237
Jupiter	-76103-03-17 22:32 J	-26075121.78	-26075121.56	-26075121.34	0.0533	0.0027
Saturn	-76096-05-20 08:52 J	-26072501.28	-26072501.13	-26072500.96	0.0271	0.0202
Mars	-76096-06-14 15:20 J	-26072475.99	-26072475.86	-26072475.73	0.1689	0.1276
Saturn	-76095-05-31 17:16 J	-26072125.00	-26072124.78	-26072124.55	0.0268	0.0111
Saturn	-76094-06-11 23:16 J	-26071748.76	-26071748.53	-26071748.29	0.0265	0.0011
Saturn	-76093-06-22 09:49 J	-26071372.30	-26071372.09	-26071371.87	0.0263	0.0103
Saturn	-76092-07-03 17:30 J	-26070995.89	-26070995.77	-26070995.62	0.0262	0.0216
Jupiter	-76091-03-22 23:01 J	-26070733.75	-26070733.54	-26070733.33	0.0533	0.0241

Neptune -76087-04-09 01:54 J -26069255.48 -26069255.42 -26069255.31 0.0089 0.0084
 Neptune -76086-04-11 06:28 J -26068888.38 -26068888.23 -26068888.03 0.0089 0.0062
 Jupiter -76086-09-03 17:59 J -26068742.89 -26068742.75 -26068742.59 0.0494 0.0369
 Neptune -76085-04-12 17:01 J -26068520.97 -26068520.79 -26068520.56 0.0089 0.0055
 Neptune -76084-04-15 02:52 J -26068153.58 -26068153.38 -26068153.13 0.0089 0.0033
 Neptune -76083-04-17 09:20 J -26067786.35 -26067786.11 -26067785.86 0.0089 0.0025
 Neptune -76082-04-19 23:44 J -26067418.76 -26067418.51 -26067418.27 0.0089 0.0002
 Neptune -76081-04-21 02:08 J -26067051.66 -26067051.41 -26067051.16 0.0089 0.0005
 Saturn -76081-11-16 17:01 J -26066841.84 -26066841.79 -26066841.70 0.0290 0.0279
 Neptune -76080-04-23 17:59 J -26066683.98 -26066683.75 -26066683.50 0.0089 0.0028
 Saturn -76080-12-01 15:49 J -26066462.05 -26066461.84 -26066461.61 0.0293 0.0138
 Jupiter -76079-03-27 11:59 J -26066346.12 -26066346.00 -26066345.88 0.0533 0.0449
 Neptune -76079-04-25 20:37 J -26066316.84 -26066316.64 -26066316.39 0.0089 0.0035
 Saturn -76079-12-16 22:32 J -26066081.80 -26066081.56 -26066081.32 0.0297 0.0016
 Neptune -76078-04-28 10:32 J -26065949.24 -26065949.06 -26065948.84 0.0089 0.0057
 Saturn -76077-01-01 09:06 J -26065701.30 -26065701.12 -26065700.92 0.0299 0.0177
 Neptune -76077-04-29 17:16 J -26065581.95 -26065581.78 -26065581.62 0.0089 0.0064
 Neptune -76076-05-02 01:40 J -26065214.45 -26065214.43 -26065214.34 0.0089 0.0087
 Pluto -76075-02-28 22:04 J -26064911.73 -26064911.58 -26064911.38 0.0079 0.0059
 Uranus -76075-12-31 04:18 J -26064606.42 -26064606.32 -26064606.21 0.0132 0.0119
 Jupiter -76074-09-08 09:06 J -26064355.35 -26064355.12 -26064354.89 0.0493 0.0172
 Uranus -76073-01-04 15:35 J -26064237.07 -26064236.85 -26064236.62 0.0132 0.0068
 Uranus -76072-01-07 18:56 J -26063867.94 -26063867.71 -26063867.47 0.0132 0.0044
 Uranus -76071-01-12 05:30 J -26063498.53 -26063498.27 -26063498.00 0.0132 0.0004
 Mars -76071-12-17 13:54 J -26063159.09 -26063158.92 -26063158.75 0.1851 0.0845
 Uranus -76070-01-16 06:56 J -26063129.44 -26063129.21 -26063128.96 0.0131 0.0037
 Uranus -76069-01-20 16:32 J -26062760.01 -26062759.81 -26062759.57 0.0131 0.0074
 Uranus -76068-01-23 17:01 J -26062390.88 -26062390.79 -26062390.65 0.0131 0.0116
 Saturn -76067-05-15 09:20 J -26061914.20 -26061914.11 -26061914.00 0.0272 0.0245
 Saturn -76066-05-27 03:49 J -26061537.51 -26061537.34 -26061537.13 0.0269 0.0153

Saturn	-76065-06-06 17:44 J	-26061161.00	-26061160.76	-26061160.52	0.0266	0.0057
Saturn	-76064-06-17 20:37 J	-26060784.89	-26060784.64	-26060784.40	0.0264	0.0053
Saturn	-76063-06-28 23:16 J	-26060408.72	-26060408.53	-26060408.34	0.0262	0.0167
Jupiter	-76062-09-12 17:30 J	-26059968.00	-26059967.77	-26059967.54	0.0493	0.0009
Saturn	-76051-11-25 12:42 J	-26055876.14	-26055875.97	-26055875.78	0.0291	0.0203
Jupiter	-76050-09-17 13:40 J	-26055580.15	-26055579.93	-26055579.71	0.0493	0.0198
Saturn	-76050-12-10 13:40 J	-26055496.18	-26055495.93	-26055495.67	0.0295	0.0054
Mars	-76049-06-07 23:01 J	-26055315.67	-26055315.54	-26055315.40	0.1713	0.1200
Saturn	-76049-12-24 17:59 J	-26055115.98	-26055115.75	-26055115.50	0.0297	0.0104
Saturn	-76047-01-08 23:44 J	-26054735.62	-26054735.51	-26054735.38	0.0299	0.0260
Jupiter	-76038-09-21 15:20 J	-26051192.98	-26051192.86	-26051192.75	0.0493	0.0429
Saturn	-76037-05-21 09:35 J	-26050950.26	-26050950.10	-26050949.91	0.0271	0.0192
Saturn	-76036-06-01 18:56 J	-26050573.94	-26050573.71	-26050573.49	0.0268	0.0098
Saturn	-76035-06-13 07:25 J	-26050197.43	-26050197.19	-26050196.96	0.0265	0.0009
Saturn	-76034-06-24 17:16 J	-26049820.99	-26049820.78	-26049820.56	0.0264	0.0121
Saturn	-76033-07-04 18:56 J	-26049444.82	-26049444.71	-26049444.58	0.0262	0.0231
Jupiter	-76032-03-12 03:49 J	-26049194.53	-26049194.34	-26049194.15	0.0533	0.0270
Uranus	-76031-06-26 04:18 J	-26048723.41	-26048723.32	-26048723.18	0.0146	0.0129
Uranus	-76030-07-01 01:54 J	-26048353.64	-26048353.42	-26048353.18	0.0147	0.0069
Uranus	-76029-07-05 05:59 J	-26047983.48	-26047983.25	-26047983.00	0.0147	0.0019
Uranus	-76028-07-10 08:08 J	-26047613.41	-26047613.16	-26047612.90	0.0147	0.0025
Uranus	-76027-07-15 10:47 J	-26047243.24	-26047243.05	-26047242.85	0.0147	0.0090
Uranus	-76026-07-20 17:01 J	-26046872.89	-26046872.79	-26046872.65	0.0147	0.0129
Saturn	-76022-11-19 06:13 J	-26045290.33	-26045290.24	-26045290.12	0.0290	0.0262
Saturn	-76021-12-03 08:23 J	-26044910.37	-26044910.15	-26044909.92	0.0294	0.0117
Jupiter	-76020-03-16 23:16 J	-26044806.77	-26044806.53	-26044806.30	0.0533	0.0007
Saturn	-76020-12-18 16:32 J	-26044530.05	-26044529.81	-26044529.57	0.0297	0.0041
Saturn	-76018-01-03 02:23 J	-26044149.58	-26044149.40	-26044149.22	0.0299	0.0199
Jupiter	-76008-03-21 15:35 J	-26040419.05	-26040418.85	-26040418.64	0.0534	0.0205
Saturn	-76008-05-16 18:56 J	-26040362.81	-26040362.71	-26040362.58	0.0272	0.0235

Saturn -76007-05-28 13:54 J -26039986.12 -26039985.92 -26039985.71 0.0269 0.0139

Saturn -76006-06-08 21:20 J -26039609.86 -26039609.61 -26039609.36 0.0266 0.0039

Neptune -76006-10-06 09:49 J -26039490.16 -26039490.09 -26039489.97 0.0089 0.0083

Saturn -76005-06-18 23:59 J -26039233.73 -26039233.50 -26039233.26 0.0264 0.0073

Neptune -76005-10-07 22:18 J -26039122.71 -26039122.57 -26039122.44 0.0089 0.0075

Saturn -76004-06-30 08:52 J -26038857.29 -26038857.13 -26038856.96 0.0262 0.0186

Neptune -76004-10-10 11:59 J -26038755.20 -26038755.00 -26038754.76 0.0088 0.0053

Jupiter -76003-09-03 00:13 J -26038427.65 -26038427.49 -26038427.33 0.0493 0.0376

Neptune -76003-10-13 04:47 J -26038387.51 -26038387.30 -26038387.07 0.0088 0.0045

Neptune -76002-10-15 14:37 J -26038020.14 -26038019.89 -26038019.61 0.0088 0.0022

Neptune -76001-10-17 11:30 J -26037652.27 -26037652.02 -26037651.76 0.0088 0.0014

76TH MILLENNIUM BCE

This is a list of transits of Moon in the 76th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-76000-10-19 19:11 J	-26037284.96	-26037284.70	-26037284.43	0.0088	0.0011		
Neptune	-75999-10-22 16:47 J	-26036917.05	-26036916.80	-26036916.52	0.0088	0.0017		
Neptune	-75998-10-25 00:28 J	-26036549.69	-26036549.48	-26036549.23	0.0088	0.0042		
Neptune	-75997-10-26 20:23 J	-26036181.86	-26036181.65	-26036181.40	0.0088	0.0048		
Jupiter	-75996-03-26 20:08 J	-26036030.79	-26036030.66	-26036030.52	0.0534	0.0425		
Neptune	-75996-10-29 07:11 J	-26035814.33	-26035814.20	-26035814.04	0.0088	0.0072		
Neptune	-75995-10-31 22:32 J	-26035446.65	-26035446.56	-26035446.40	0.0088	0.0079		
Saturn	-75992-11-27 01:40 J	-26034324.62	-26034324.43	-26034324.22	0.0292	0.0181		

Jupiter -75991-09-07 08:23 J -26034040.36 -26034040.15 -26034039.94 0.0493 0.0196
 Saturn -75991-12-12 01:54 J -26033944.67 -26033944.42 -26033944.16 0.0295 0.0028
 Uranus -75991-12-31 13:11 J -26033925.09 -26033924.95 -26033924.79 0.0132 0.0105
 Saturn -75990-12-27 07:54 J -26033564.40 -26033564.17 -26033563.95 0.0298 0.0130
 Uranus -75989-01-04 23:01 J -26033555.73 -26033555.54 -26033555.31 0.0132 0.0080
 Uranus -75988-01-08 04:04 J -26033186.57 -26033186.33 -26033186.08 0.0132 0.0029
 Saturn -75988-01-10 16:04 J -26033183.90 -26033183.83 -26033183.74 0.0299 0.0282
 Uranus -75987-01-12 13:40 J -26032817.19 -26032816.93 -26032816.66 0.0132 0.0003
 Uranus -75986-01-16 16:47 J -26032448.03 -26032447.80 -26032447.56 0.0131 0.0043
 Uranus -75985-01-21 01:25 J -26032078.64 -26032078.44 -26032078.22 0.0131 0.0079
 Uranus -75984-01-24 02:52 J -26031709.49 -26031709.38 -26031709.23 0.0131 0.0112
 Jupiter -75979-09-11 23:59 J -26029652.74 -26029652.50 -26029652.26 0.0493 0.0037
 Saturn -75978-05-23 13:11 J -26029399.13 -26029398.95 -26029398.77 0.0271 0.0182
 Saturn -75977-06-03 03:49 J -26029022.56 -26029022.34 -26029022.11 0.0268 0.0083
 Saturn -75976-06-14 17:16 J -26028646.01 -26028645.78 -26028645.54 0.0265 0.0025
 Saturn -75975-06-25 21:20 J -26028269.82 -26028269.61 -26028269.40 0.0264 0.0141
 Saturn -75974-07-06 23:16 J -26027893.60 -26027893.53 -26027893.46 0.0262 0.0250
 Mars -75970-06-11 04:04 J -26026458.51 -26026458.33 -26026458.16 0.1707 0.0089
 Jupiter -75967-09-16 04:32 J -26025265.53 -26025265.31 -26025265.08 0.0493 0.0171
 Saturn -75963-11-21 03:49 J -26023738.46 -26023738.34 -26023738.20 0.0290 0.0243
 Saturn -75962-12-06 07:11 J -26023358.43 -26023358.20 -26023357.97 0.0294 0.0093
 Saturn -75961-12-20 13:40 J -26022978.17 -26022977.93 -26022977.68 0.0297 0.0066
 Saturn -75959-01-04 20:52 J -26022597.80 -26022597.63 -26022597.46 0.0299 0.0222
 Jupiter -75955-09-21 02:08 J -26020877.53 -26020877.41 -26020877.29 0.0493 0.0417
 Jupiter -75949-03-10 23:16 J -26018879.72 -26018879.53 -26018879.34 0.0533 0.0305
 Saturn -75949-05-18 07:25 J -26018811.32 -26018811.19 -26018811.05 0.0272 0.0222
 Saturn -75948-05-29 20:37 J -26018434.85 -26018434.64 -26018434.41 0.0268 0.0126
 Saturn -75947-06-10 01:40 J -26018058.67 -26018058.43 -26018058.18 0.0266 0.0025
 Uranus -75947-06-26 11:59 J -26018042.14 -26018042.00 -26018041.84 0.0146 0.0115
 Saturn -75946-06-21 10:47 J -26017682.27 -26017682.05 -26017681.83 0.0264 0.0092

Uranus -75946-07-01 08:23 J -26017672.37 -26017672.15 -26017671.92 0.0147 0.0074
 Saturn -75945-07-01 21:20 J -26017305.75 -26017305.61 -26017305.45 0.0262 0.0205
 Uranus -75945-07-05 13:40 J -26017302.17 -26017301.93 -26017301.69 0.0147 0.0021
 Uranus -75944-07-10 13:54 J -26016932.17 -26016931.92 -26016931.67 0.0147 0.0038
 Uranus -75943-07-15 17:30 J -26016561.96 -26016561.77 -26016561.55 0.0147 0.0079
 Uranus -75942-07-20 22:04 J -26016191.60 -26016191.58 -26016191.50 0.0147 0.0145
 Jupiter -75937-03-15 17:44 J -26014491.98 -26014491.76 -26014491.54 0.0534 0.0039
 Saturn -75933-11-28 18:28 J -26012772.93 -26012772.73 -26012772.51 0.0292 0.0158
 Saturn -75932-12-13 21:49 J -26012392.83 -26012392.59 -26012392.34 0.0295 0.0003
 Saturn -75931-12-29 06:13 J -26012012.43 -26012012.24 -26012012.02 0.0298 0.0157
 Jupiter -75925-03-21 00:28 J -26010103.70 -26010103.48 -26010103.26 0.0534 0.0175
 Neptune -75923-04-08 10:32 J -26009355.12 -26009355.06 -26009354.94 0.0089 0.0083
 Neptune -75922-04-10 21:06 J -26008987.74 -26008987.62 -26008987.44 0.0089 0.0072
 Neptune -75921-04-12 07:40 J -26008620.35 -26008620.18 -26008619.96 0.0089 0.0054
 Neptune -75920-04-14 12:56 J -26008253.17 -26008252.96 -26008252.72 0.0089 0.0042
 Saturn -75920-05-13 05:44 J -26008224.32 -26008224.26 -26008224.18 0.0274 0.0263
 Jupiter -75920-09-01 18:42 J -26008112.85 -26008112.72 -26008112.59 0.0493 0.0404
 Neptune -75919-04-17 03:20 J -26007885.58 -26007885.36 -26007885.10 0.0089 0.0024
 Saturn -75919-05-24 23:59 J -26007847.67 -26007847.50 -26007847.31 0.0270 0.0169
 Neptune -75918-04-19 05:59 J -26007518.49 -26007518.25 -26007518.00 0.0089 0.0013
 Saturn -75918-06-05 16:47 J -26007471.02 -26007470.80 -26007470.57 0.0267 0.0069
 Neptune -75917-04-20 21:49 J -26007150.84 -26007150.59 -26007150.33 0.0089 0.0006
 Saturn -75917-06-16 00:42 J -26007094.72 -26007094.47 -26007094.22 0.0265 0.0042
 Neptune -75916-04-23 00:42 J -26006783.70 -26006783.47 -26006783.22 0.0089 0.0016
 Saturn -75916-06-27 01:40 J -26006718.61 -26006718.43 -26006718.22 0.0263 0.0163
 Neptune -75915-04-25 13:54 J -26006416.14 -26006415.92 -26006415.67 0.0089 0.0035
 Pluto -75915-08-25 16:18 J -26006293.82 -26006293.82 -26006293.77 0.0065 0.0065
 Neptune -75914-04-27 21:06 J -26006048.81 -26006048.62 -26006048.40 0.0089 0.0046
 Pluto -75914-08-27 00:13 J -26005927.71 -26005927.49 -26005927.24 0.0065 0.0026
 Jupiter -75913-03-25 15:35 J -26005716.00 -26005715.85 -26005715.70 0.0534 0.0400

Neptune -75913-04-29 05:59 J -26005681.41 -26005681.25 -26005681.06 0.0089 0.0064
 Neptune -75912-05-01 18:13 J -26005313.86 -26005313.74 -26005313.60 0.0089 0.0075
 Jupiter -75908-09-06 13:11 J -26003725.16 -26003724.95 -26003724.74 0.0493 0.0228
 Uranus -75907-12-31 23:44 J -26003243.61 -26003243.51 -26003243.37 0.0132 0.0115
 Uranus -75905-01-05 08:23 J -26002874.36 -26002874.15 -26002873.90 0.0132 0.0065
 Uranus -75904-01-08 14:23 J -26002505.13 -26002504.90 -26002504.65 0.0132 0.0040
 Saturn -75904-11-23 02:23 J -26002186.54 -26002186.40 -26002186.23 0.0290 0.0225
 Uranus -75903-01-12 22:47 J -26002135.82 -26002135.55 -26002135.29 0.0132 0.0010
 Saturn -75903-12-08 03:35 J -26001806.59 -26001806.35 -26001806.10 0.0294 0.0072
 Uranus -75902-01-17 02:23 J -26001766.62 -26001766.40 -26001766.15 0.0131 0.0041
 Saturn -75902-12-23 07:40 J -26001426.43 -26001426.18 -26001425.93 0.0297 0.0090
 Uranus -75901-01-21 09:35 J -26001397.29 -26001397.10 -26001396.88 0.0131 0.0081
 Saturn -75900-01-06 12:56 J -26001046.10 -26001045.96 -26001045.82 0.0299 0.0248
 Uranus -75900-01-24 12:13 J -26001028.06 -26001027.99 -26001027.87 0.0131 0.0121
 Jupiter -75896-09-10 18:42 J -25999337.96 -25999337.72 -25999337.48 0.0493 0.0058
 Mars -75891-06-13 03:20 J -25997601.52 -25997601.36 -25997601.20 0.1702 0.0705
 Saturn -75890-05-20 17:30 J -25997259.93 -25997259.77 -25997259.62 0.0271 0.0206
 Saturn -75889-05-31 01:54 J -25996883.63 -25996883.42 -25996883.18 0.0268 0.0113
 Saturn -75888-06-11 11:44 J -25996507.24 -25996507.01 -25996506.77 0.0266 0.0008
 Saturn -75887-06-23 00:13 J -25996130.70 -25996130.49 -25996130.27 0.0264 0.0111
 Saturn -75886-07-04 05:59 J -25995754.38 -25995754.25 -25995754.12 0.0262 0.0223
 Jupiter -75884-09-15 14:52 J -25994950.10 -25994949.88 -25994949.66 0.0493 0.0159
 Saturn -75875-11-16 19:25 J -25991600.75 -25991600.69 -25991600.64 0.0289 0.0281
 Saturn -75874-12-01 17:16 J -25991220.99 -25991220.78 -25991220.56 0.0293 0.0139
 Saturn -75873-12-15 23:59 J -25990840.74 -25990840.50 -25990840.26 0.0296 0.0021
 Jupiter -75872-09-19 21:49 J -25990562.74 -25990562.59 -25990562.44 0.0493 0.0395
 Saturn -75872-12-31 09:35 J -25990460.28 -25990460.10 -25990459.90 0.0298 0.0183
 Jupiter -75866-03-10 20:23 J -25988564.82 -25988564.65 -25988564.47 0.0533 0.0334
 Mars -75866-12-13 23:01 J -25988286.76 -25988286.54 -25988286.33 0.1831 0.0503
 Uranus -75863-06-26 17:59 J -25987360.86 -25987360.75 -25987360.64 0.0146 0.0129

Uranus -75862-07-01 12:42 J -25986991.18 -25986990.97 -25986990.73 0.0147 0.0067
 Saturn -75861-05-14 17:01 J -25986672.88 -25986672.79 -25986672.68 0.0273 0.0248
 Uranus -75861-07-05 19:25 J -25986620.93 -25986620.69 -25986620.44 0.0147 0.0019
 Saturn -75860-05-26 14:52 J -25986296.07 -25986295.88 -25986295.69 0.0270 0.0155
 Uranus -75860-07-10 18:28 J -25986250.98 -25986250.73 -25986250.47 0.0147 0.0029
 Saturn -75859-06-07 03:06 J -25985919.61 -25985919.37 -25985919.13 0.0267 0.0053
 Uranus -75859-07-16 00:13 J -25985880.68 -25985880.49 -25985880.30 0.0147 0.0094
 Saturn -75858-06-18 05:59 J -25985543.49 -25985543.25 -25985543.00 0.0265 0.0061
 Uranus -75858-07-21 03:35 J -25985510.46 -25985510.35 -25985510.24 0.0147 0.0133
 Saturn -75857-06-28 11:59 J -25985167.16 -25985167.00 -25985166.82 0.0263 0.0180
 Jupiter -75854-03-16 01:11 J -25984176.68 -25984176.45 -25984176.21 0.0533 0.0069
 Saturn -75845-11-24 22:32 J -25980634.73 -25980634.56 -25980634.37 0.0291 0.0205
 Mars -75844-06-06 00:56 J -25980441.48 -25980441.46 -25980441.44 0.1727 0.1712
 Saturn -75844-12-09 21:35 J -25980254.85 -25980254.60 -25980254.34 0.0294 0.0050
 Saturn -75843-12-25 01:11 J -25979874.68 -25979874.45 -25979874.21 0.0297 0.0115
 Jupiter -75842-03-20 11:59 J -25979789.22 -25979789.00 -25979788.77 0.0533 0.0129
 Neptune -75842-10-05 16:04 J -25979589.83 -25979589.83 -25979589.80 0.0089 0.0088
 Saturn -75841-01-09 07:54 J -25979494.25 -25979494.17 -25979494.06 0.0299 0.0274
 Neptune -75841-10-07 05:01 J -25979222.39 -25979222.29 -25979222.15 0.0089 0.0079
 Neptune -75840-10-09 23:30 J -25978854.71 -25978854.52 -25978854.33 0.0089 0.0058
 Neptune -75839-10-12 08:08 J -25978487.37 -25978487.16 -25978486.91 0.0089 0.0048
 Neptune -75838-10-15 05:30 J -25978119.51 -25978119.27 -25978119.02 0.0088 0.0028
 Jupiter -75837-09-01 03:35 J -25977797.47 -25977797.35 -25977797.22 0.0494 0.0420
 Neptune -75837-10-16 12:28 J -25977752.23 -25977751.98 -25977751.71 0.0088 0.0018
 Neptune -75836-10-19 10:18 J -25977384.34 -25977384.07 -25977383.80 0.0088 0.0001
 Neptune -75835-10-21 18:28 J -25977016.98 -25977016.73 -25977016.47 0.0088 0.0014
 Neptune -75834-10-24 13:11 J -25976649.20 -25976648.95 -25976648.69 0.0088 0.0032
 Neptune -75833-10-26 00:42 J -25976281.68 -25976281.47 -25976281.24 0.0088 0.0046
 Neptune -75832-10-28 15:06 J -25975914.04 -25975913.87 -25975913.65 0.0088 0.0063
 Saturn -75831-05-21 23:44 J -25975708.66 -25975708.51 -25975708.32 0.0271 0.0194

Neptune -75831-10-31 07:54 J -25975546.28 -25975546.17 -25975546.02 0.0088 0.0076
 Jupiter -75830-03-25 14:37 J -25975401.06 -25975400.89 -25975400.73 0.0533 0.0358
 Saturn -75830-06-02 11:44 J -25975332.23 -25975332.01 -25975331.79 0.0268 0.0099
 Saturn -75829-06-13 01:40 J -25974955.67 -25974955.43 -25974955.20 0.0265 0.0010
 Saturn -75828-06-24 10:04 J -25974579.29 -25974579.08 -25974578.86 0.0263 0.0126
 Saturn -75827-07-05 10:47 J -25974203.14 -25974203.05 -25974202.95 0.0262 0.0240
 Pluto -75826-03-04 00:13 J -25973961.61 -25973961.49 -25973961.31 0.0079 0.0064
 Jupiter -75825-09-05 08:08 J -25973410.36 -25973410.16 -25973409.95 0.0493 0.0247
 Uranus -75822-01-01 08:23 J -25972562.29 -25972562.15 -25972561.98 0.0132 0.0103
 Uranus -75821-01-05 16:04 J -25972193.03 -25972192.83 -25972192.60 0.0132 0.0076
 Uranus -75820-01-08 23:59 J -25971823.74 -25971823.50 -25971823.25 0.0132 0.0025
 Uranus -75819-01-13 06:56 J -25971454.47 -25971454.21 -25971453.94 0.0132 0.0004
 Uranus -75818-01-17 12:42 J -25971085.19 -25971084.97 -25971084.73 0.0131 0.0049
 Uranus -75817-01-21 18:13 J -25970715.92 -25970715.74 -25970715.52 0.0131 0.0084
 Uranus -75816-01-24 22:18 J -25970346.65 -25970346.57 -25970346.44 0.0131 0.0120
 Saturn -75816-11-18 17:01 J -25970048.89 -25970048.79 -25970048.69 0.0289 0.0263
 Saturn -75815-12-03 17:59 J -25969668.97 -25969668.75 -25969668.52 0.0293 0.0116
 Saturn -75814-12-19 00:56 J -25969288.70 -25969288.46 -25969288.22 0.0296 0.0045
 Jupiter -75813-09-10 03:49 J -25969022.57 -25969022.34 -25969022.11 0.0493 0.0078
 Saturn -75812-01-02 08:37 J -25968908.31 -25968908.14 -25968907.95 0.0298 0.0207
 Mars -75812-06-15 05:44 J -25968744.35 -25968744.26 -25968744.16 0.1696 0.1456
 Saturn -75802-05-17 07:54 J -25965121.28 -25965121.17 -25965121.05 0.0272 0.0236
 Saturn -75801-05-28 02:08 J -25964744.62 -25964744.41 -25964744.21 0.0269 0.0140
 Jupiter -75801-09-14 07:25 J -25964635.42 -25964635.19 -25964634.95 0.0493 0.0133
 Saturn -75800-06-08 07:54 J -25964368.41 -25964368.17 -25964367.92 0.0267 0.0038
 Saturn -75799-06-19 13:25 J -25963992.16 -25963991.94 -25963991.70 0.0264 0.0077
 Saturn -75798-07-01 00:42 J -25963615.62 -25963615.47 -25963615.31 0.0263 0.0197
 Jupiter -75789-09-18 22:32 J -25960247.70 -25960247.56 -25960247.41 0.0493 0.0374
 Mars -75787-12-17 16:04 J -25959428.01 -25959427.83 -25959427.64 0.1841 0.0731
 Saturn -75786-11-27 12:42 J -25959083.16 -25959082.97 -25959082.76 0.0291 0.0183

Saturn -75785-12-11 13:40 J -25958703.18 -25958702.93 -25958702.67 0.0295 0.0028
 Saturn -75784-12-26 20:52 J -25958322.84 -25958322.63 -25958322.40 0.0298 0.0137
 Jupiter -75783-03-09 21:20 J -25958249.77 -25958249.61 -25958249.44 0.0533 0.0367
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 Jupiter -75510-03-18 00:13 J -25858528.72 -25858528.49 -25858528.25 0.0533 0.0015
 Neptune -75510-10-13 17:01 J -25858319.00 -25858318.79 -25858318.53 0.0089 0.0044
 Neptune -75509-10-15 03:20 J -25857951.59 -25857951.36 -25857951.10 0.0089 0.0024
 Neptune -75508-10-17 19:25 J -25857583.96 -25857583.69 -25857583.41 0.0088 0.0014
 Saturn -75507-05-24 09:20 J -25857365.27 -25857365.11 -25857364.94 0.0270 0.0187
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 Saturn -75506-06-04 22:32 J -25856988.79 -25856988.56 -25856988.32 0.0267 0.0083
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 Jupiter -75505-08-30 00:42 J -25856536.52 -25856536.47 -25856536.42 0.0494 0.0479
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Neptune -75503-10-29 22:32 J -25855745.72 -25855745.56 -25855745.36 0.0088 0.0065
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 Saturn -75360-05-21 05:01 J -25803676.42 -25803676.29 -25803676.14 0.0273 0.0213
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 Neptune -75348-10-07 12:13 J -25799154.14 -25799153.99 -25799153.85 0.0089 0.0072
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 Neptune -75344-10-17 01:54 J -25797683.66 -25797683.42 -25797683.16 0.0088 0.0014
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Saturn -75328-06-18 23:30 J -25791959.74 -25791959.52 -25791959.28 0.0264 0.0080
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 Jupiter -75249-03-21 06:56 J -25763194.40 -25763194.21 -25763194.02 0.0532 0.0287

Jupiter -75244-09-02 12:13 J -25761203.16 -25761202.99 -25761202.81 0.0495 0.0341
 Saturn -75242-05-24 01:40 J -25760574.60 -25760574.43 -25760574.25 0.0273 0.0195
 Saturn -75241-06-03 12:42 J -25760198.20 -25760197.97 -25760197.73 0.0269 0.0080
 Saturn -75240-06-15 01:25 J -25759821.67 -25759821.44 -25759821.21 0.0266 0.0047
 Saturn -75239-06-26 12:42 J -25759445.15 -25759444.97 -25759444.78 0.0264 0.0167
 Uranus -75236-12-31 03:35 J -25758161.38 -25758161.35 -25758161.30 0.0133 0.0131
 Uranus -75234-01-04 18:56 J -25757791.87 -25757791.71 -25757791.52 0.0132 0.0094
 Uranus -75233-01-08 19:54 J -25757422.91 -25757422.67 -25757422.42 0.0132 0.0044
 Uranus -75232-01-12 09:20 J -25757053.36 -25757053.11 -25757052.85 0.0132 0.0015
 Jupiter -75232-09-07 08:37 J -25756815.37 -25756815.14 -25756814.92 0.0495 0.0114
 Uranus -75231-01-16 08:52 J -25756684.37 -25756684.13 -25756683.87 0.0132 0.0039
 Uranus -75230-01-20 21:20 J -25756314.82 -25756314.61 -25756314.39 0.0131 0.0068
 Uranus -75229-01-24 19:54 J -25755945.78 -25755945.67 -25755945.53 0.0131 0.0115
 Saturn -75227-11-18 06:56 J -25754917.33 -25754917.21 -25754917.09 0.0287 0.0250
 Saturn -75226-12-03 04:18 J -25754537.54 -25754537.32 -25754537.09 0.0292 0.0107
 Saturn -75225-12-17 09:06 J -25754157.36 -25754157.12 -25754156.88 0.0295 0.0053
 Saturn -75223-01-01 17:44 J -25753776.93 -25753776.76 -25753776.59 0.0298 0.0215
 Jupiter -75220-09-11 18:42 J -25752427.96 -25752427.72 -25752427.48 0.0494 0.0126
 Mars -75219-12-16 13:25 J -25751967.12 -25751966.94 -25751966.76 0.1818 0.0430
 Saturn -75213-05-18 02:23 J -25749987.49 -25749987.40 -25749987.28 0.0274 0.0245
 Saturn -75212-05-30 01:25 J -25749610.64 -25749610.44 -25749610.23 0.0270 0.0134
 Saturn -75211-06-10 12:42 J -25749234.21 -25749233.97 -25749233.72 0.0267 0.0012
 Saturn -75210-06-21 15:20 J -25748858.07 -25748857.86 -25748857.63 0.0264 0.0116
 Saturn -75209-07-01 22:32 J -25748481.67 -25748481.56 -25748481.42 0.0262 0.0224
 Jupiter -75208-09-16 09:06 J -25748040.29 -25748040.12 -25748039.94 0.0494 0.0314
 Jupiter -75202-03-06 13:25 J -25746043.04 -25746042.94 -25746042.82 0.0531 0.0465
 Mars -75197-06-10 16:18 J -25744120.00 -25744119.82 -25744119.63 0.1736 0.0232
 Saturn -75197-11-25 14:52 J -25743952.07 -25743951.88 -25743951.66 0.0289 0.0177
 Jupiter -75196-09-21 01:11 J -25743652.51 -25743652.45 -25743652.39 0.0493 0.0476
 Saturn -75196-12-10 11:30 J -25743572.27 -25743572.02 -25743571.76 0.0293 0.0025

Saturn -75195-12-25 16:32 J -25743192.02 -25743191.81 -25743191.58 0.0297 0.0137
 Saturn -75193-01-10 02:37 J -25742811.41 -25742811.39 -25742811.33 0.0299 0.0294
 Uranus -75191-06-30 01:11 J -25741909.59 -25741909.45 -25741909.27 0.0147 0.0114
 Jupiter -75190-03-11 08:52 J -25741655.33 -25741655.13 -25741654.93 0.0532 0.0259
 Uranus -75190-07-04 20:52 J -25741539.85 -25741539.63 -25741539.39 0.0147 0.0046
 Uranus -75189-07-09 04:32 J -25741169.56 -25741169.31 -25741169.05 0.0147 0.0001
 Uranus -75188-07-14 00:28 J -25740799.70 -25740799.48 -25740799.24 0.0147 0.0058
 Uranus -75187-07-19 11:01 J -25740429.17 -25740429.04 -25740428.89 0.0148 0.0123
 Neptune -75184-10-06 19:54 J -25739253.80 -25739253.67 -25739253.52 0.0089 0.0076
 Saturn -75183-05-24 21:35 J -25739023.77 -25739023.60 -25739023.41 0.0273 0.0184
 Neptune -75183-10-09 08:52 J -25738886.27 -25738886.13 -25738885.96 0.0089 0.0070
 Saturn -75182-06-05 14:08 J -25738647.13 -25738646.91 -25738646.68 0.0269 0.0065
 Neptune -75182-10-11 21:35 J -25738518.82 -25738518.60 -25738518.36 0.0089 0.0048
 Saturn -75181-06-16 05:59 J -25738270.48 -25738270.25 -25738270.02 0.0266 0.0065
 Neptune -75181-10-13 15:20 J -25738151.08 -25738150.86 -25738150.62 0.0088 0.0041
 Saturn -75180-06-27 11:59 J -25737894.18 -25737894.00 -25737893.82 0.0264 0.0182
 Neptune -75180-10-16 00:13 J -25737783.74 -25737783.49 -25737783.22 0.0088 0.0019
 Neptune -75179-10-18 21:35 J -25737415.86 -25737415.60 -25737415.34 0.0088 0.0012
 Jupiter -75178-03-16 15:06 J -25737267.10 -25737266.87 -25737266.65 0.0532 0.0019
 Neptune -75178-10-21 04:32 J -25737048.56 -25737048.31 -25737048.04 0.0088 0.0010
 Neptune -75177-10-23 01:54 J -25736680.68 -25736680.42 -25736680.15 0.0088 0.0017
 Neptune -75176-10-25 10:04 J -25736313.30 -25736313.08 -25736312.83 0.0088 0.0038
 Neptune -75175-10-28 04:47 J -25735945.50 -25735945.30 -25735945.04 0.0088 0.0048
 Neptune -75174-10-30 16:32 J -25735577.95 -25735577.81 -25735577.61 0.0088 0.0067
 Neptune -75173-11-01 06:56 J -25735210.33 -25735210.21 -25735210.04 0.0088 0.0076
 Pluto -75170-08-30 04:18 J -25734178.39 -25734178.32 -25734178.25 0.0065 0.0062
 Pluto -75169-08-30 22:32 J -25733811.76 -25733811.56 -25733811.33 0.0065 0.0036
 Saturn -75168-11-19 18:28 J -25733365.86 -25733365.73 -25733365.59 0.0287 0.0236
 Saturn -75167-12-04 15:35 J -25732986.08 -25732985.85 -25732985.61 0.0292 0.0091
 Jupiter -75166-03-21 04:18 J -25732879.52 -25732879.32 -25732879.11 0.0532 0.0261

Saturn	-75166-12-19 17:59 J	-25732606.00	-25732605.75	-25732605.51	0.0295	0.0070
Saturn	-75164-01-02 23:16 J	-25732225.69	-25732225.53	-25732225.37	0.0298	0.0231
Jupiter	-75161-09-02 03:35 J	-25730887.51	-25730887.35	-25730887.19	0.0495	0.0348
Jupiter	-75154-03-26 03:35 J	-25728491.38	-25728491.35	-25728491.30	0.0533	0.0521
Saturn	-75154-05-20 08:37 J	-25728436.26	-25728436.14	-25728436.01	0.0274	0.0233
Saturn	-75153-05-31 03:06 J	-25728059.59	-25728059.37	-25728059.15	0.0270	0.0119
Saturn	-75152-06-11 10:32 J	-25727683.30	-25727683.06	-25727682.81	0.0267	0.0008
Uranus	-75152-12-31 14:52 J	-25727479.92	-25727479.88	-25727479.80	0.0133	0.0129
Saturn	-75151-06-22 19:11 J	-25727306.90	-25727306.70	-25727306.49	0.0264	0.0132
Uranus	-75150-01-05 06:42 J	-25727110.40	-25727110.22	-25727110.01	0.0132	0.0085
Saturn	-75150-07-04 05:59 J	-25726930.34	-25726930.25	-25726930.14	0.0262	0.0238
Uranus	-75149-01-09 07:25 J	-25726741.42	-25726741.19	-25726740.94	0.0132	0.0052
Jupiter	-75149-09-06 12:13 J	-25726500.23	-25726499.99	-25726499.75	0.0494	0.0113
Uranus	-75148-01-12 22:04 J	-25726371.84	-25726371.58	-25726371.33	0.0132	0.0002
Uranus	-75147-01-16 21:20 J	-25726002.85	-25726002.61	-25726002.35	0.0132	0.0030
Uranus	-75146-01-21 10:04 J	-25725633.26	-25725633.08	-25725632.87	0.0131	0.0083
Uranus	-75145-01-25 08:37 J	-25725264.26	-25725264.14	-25725264.00	0.0131	0.0113
Saturn	-75138-11-27 23:01 J	-25722400.74	-25722400.54	-25722400.33	0.0290	0.0159
Jupiter	-75137-09-11 02:08 J	-25722112.63	-25722112.41	-25722112.19	0.0494	0.0118
Saturn	-75137-12-11 23:01 J	-25722020.79	-25722020.54	-25722020.30	0.0293	0.0008
Saturn	-75136-12-27 06:13 J	-25721640.44	-25721640.24	-25721640.03	0.0297	0.0155
Jupiter	-75125-09-15 13:11 J	-25717725.14	-25717724.95	-25717724.75	0.0494	0.0289
Saturn	-75124-05-26 01:11 J	-25717472.62	-25717472.45	-25717472.26	0.0272	0.0170
Saturn	-75123-06-06 21:35 J	-25717095.83	-25717095.60	-25717095.37	0.0269	0.0047
Saturn	-75122-06-18 08:37 J	-25716719.37	-25716719.14	-25716718.90	0.0266	0.0081
Saturn	-75121-06-28 10:18 J	-25716343.22	-25716343.07	-25716342.90	0.0264	0.0198
Jupiter	-75119-03-05 14:08 J	-25715727.99	-25715727.91	-25715727.81	0.0531	0.0485
Mars	-75118-06-13 19:40 J	-25715262.84	-25715262.68	-25715262.51	0.1730	0.0655
Jupiter	-75113-09-19 21:35 J	-25713337.68	-25713337.60	-25713337.51	0.0494	0.0458
Saturn	-75109-11-21 08:08 J	-25711814.31	-25711814.16	-25711813.98	0.0288	0.0218

Saturn -75108-12-06 02:08 J -25711434.66 -25711434.41 -25711434.16 0.0292 0.0072
 Jupiter -75107-03-10 16:18 J -25711340.00 -25711339.82 -25711339.63 0.0531 0.0295
 Uranus -75107-06-30 14:52 J -25711228.07 -25711227.88 -25711227.67 0.0147 0.0095
 Saturn -75107-12-21 01:54 J -25711054.66 -25711054.42 -25711054.17 0.0296 0.0087
 Uranus -75106-07-05 11:01 J -25710858.25 -25710858.04 -25710857.80 0.0147 0.0055
 Saturn -75105-01-05 06:56 J -25710674.34 -25710674.21 -25710674.07 0.0298 0.0249
 Uranus -75105-07-09 18:13 J -25710488.00 -25710487.74 -25710487.49 0.0147 0.0011
 Uranus -75104-07-14 14:23 J -25710118.11 -25710117.90 -25710117.67 0.0147 0.0066
 Uranus -75103-07-20 00:13 J -25709747.63 -25709747.49 -25709747.32 0.0148 0.0117
 Neptune -75101-04-09 09:49 J -25709118.20 -25709118.09 -25709117.93 0.0089 0.0074
 Neptune -75100-04-11 20:23 J -25708750.81 -25708750.65 -25708750.47 0.0089 0.0068
 Neptune -75099-04-14 07:11 J -25708383.40 -25708383.20 -25708382.98 0.0089 0.0046
 Neptune -75098-04-16 11:59 J -25708016.22 -25708016.00 -25708015.77 0.0089 0.0041
 Neptune -75097-04-18 02:37 J -25707648.62 -25707648.39 -25707648.14 0.0089 0.0019
 Neptune -75096-04-20 05:30 J -25707281.52 -25707281.27 -25707281.03 0.0089 0.0014
 Jupiter -75095-03-15 07:40 J -25706952.42 -25706952.18 -25706951.95 0.0532 0.0054
 Neptune -75095-04-22 21:06 J -25706913.87 -25706913.62 -25706913.36 0.0089 0.0009
 Saturn -75095-05-21 13:54 J -25706885.07 -25706884.92 -25706884.77 0.0274 0.0218
 Neptune -75094-04-25 00:28 J -25706546.71 -25706546.48 -25706546.23 0.0089 0.0014
 Saturn -75094-06-02 02:52 J -25706508.60 -25706508.38 -25706508.14 0.0270 0.0101
 Neptune -75093-04-26 13:54 J -25706179.15 -25706178.92 -25706178.68 0.0089 0.0036
 Saturn -75093-06-12 14:37 J -25706132.12 -25706131.89 -25706131.65 0.0267 0.0025
 Neptune -75092-04-28 21:06 J -25705811.81 -25705811.62 -25705811.38 0.0089 0.0042
 Saturn -75092-06-24 04:04 J -25705755.51 -25705755.33 -25705755.12 0.0264 0.0150
 Neptune -75091-05-01 05:44 J -25705444.43 -25705444.26 -25705444.06 0.0089 0.0063
 Saturn -75091-07-05 11:01 J -25705379.09 -25705379.04 -25705378.96 0.0262 0.0252
 Neptune -75090-05-03 17:44 J -25705076.90 -25705076.76 -25705076.59 0.0089 0.0068
 Jupiter -75083-03-20 08:52 J -25702564.32 -25702564.13 -25702563.93 0.0532 0.0241
 Pluto -75081-03-07 06:42 J -25701846.36 -25701846.22 -25701846.03 0.0079 0.0061
 Saturn -75080-11-14 23:30 J -25701228.58 -25701228.52 -25701228.45 0.0286 0.0275

Saturn -75079-11-29 16:32 J -25700849.02 -25700848.81 -25700848.60 0.0290 0.0139
 Jupiter -75078-09-02 03:20 J -25700572.52 -25700572.36 -25700572.18 0.0495 0.0360
 Saturn -75078-12-14 18:42 J -25700468.96 -25700468.72 -25700468.47 0.0294 0.0015
 Saturn -75077-12-29 01:54 J -25700088.61 -25700088.42 -25700088.22 0.0297 0.0176
 Jupiter -75071-03-25 10:32 J -25698176.13 -25698176.06 -25698175.96 0.0533 0.0496
 Uranus -75067-01-01 05:01 J -25696798.35 -25696798.29 -25696798.19 0.0133 0.0126
 Uranus -75066-01-05 20:52 J -25696428.80 -25696428.63 -25696428.42 0.0132 0.0088
 Saturn -75066-05-16 08:08 J -25696298.21 -25696298.16 -25696298.09 0.0276 0.0267
 Jupiter -75066-09-06 13:25 J -25696185.16 -25696184.94 -25696184.72 0.0495 0.0132
 Uranus -75065-01-09 21:35 J -25696059.84 -25696059.60 -25696059.34 0.0132 0.0037
 Saturn -75065-05-27 11:01 J -25695921.23 -25695921.04 -25695920.85 0.0272 0.0153
 Uranus -75064-01-13 11:59 J -25695690.26 -25695690.00 -25695689.75 0.0132 0.0007
 Saturn -75064-06-08 04:18 J -25695544.56 -25695544.32 -25695544.08 0.0269 0.0028
 Uranus -75063-01-17 11:01 J -25695321.27 -25695321.04 -25695320.79 0.0132 0.0049
 Saturn -75063-06-19 09:49 J -25695168.31 -25695168.09 -25695167.85 0.0266 0.0100
 Uranus -75062-01-22 00:13 J -25694951.69 -25694951.49 -25694951.28 0.0131 0.0077
 Saturn -75062-06-30 15:35 J -25694791.97 -25694791.85 -25694791.70 0.0264 0.0214
 Uranus -75061-01-25 22:32 J -25694582.64 -25694582.56 -25694582.48 0.0131 0.0125
 Jupiter -75054-09-11 03:20 J -25691797.60 -25691797.36 -25691797.11 0.0494 0.0093
 Saturn -75050-11-23 22:18 J -25690262.75 -25690262.57 -25690262.38 0.0288 0.0199
 Saturn -75049-12-07 14:37 J -25689883.14 -25689882.89 -25689882.63 0.0292 0.0052
 Saturn -75048-12-22 16:04 J -25689503.06 -25689502.83 -25689502.60 0.0296 0.0108
 Saturn -75046-01-06 23:30 J -25689122.61 -25689122.52 -25689122.40 0.0298 0.0271
 Jupiter -75042-09-15 12:56 J -25687410.15 -25687409.96 -25687409.77 0.0494 0.0269
 Jupiter -75036-03-04 17:01 J -25685412.80 -25685412.79 -25685412.77 0.0530 0.0527
 Saturn -75036-05-22 17:30 J -25685333.93 -25685333.77 -25685333.60 0.0274 0.0204
 Saturn -75035-06-03 09:06 J -25684957.34 -25684957.12 -25684956.89 0.0270 0.0083
 Saturn -75034-06-15 01:25 J -25684580.66 -25684580.44 -25684580.20 0.0267 0.0045
 Saturn -75033-06-25 12:42 J -25684204.16 -25684203.97 -25684203.78 0.0264 0.0166
 Jupiter -75030-09-20 08:23 J -25683022.26 -25683022.15 -25683022.04 0.0494 0.0441

Jupiter -75024-03-09 08:23 J -25681025.34 -25681025.15 -25681024.97 0.0531 0.0327
 Uranus -75024-06-26 04:18 J -25680916.32 -25680916.32 -25680916.31 0.0146 0.0146
 Uranus -75023-07-01 05:44 J -25680546.42 -25680546.26 -25680546.06 0.0147 0.0105
 Uranus -75022-07-06 03:20 J -25680176.59 -25680176.36 -25680176.12 0.0147 0.0036
 Uranus -75021-07-10 10:04 J -25679806.34 -25679806.08 -25679805.82 0.0147 0.0011
 Saturn -75021-11-16 20:08 J -25679676.75 -25679676.66 -25679676.55 0.0286 0.0258
 Uranus -75020-07-15 06:56 J -25679436.41 -25679436.21 -25679435.98 0.0147 0.0071
 Neptune -75020-10-05 21:35 J -25679353.62 -25679353.60 -25679353.52 0.0089 0.0087
 Saturn -75020-12-01 14:52 J -25679297.10 -25679296.88 -25679296.65 0.0290 0.0117
 Uranus -75019-07-20 17:01 J -25679065.87 -25679065.79 -25679065.68 0.0148 0.0136
 Neptune -75019-10-08 09:20 J -25678986.26 -25678986.11 -25678985.92 0.0089 0.0069
 Saturn -75019-12-16 16:04 J -25678917.08 -25678916.83 -25678916.58 0.0294 0.0039
 Neptune -75018-10-11 04:47 J -25678618.47 -25678618.30 -25678618.09 0.0088 0.0059
 Saturn -75018-12-31 20:08 J -25678536.84 -25678536.66 -25678536.46 0.0297 0.0200
 Neptune -75017-10-12 12:42 J -25678251.19 -25678250.97 -25678250.71 0.0088 0.0041
 Neptune -75016-10-15 10:18 J -25677883.30 -25677883.07 -25677882.81 0.0088 0.0032
 Neptune -75015-10-17 17:44 J -25677516.01 -25677515.76 -25677515.50 0.0088 0.0012
 Neptune -75014-10-20 14:23 J -25677148.16 -25677147.90 -25677147.63 0.0088 0.0004
 Mars -75014-12-13 07:11 J -25677094.39 -25677094.20 -25677094.01 0.1799 0.0847
 Neptune -75013-10-21 23:16 J -25676780.77 -25676780.53 -25676780.27 0.0088 0.0018
 Jupiter -75012-03-14 13:25 J -25676637.16 -25676636.94 -25676636.72 0.0532 0.0072
 Neptune -75012-10-24 16:18 J -25676413.07 -25676412.82 -25676412.54 0.0088 0.0026
 Neptune -75011-10-27 05:59 J -25676045.46 -25676045.25 -25676045.03 0.0088 0.0046
 Neptune -75010-10-29 18:42 J -25675677.93 -25675677.72 -25675677.49 0.0088 0.0053
 Neptune -75009-10-31 12:42 J -25675310.10 -25675309.97 -25675309.82 0.0088 0.0074
 Neptune -75008-11-02 21:20 J -25674942.70 -25674942.61 -25674942.48 0.0088 0.0081
 Saturn -75007-05-17 21:06 J -25674746.70 -25674746.62 -25674746.53 0.0276 0.0255
 Saturn -75006-05-29 21:06 J -25674369.82 -25674369.62 -25674369.40 0.0272 0.0138
 Saturn -75005-06-09 08:08 J -25673993.41 -25673993.16 -25673992.91 0.0269 0.0008
 Saturn -75004-06-20 15:20 J -25673617.07 -25673616.86 -25673616.64 0.0266 0.0118

Saturn -75003-07-02 02:52 J -25673240.48 -25673240.38 -25673240.25 0.0264 0.0229

75TH MILLENNIUM BCE

This is a list of transits of Moon in the 75th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-75000-03-19 12:28 J		-25672249.19	-25672248.98	-25672248.76	0.0532	0.0222	
Jupiter	-74995-09-01 03:35 J		-25670257.49	-25670257.35	-25670257.21	0.0495	0.0388	
Mars	-74992-06-08 11:01 J		-25669246.17	-25669246.04	-25669245.90	0.1752	0.1206	
Saturn	-74991-11-25 12:42 J		-25668711.16	-25668710.97	-25668710.76	0.0288	0.0179	
Saturn	-74990-12-10 08:37 J		-25668331.38	-25668331.14	-25668330.88	0.0292	0.0029	
Saturn	-74989-12-24 13:54 J		-25667951.13	-25667950.92	-25667950.70	0.0296	0.0133	
Jupiter	-74988-03-24 01:54 J		-25667861.53	-25667861.42	-25667861.30	0.0532	0.0455	
Saturn	-74987-01-09 00:13 J		-25667570.53	-25667570.49	-25667570.44	0.0299	0.0292	
Uranus	-74983-01-01 19:11 J		-25666116.78	-25666116.70	-25666116.57	0.0133	0.0122	
Jupiter	-74983-09-05 17:59 J		-25665869.98	-25665869.75	-25665869.51	0.0495	0.0146	
Uranus	-74982-01-06 11:16 J		-25665747.23	-25665747.03	-25665746.81	0.0132	0.0076	
Uranus	-74981-01-10 11:44 J		-25665378.24	-25665378.01	-25665377.76	0.0132	0.0043	
Uranus	-74980-01-14 02:23 J		-25665008.65	-25665008.40	-25665008.14	0.0132	0.0012	
Uranus	-74979-01-18 01:54 J		-25664639.66	-25664639.42	-25664639.17	0.0131	0.0039	
Uranus	-74978-01-22 14:52 J		-25664270.05	-25664269.88	-25664269.69	0.0131	0.0093	
Uranus	-74977-01-26 12:42 J		-25663901.03	-25663900.97	-25663900.86	0.0131	0.0124	
Saturn	-74977-05-24 00:56 J		-25663782.63	-25663782.46	-25663782.29	0.0273	0.0189	
Saturn	-74976-06-04 21:35 J		-25663405.82	-25663405.60	-25663405.37	0.0270	0.0065	

Saturn -74975-06-16 13:11 J -25663029.18 -25663028.95 -25663028.71 0.0267 0.0065
 Saturn -74974-06-27 17:59 J -25662652.92 -25662652.75 -25662652.56 0.0264 0.0183
 Jupiter -74971-09-10 02:23 J -25661482.63 -25661482.40 -25661482.17 0.0494 0.0074
 Saturn -74962-11-19 20:52 J -25658124.76 -25658124.63 -25658124.49 0.0287 0.0238
 Saturn -74961-12-03 13:54 J -25657745.16 -25657744.92 -25657744.68 0.0291 0.0092
 Saturn -74960-12-18 12:28 J -25657365.23 -25657364.98 -25657364.73 0.0295 0.0065
 Jupiter -74959-09-14 20:52 J -25657094.84 -25657094.63 -25657094.42 0.0494 0.0241
 Saturn -74958-01-02 14:52 J -25656985.04 -25656984.88 -25656984.71 0.0297 0.0223
 Saturn -74948-05-19 11:16 J -25653195.13 -25653195.03 -25653194.90 0.0275 0.0241
 Saturn -74947-05-31 05:01 J -25652818.52 -25652818.29 -25652818.07 0.0271 0.0120
 Jupiter -74947-09-18 22:18 J -25652707.69 -25652707.57 -25652707.43 0.0493 0.0410
 Saturn -74946-06-11 14:37 J -25652442.13 -25652441.89 -25652441.65 0.0268 0.0012
 Saturn -74945-06-22 03:20 J -25652065.56 -25652065.36 -25652065.16 0.0266 0.0137
 Saturn -74944-07-03 14:37 J -25651688.97 -25651688.89 -25651688.80 0.0264 0.0245
 Jupiter -74941-03-08 14:23 J -25650710.06 -25650709.90 -25650709.73 0.0531 0.0357
 Uranus -74939-07-01 19:40 J -25649864.89 -25649864.68 -25649864.47 0.0147 0.0086
 Uranus -74938-07-06 17:59 J -25649494.98 -25649494.75 -25649494.51 0.0147 0.0045
 Neptune -74937-04-08 17:59 J -25649217.84 -25649217.75 -25649217.63 0.0089 0.0081
 Uranus -74937-07-10 23:30 J -25649124.77 -25649124.52 -25649124.26 0.0147 0.0023
 Neptune -74936-04-11 05:44 J -25648850.39 -25648850.26 -25648850.08 0.0089 0.0069
 Uranus -74936-07-15 21:06 J -25648754.81 -25648754.62 -25648754.40 0.0148 0.0079
 Neptune -74935-04-13 10:32 J -25648483.25 -25648483.06 -25648482.85 0.0089 0.0055
 Uranus -74935-07-21 06:28 J -25648384.33 -25648384.23 -25648384.09 0.0148 0.0130
 Mars -74935-12-16 19:25 J -25648235.88 -25648235.69 -25648235.49 0.1808 0.0493
 Neptune -74934-04-16 01:40 J -25648115.63 -25648115.43 -25648115.19 0.0089 0.0043
 Neptune -74933-04-17 04:18 J -25647748.55 -25647748.32 -25647748.08 0.0089 0.0029
 Neptune -74932-04-19 19:54 J -25647380.91 -25647380.67 -25647380.41 0.0089 0.0015
 Saturn -74932-11-27 07:40 J -25647159.38 -25647159.18 -25647158.97 0.0289 0.0160
 Neptune -74931-04-22 00:13 J -25647013.74 -25647013.49 -25647013.25 0.0089 0.0002
 Saturn -74931-12-12 07:40 J -25646779.42 -25646779.18 -25646778.94 0.0293 0.0006

Neptune -74930-04-24 11:59 J -25646646.25 -25646646.00 -25646645.73 0.0089 0.0013
 Saturn -74930-12-27 14:52 J -25646399.08 -25646398.88 -25646398.67 0.0296 0.0157
 Jupiter -74929-03-13 07:54 J -25646322.40 -25646322.17 -25646321.94 0.0531 0.0107
 Neptune -74929-04-25 19:54 J -25646278.89 -25646278.67 -25646278.42 0.0089 0.0026
 Neptune -74928-04-28 03:06 J -25645911.58 -25645911.37 -25645911.12 0.0089 0.0039
 Neptune -74927-04-30 16:47 J -25645543.99 -25645543.80 -25645543.60 0.0089 0.0052
 Neptune -74926-05-02 19:54 J -25645176.82 -25645176.67 -25645176.48 0.0089 0.0066
 Neptune -74925-05-04 12:13 J -25644809.09 -25644808.99 -25644808.87 0.0089 0.0079
 Pluto -74921-08-31 16:18 J -25643229.08 -25643228.82 -25643228.55 0.0065 0.0004
 Saturn -74918-05-26 14:23 J -25642231.08 -25642230.90 -25642230.72 0.0273 0.0173
 Jupiter -74917-03-18 01:54 J -25641934.63 -25641934.42 -25641934.21 0.0532 0.0181
 Saturn -74917-06-06 11:30 J -25641854.25 -25641854.02 -25641853.79 0.0269 0.0047
 Saturn -74916-06-17 20:37 J -25641477.88 -25641477.64 -25641477.40 0.0266 0.0083
 Saturn -74915-06-28 23:44 J -25641101.65 -25641101.51 -25641101.34 0.0264 0.0201
 Mars -74913-06-11 02:23 J -25640388.60 -25640388.40 -25640388.20 0.1744 0.0053
 Jupiter -74912-08-31 07:25 J -25639942.32 -25639942.19 -25639942.04 0.0496 0.0403
 Jupiter -74905-03-23 04:47 J -25637546.44 -25637546.30 -25637546.16 0.0533 0.0415
 Saturn -74903-11-21 16:32 J -25636572.96 -25636572.81 -25636572.64 0.0287 0.0219
 Saturn -74902-12-06 07:40 J -25636193.42 -25636193.18 -25636192.92 0.0291 0.0072
 Saturn -74901-12-20 06:28 J -25635813.47 -25635813.23 -25635812.98 0.0295 0.0089
 Jupiter -74900-09-04 15:35 J -25635555.07 -25635554.85 -25635554.63 0.0495 0.0166
 Uranus -74899-01-02 10:47 J -25635435.15 -25635435.05 -25635434.92 0.0132 0.0118
 Saturn -74899-01-04 11:16 J -25635433.15 -25635433.03 -25635432.88 0.0298 0.0250
 Uranus -74898-01-07 02:08 J -25635065.61 -25635065.41 -25635065.19 0.0132 0.0079
 Uranus -74897-01-11 02:52 J -25634696.62 -25634696.38 -25634696.12 0.0132 0.0028
 Uranus -74896-01-14 17:16 J -25634327.04 -25634326.78 -25634326.52 0.0132 0.0003
 Uranus -74895-01-18 16:18 J -25633958.04 -25633957.82 -25633957.58 0.0131 0.0059
 Uranus -74894-01-23 05:01 J -25633588.46 -25633588.29 -25633588.08 0.0131 0.0087
 Saturn -74889-05-20 21:49 J -25631643.73 -25631643.59 -25631643.45 0.0274 0.0225
 Saturn -74888-06-01 12:13 J -25631267.21 -25631266.99 -25631266.76 0.0271 0.0104

Jupiter -74888-09-09 06:56 J -25631167.45 -25631167.21 -25631166.97 0.0494 0.0045
 Saturn -74887-06-13 03:06 J -25630890.60 -25630890.37 -25630890.14 0.0268 0.0028
 Saturn -74886-06-24 17:01 J -25630513.98 -25630513.79 -25630513.59 0.0265 0.0155
 Saturn -74885-07-04 22:18 J -25630137.61 -25630137.57 -25630137.53 0.0263 0.0259
 Jupiter -74876-09-13 11:44 J -25626780.23 -25626780.01 -25626779.79 0.0494 0.0207
 Saturn -74874-11-15 13:54 J -25625986.95 -25625986.92 -25625986.88 0.0285 0.0282
 Saturn -74873-11-29 06:56 J -25625607.42 -25625607.21 -25625606.99 0.0289 0.0142
 Saturn -74872-12-14 08:23 J -25625227.40 -25625227.15 -25625226.91 0.0293 0.0018
 Saturn -74871-12-29 14:08 J -25624847.10 -25624846.91 -25624846.71 0.0297 0.0182
 Jupiter -74864-09-18 07:40 J -25622392.32 -25622392.18 -25622392.04 0.0494 0.0394
 Saturn -74860-05-16 03:20 J -25621056.38 -25621056.36 -25621056.32 0.0276 0.0273
 Saturn -74859-05-28 05:44 J -25620679.44 -25620679.26 -25620679.06 0.0272 0.0158
 Jupiter -74858-03-08 05:44 J -25620395.42 -25620395.26 -25620395.10 0.0530 0.0395
 Saturn -74858-06-08 21:06 J -25620302.87 -25620302.62 -25620302.37 0.0269 0.0031
 Saturn -74857-06-19 01:54 J -25619926.64 -25619926.42 -25619926.18 0.0266 0.0103
 Uranus -74856-06-27 07:11 J -25619553.26 -25619553.20 -25619553.13 0.0146 0.0140
 Saturn -74856-06-30 10:18 J -25619550.19 -25619550.07 -25619549.93 0.0264 0.0217
 Uranus -74855-07-02 06:42 J -25619183.39 -25619183.22 -25619183.00 0.0147 0.0098
 Neptune -74855-10-07 16:18 J -25619085.94 -25619085.82 -25619085.64 0.0089 0.0072
 Uranus -74854-07-07 06:42 J -25618813.45 -25618813.22 -25618812.97 0.0147 0.0028
 Neptune -74854-10-09 23:30 J -25618718.67 -25618718.52 -25618718.32 0.0088 0.0067
 Uranus -74853-07-11 11:44 J -25618443.26 -25618443.01 -25618442.75 0.0147 0.0020
 Neptune -74853-10-11 21:20 J -25618350.83 -25618350.61 -25618350.37 0.0088 0.0044
 Uranus -74852-07-16 10:18 J -25618073.26 -25618073.07 -25618072.85 0.0148 0.0082
 Neptune -74852-10-14 04:32 J -25617983.52 -25617983.31 -25617983.05 0.0088 0.0039
 Uranus -74851-07-21 19:11 J -25617702.71 -25617702.70 -25617702.66 0.0148 0.0147
 Neptune -74851-10-17 00:56 J -25617615.73 -25617615.46 -25617615.19 0.0088 0.0016
 Neptune -74850-10-19 11:44 J -25617248.26 -25617248.01 -25617247.75 0.0088 0.0010
 Neptune -74849-10-21 03:35 J -25616880.61 -25616880.35 -25616880.07 0.0088 0.0012
 Neptune -74848-10-23 18:42 J -25616512.96 -25616512.72 -25616512.45 0.0088 0.0019

Neptune -74847-10-26 05:30 J -25616145.49 -25616145.27 -25616145.01 0.0088 0.0040
 Jupiter -74846-03-13 01:25 J -25616007.66 -25616007.44 -25616007.23 0.0531 0.0141
 Neptune -74846-10-29 00:42 J -25615777.68 -25615777.47 -25615777.24 0.0088 0.0047
 Neptune -74845-10-30 08:08 J -25615410.31 -25615410.16 -25615409.96 0.0088 0.0068
 Neptune -74844-11-02 05:44 J -25615042.38 -25615042.26 -25615042.10 0.0088 0.0075
 Saturn -74844-11-23 06:13 J -25615021.41 -25615021.24 -25615021.04 0.0288 0.0203
 Saturn -74843-12-07 22:47 J -25614641.79 -25614641.55 -25614641.29 0.0292 0.0052
 Saturn -74842-12-23 00:56 J -25614261.68 -25614261.46 -25614261.23 0.0296 0.0113
 Saturn -74840-01-06 09:35 J -25613881.18 -25613881.10 -25613881.00 0.0298 0.0275
 Jupiter -74834-03-18 06:42 J -25611619.44 -25611619.22 -25611619.00 0.0532 0.0156
 Mars -74834-06-14 19:40 J -25611530.84 -25611530.68 -25611530.52 0.1737 0.0928
 Pluto -74833-03-08 09:49 J -25611263.34 -25611263.09 -25611262.83 0.0079 0.0008
 Saturn -74830-05-23 05:01 J -25610092.44 -25610092.29 -25610092.13 0.0274 0.0210
 Saturn -74829-06-02 23:01 J -25609715.76 -25609715.54 -25609715.31 0.0270 0.0087
 Jupiter -74829-08-30 04:04 J -25609627.44 -25609627.33 -25609627.21 0.0495 0.0428
 Saturn -74828-06-14 16:32 J -25609339.04 -25609338.81 -25609338.57 0.0267 0.0047
 Saturn -74827-06-26 00:56 J -25608962.64 -25608962.46 -25608962.26 0.0265 0.0171
 Jupiter -74822-03-22 22:47 J -25607231.70 -25607231.55 -25607231.39 0.0533 0.0389
 Jupiter -74817-09-03 21:49 J -25605239.81 -25605239.59 -25605239.37 0.0495 0.0186
 Uranus -74815-01-03 00:56 J -25604753.57 -25604753.46 -25604753.31 0.0132 0.0114
 Saturn -74815-11-17 08:52 J -25604435.21 -25604435.13 -25604435.05 0.0286 0.0267
 Uranus -74814-01-07 16:04 J -25604384.04 -25604383.83 -25604383.59 0.0132 0.0068
 Saturn -74814-12-02 02:23 J -25604055.63 -25604055.40 -25604055.18 0.0290 0.0123
 Uranus -74813-01-11 17:16 J -25604015.02 -25604014.78 -25604014.52 0.0132 0.0034
 Saturn -74813-12-16 01:54 J -25603675.67 -25603675.42 -25603675.17 0.0294 0.0037
 Uranus -74812-01-15 07:25 J -25603645.44 -25603645.19 -25603644.93 0.0132 0.0022
 Saturn -74812-12-31 05:44 J -25603295.44 -25603295.26 -25603295.07 0.0297 0.0201
 Uranus -74811-01-19 07:11 J -25603276.43 -25603276.20 -25603275.96 0.0131 0.0050
 Uranus -74810-01-23 19:25 J -25602906.83 -25602906.69 -25602906.51 0.0131 0.0103
 Jupiter -74805-09-08 02:37 J -25600852.62 -25600852.39 -25600852.15 0.0495 0.0025

Saturn -74801-05-17 18:42 J -25599504.79 -25599504.72 -25599504.63 0.0276 0.0258
 Saturn -74800-05-29 16:18 J -25599128.02 -25599127.82 -25599127.60 0.0272 0.0141
 Saturn -74799-06-10 02:08 J -25598751.65 -25598751.41 -25598751.16 0.0268 0.0012
 Saturn -74798-06-21 11:01 J -25598375.25 -25598375.04 -25598374.83 0.0265 0.0119
 Saturn -74797-07-01 22:47 J -25597998.65 -25597998.55 -25597998.43 0.0263 0.0231
 Jupiter -74793-09-12 22:32 J -25596464.78 -25596464.56 -25596464.35 0.0494 0.0187
 Saturn -74785-11-24 19:11 J -25593469.89 -25593469.70 -25593469.51 0.0288 0.0186
 Saturn -74784-12-09 16:18 J -25593090.06 -25593089.82 -25593089.58 0.0293 0.0033
 Saturn -74783-12-24 21:49 J -25592709.80 -25592709.59 -25592709.37 0.0296 0.0133
 Saturn -74781-01-09 07:25 J -25592329.21 -25592329.19 -25592329.15 0.0299 0.0296
 Jupiter -74781-09-17 05:59 J -25592077.40 -25592077.25 -25592077.08 0.0494 0.0375
 Jupiter -74775-03-07 04:18 J -25590080.44 -25590080.32 -25590080.19 0.0531 0.0430
 Neptune -74772-04-10 07:40 J -25588950.31 -25588950.18 -25588949.99 0.0089 0.0069
 Neptune -74771-04-12 23:44 J -25588582.66 -25588582.51 -25588582.32 0.0089 0.0065
 Saturn -74771-05-24 14:37 J -25588541.04 -25588540.89 -25588540.71 0.0273 0.0195
 Uranus -74771-07-02 15:20 J -25588502.06 -25588501.86 -25588501.63 0.0147 0.0082
 Neptune -74770-04-15 02:23 J -25588215.61 -25588215.40 -25588215.17 0.0089 0.0042
 Saturn -74770-06-05 12:13 J -25588164.21 -25588163.99 -25588163.76 0.0270 0.0070
 Uranus -74770-07-07 16:18 J -25588132.05 -25588131.82 -25588131.58 0.0147 0.0039
 Neptune -74769-04-16 17:30 J -25587847.99 -25587847.77 -25587847.53 0.0089 0.0038
 Saturn -74769-06-16 01:40 J -25587787.67 -25587787.43 -25587787.19 0.0267 0.0061
 Uranus -74769-07-11 19:40 J -25587761.94 -25587761.68 -25587761.43 0.0147 0.0030
 Neptune -74768-04-18 22:04 J -25587480.81 -25587480.58 -25587480.33 0.0089 0.0016
 Saturn -74768-06-27 03:49 J -25587411.51 -25587411.34 -25587411.15 0.0264 0.0185
 Uranus -74768-07-16 19:11 J -25587391.89 -25587391.70 -25587391.49 0.0148 0.0086
 Neptune -74767-04-21 09:20 J -25587113.36 -25587113.11 -25587112.84 0.0089 0.0012
 Uranus -74767-07-22 02:52 J -25587021.46 -25587021.38 -25587021.29 0.0148 0.0139
 Neptune -74766-04-23 19:11 J -25586745.94 -25586745.70 -25586745.46 0.0089 0.0010
 Neptune -74765-04-25 01:40 J -25586378.68 -25586378.43 -25586378.17 0.0089 0.0015
 Neptune -74764-04-27 15:06 J -25586011.07 -25586010.87 -25586010.63 0.0089 0.0038

Jupiter -74763-03-12 09:20 J -25585692.34 -25585692.11 -25585691.89 0.0532 0.0154
 Neptune -74763-04-29 17:59 J -25585643.95 -25585643.75 -25585643.51 0.0089 0.0042
 Neptune -74762-05-02 10:04 J -25585276.24 -25585276.08 -25585275.89 0.0089 0.0064
 Neptune -74761-05-03 12:42 J -25584909.10 -25584908.97 -25584908.79 0.0089 0.0068
 Saturn -74756-11-18 22:04 J -25582883.69 -25582883.58 -25582883.45 0.0286 0.0250
 Saturn -74755-12-03 12:56 J -25582504.20 -25582503.96 -25582503.72 0.0290 0.0106
 Saturn -74754-12-18 10:18 J -25582124.32 -25582124.07 -25582123.81 0.0294 0.0052
 Saturn -74752-01-01 14:23 J -25581744.06 -25581743.90 -25581743.72 0.0297 0.0218
 Jupiter -74751-03-16 22:47 J -25581304.77 -25581304.55 -25581304.33 0.0532 0.0129
 Jupiter -74746-08-30 13:40 J -25579312.03 -25579311.93 -25579311.81 0.0496 0.0437
 Saturn -74742-05-20 04:32 J -25577953.42 -25577953.31 -25577953.19 0.0275 0.0242
 Saturn -74741-05-30 19:54 J -25577576.89 -25577576.67 -25577576.44 0.0271 0.0122
 Saturn -74740-06-11 07:25 J -25577200.43 -25577200.19 -25577199.95 0.0268 0.0006
 Jupiter -74739-03-22 03:49 J -25576916.50 -25576916.34 -25576916.17 0.0532 0.0355
 Saturn -74739-06-22 21:06 J -25576823.82 -25576823.62 -25576823.42 0.0265 0.0134
 Saturn -74738-07-04 05:30 J -25576447.35 -25576447.27 -25576447.16 0.0263 0.0243
 Jupiter -74734-09-03 19:25 J -25574924.90 -25574924.69 -25574924.47 0.0496 0.0195
 Uranus -74731-01-03 16:04 J -25574071.95 -25574071.83 -25574071.68 0.0132 0.0111
 Uranus -74730-01-08 06:28 J -25573702.43 -25573702.23 -25573701.99 0.0132 0.0070
 Mars -74730-12-13 00:28 J -25573363.63 -25573363.48 -25573363.33 0.1788 0.1052
 Uranus -74729-01-12 08:23 J -25573333.39 -25573333.15 -25573332.89 0.0132 0.0019
 Uranus -74728-01-15 21:49 J -25572963.84 -25572963.59 -25572963.32 0.0132 0.0013
 Uranus -74727-01-19 21:35 J -25572594.81 -25572594.60 -25572594.38 0.0131 0.0069
 Uranus -74726-01-24 09:35 J -25572225.26 -25572225.10 -25572224.92 0.0131 0.0097
 Saturn -74726-11-27 06:28 J -25571918.42 -25571918.23 -25571918.03 0.0289 0.0171
 Saturn -74725-12-11 06:56 J -25571538.45 -25571538.21 -25571537.96 0.0293 0.0018
 Saturn -74724-12-26 13:11 J -25571158.16 -25571157.95 -25571157.74 0.0296 0.0149
 Jupiter -74722-09-08 15:20 J -25570537.09 -25570536.86 -25570536.63 0.0495 0.0006
 Saturn -74712-05-26 01:54 J -25566989.60 -25566989.42 -25566989.25 0.0273 0.0179
 Saturn -74711-06-06 20:52 J -25566612.87 -25566612.63 -25566612.39 0.0269 0.0052

Saturn -74710-06-18 03:35 J -25566236.59 -25566236.35 -25566236.11 0.0266 0.0079
 Jupiter -74710-09-12 21:49 J -25566149.82 -25566149.59 -25566149.36 0.0494 0.0166
 Saturn -74709-06-28 07:25 J -25565860.33 -25565860.19 -25565860.02 0.0264 0.0199
 Mars -74708-06-09 13:25 J -25565514.08 -25565513.94 -25565513.79 0.1760 0.0960
 Jupiter -74698-09-17 13:25 J -25561762.09 -25561761.94 -25561761.78 0.0494 0.0365
 Saturn -74697-11-20 02:23 J -25561332.53 -25561332.40 -25561332.24 0.0287 0.0238
 Saturn -74696-12-04 16:04 J -25560953.07 -25560952.83 -25560952.58 0.0291 0.0094
 Saturn -74695-12-19 15:49 J -25560573.08 -25560572.84 -25560572.59 0.0295 0.0067
 Saturn -74693-01-03 23:30 J -25560192.66 -25560192.52 -25560192.36 0.0298 0.0233
 Jupiter -74692-03-06 11:16 J -25559765.15 -25559765.03 -25559764.90 0.0530 0.0448
 Neptune -74691-10-06 12:13 J -25559186.09 -25559185.99 -25559185.88 0.0089 0.0081
 Neptune -74690-10-09 09:06 J -25558818.28 -25558818.12 -25558817.93 0.0089 0.0066
 Neptune -74689-10-10 17:30 J -25558450.96 -25558450.77 -25558450.56 0.0088 0.0054
 Uranus -74688-06-28 03:49 J -25558190.40 -25558190.34 -25558190.25 0.0146 0.0138
 Neptune -74688-10-13 11:44 J -25558083.25 -25558083.01 -25558082.75 0.0088 0.0038
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 Neptune -74687-10-15 23:30 J -25557715.75 -25557715.52 -25557715.26 0.0088 0.0028
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 Neptune -74686-10-18 13:11 J -25557348.22 -25557347.95 -25557347.67 0.0088 0.0011
 Uranus -74685-07-12 05:30 J -25557080.52 -25557080.27 -25557080.01 0.0147 0.0025
 Neptune -74685-10-20 06:13 J -25556980.49 -25556980.24 -25556979.98 0.0088 0.0001
 Uranus -74684-07-17 06:28 J -25556710.41 -25556710.23 -25556710.03 0.0148 0.0090
 Neptune -74684-10-22 15:49 J -25556613.09 -25556612.84 -25556612.56 0.0088 0.0018
 Saturn -74683-05-21 06:42 J -25556402.34 -25556402.22 -25556402.07 0.0275 0.0229
 Neptune -74683-10-25 12:28 J -25556245.22 -25556244.98 -25556244.72 0.0088 0.0028
 Saturn -74682-06-01 22:47 J -25556025.77 -25556025.55 -25556025.33 0.0271 0.0106
 Neptune -74682-10-27 19:40 J -25555877.90 -25555877.68 -25555877.44 0.0088 0.0046
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 Neptune -74681-10-29 17:16 J -25555509.98 -25555509.78 -25555509.56 0.0088 0.0054
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Saturn -74680-06-24 03:20 J -25555272.56 -25555272.36 -25555272.16 0.0265 0.0149
 Neptune -74680-11-01 00:56 J -25555142.60 -25555142.46 -25555142.30 0.0088 0.0073
 Saturn -74679-07-05 04:32 J -25554896.36 -25554896.31 -25554896.23 0.0263 0.0252
 Neptune -74679-11-03 20:23 J -25554774.75 -25554774.65 -25554774.52 0.0088 0.0080
 Pluto -74673-09-01 21:35 J -25552645.79 -25552645.60 -25552645.35 0.0065 0.0036
 Pluto -74672-09-03 05:44 J -25552279.29 -25552279.26 -25552279.17 0.0065 0.0063
 Jupiter -74668-03-16 07:40 J -25550989.40 -25550989.18 -25550988.95 0.0531 0.0106
 Saturn -74667-11-28 15:49 J -25550367.04 -25550366.84 -25550366.63 0.0289 0.0157
 Saturn -74666-12-13 14:52 J -25549987.13 -25549986.88 -25549986.62 0.0293 0.0005
 Saturn -74665-12-27 17:59 J -25549606.95 -25549606.75 -25549606.52 0.0297 0.0163
 Jupiter -74663-08-29 14:23 J -25548996.99 -25548996.90 -25548996.78 0.0496 0.0443
 Jupiter -74656-03-21 00:56 J -25546601.64 -25546601.46 -25546601.27 0.0532 0.0328
 Saturn -74653-05-27 07:54 J -25545438.35 -25545438.17 -25545437.97 0.0272 0.0166
 Saturn -74652-06-07 20:08 J -25545061.91 -25545061.66 -25545061.41 0.0269 0.0034
 Saturn -74651-06-19 02:37 J -25544685.61 -25544685.39 -25544685.16 0.0266 0.0096
 Jupiter -74651-09-03 09:49 J -25544609.30 -25544609.09 -25544608.87 0.0495 0.0198
 Mars -74651-12-15 23:59 J -25544505.70 -25544505.50 -25544505.29 0.1796 0.0471
 Saturn -74650-06-30 12:42 J -25544309.10 -25544308.97 -25544308.82 0.0263 0.0210
 Uranus -74647-01-04 05:30 J -25543390.41 -25543390.27 -25543390.11 0.0133 0.0106
 Uranus -74646-01-08 19:40 J -25543020.90 -25543020.68 -25543020.43 0.0132 0.0060
 Uranus -74645-01-12 22:18 J -25542651.82 -25542651.57 -25542651.32 0.0132 0.0024
 Uranus -74644-01-16 11:30 J -25542282.27 -25542282.02 -25542281.76 0.0132 0.0031
 Uranus -74643-01-20 11:44 J -25541913.22 -25541913.01 -25541912.77 0.0131 0.0061
 Uranus -74642-01-24 23:59 J -25541543.63 -25541543.50 -25541543.37 0.0131 0.0114
 Jupiter -74639-09-07 17:59 J -25540221.99 -25540221.75 -25540221.50 0.0495 0.0009
 Saturn -74638-11-21 23:16 J -25539781.67 -25539781.53 -25539781.36 0.0287 0.0228
 Saturn -74637-12-05 17:16 J -25539402.02 -25539401.78 -25539401.54 0.0291 0.0080
 Saturn -74636-12-20 21:06 J -25539021.84 -25539021.62 -25539021.38 0.0295 0.0081
 Saturn -74634-01-05 07:11 J -25538641.33 -25538641.20 -25538641.06 0.0298 0.0244
 Mars -74629-06-11 16:47 J -25536656.97 -25536656.80 -25536656.62 0.1753 0.0249

Jupiter -74627-09-12 07:40 J -25535834.39 -25535834.18 -25535833.96 0.0495 0.0159
 Saturn -74624-05-22 05:01 J -25534851.42 -25534851.29 -25534851.13 0.0275 0.0219
 Saturn -74623-06-03 02:52 J -25534474.59 -25534474.38 -25534474.16 0.0271 0.0091
 Saturn -74622-06-14 19:54 J -25534097.91 -25534097.67 -25534097.44 0.0267 0.0042
 Saturn -74621-06-25 01:11 J -25533721.64 -25533721.45 -25533721.25 0.0265 0.0162
 Saturn -74620-07-06 02:08 J -25533345.42 -25533345.41 -25533345.40 0.0262 0.0262
 Jupiter -74615-09-16 22:32 J -25531446.73 -25531446.56 -25531446.40 0.0494 0.0366
 Jupiter -74609-03-05 08:23 J -25529450.24 -25529450.15 -25529450.04 0.0530 0.0472
 Neptune -74608-04-09 20:08 J -25529049.78 -25529049.66 -25529049.52 0.0089 0.0076
 Saturn -74608-11-29 17:16 J -25528815.99 -25528815.78 -25528815.55 0.0289 0.0145
 Neptune -74607-04-11 23:01 J -25528682.70 -25528682.54 -25528682.36 0.0089 0.0065
 Saturn -74607-12-14 12:56 J -25528436.22 -25528435.96 -25528435.70 0.0294 0.0011
 Neptune -74606-04-14 14:08 J -25528315.11 -25528314.91 -25528314.69 0.0089 0.0051
 Saturn -74606-12-29 14:52 J -25528056.08 -25528055.88 -25528055.67 0.0297 0.0172
 Neptune -74605-04-15 19:54 J -25527947.88 -25527947.67 -25527947.44 0.0089 0.0040
 Neptune -74604-04-18 06:28 J -25527580.48 -25527580.23 -25527579.98 0.0089 0.0025
 Uranus -74604-06-28 17:59 J -25527508.80 -25527508.75 -25527508.70 0.0146 0.0143
 Neptune -74603-04-20 16:18 J -25527213.05 -25527212.82 -25527212.56 0.0089 0.0014
 Uranus -74603-07-03 13:54 J -25527139.13 -25527138.92 -25527138.68 0.0147 0.0076
 Neptune -74602-04-22 21:49 J -25526845.84 -25526845.59 -25526845.33 0.0089 0.0003
 Uranus -74602-07-08 16:47 J -25526769.03 -25526768.80 -25526768.56 0.0147 0.0032
 Neptune -74601-04-24 12:42 J -25526478.22 -25526477.97 -25526477.73 0.0089 0.0013
 Uranus -74601-07-12 17:01 J -25526399.03 -25526398.79 -25526398.53 0.0147 0.0040
 Neptune -74600-04-26 14:52 J -25526111.10 -25526110.88 -25526110.63 0.0089 0.0028
 Uranus -74600-07-17 18:56 J -25526028.89 -25526028.71 -25526028.52 0.0148 0.0094
 Neptune -74599-04-29 06:42 J -25525743.43 -25525743.22 -25525742.97 0.0089 0.0039
 Neptune -74598-05-01 10:04 J -25525376.27 -25525376.08 -25525375.87 0.0089 0.0053
 Jupiter -74597-03-10 15:49 J -25525062.05 -25525061.84 -25525061.62 0.0531 0.0189
 Neptune -74597-05-02 23:44 J -25525008.66 -25525008.51 -25525008.32 0.0089 0.0065
 Neptune -74596-05-05 06:42 J -25524641.30 -25524641.22 -25524641.09 0.0089 0.0080

Saturn	-74595-05-17 10:47 J	-25524264.07	-25524264.05	-25524264.02	0.0276	0.0274
Saturn	-74594-05-29 06:42 J	-25523887.42	-25523887.22	-25523887.01	0.0272	0.0151
Saturn	-74593-06-08 17:01 J	-25523511.03	-25523510.79	-25523510.55	0.0268	0.0017
Saturn	-74592-06-20 05:16 J	-25523134.49	-25523134.28	-25523134.07	0.0265	0.0111
Saturn	-74591-07-01 15:49 J	-25522757.97	-25522757.84	-25522757.71	0.0263	0.0221
Pluto	-74585-03-08 18:13 J	-25520680.84	-25520680.74	-25520680.58	0.0079	0.0068
Jupiter	-74585-03-15 09:49 J	-25520674.32	-25520674.09	-25520673.86	0.0532	0.0093
Jupiter	-74580-08-29 07:40 J	-25518681.29	-25518681.18	-25518681.07	0.0496	0.0434
Saturn	-74579-11-22 22:18 J	-25518230.72	-25518230.57	-25518230.41	0.0287	0.0220
Saturn	-74578-12-07 19:25 J	-25517850.92	-25517850.69	-25517850.45	0.0291	0.0070
Saturn	-74577-12-22 00:28 J	-25517470.72	-25517470.48	-25517470.25	0.0295	0.0092
Saturn	-74575-01-06 08:23 J	-25517090.28	-25517090.15	-25517090.02	0.0298	0.0254
Jupiter	-74573-03-20 12:56 J	-25516286.13	-25516285.96	-25516285.77	0.0532	0.0313
Jupiter	-74568-09-02 12:42 J	-25514294.20	-25514293.97	-25514293.75	0.0496	0.0202
Saturn	-74565-05-23 05:44 J	-25513300.41	-25513300.26	-25513300.10	0.0274	0.0207
Saturn	-74564-06-04 04:47 J	-25512923.52	-25512923.30	-25512923.07	0.0271	0.0077
Uranus	-74563-01-04 21:06 J	-25512708.77	-25512708.62	-25512708.46	0.0133	0.0103
Saturn	-74563-06-15 15:35 J	-25512547.09	-25512546.85	-25512546.60	0.0267	0.0058
Uranus	-74562-01-09 10:47 J	-25512339.28	-25512339.05	-25512338.81	0.0132	0.0061
Saturn	-74562-06-26 18:56 J	-25512170.89	-25512170.71	-25512170.53	0.0264	0.0177
Uranus	-74561-01-13 13:54 J	-25511970.17	-25511969.92	-25511969.67	0.0132	0.0009
Jupiter	-74561-03-25 12:28 J	-25511898.00	-25511897.98	-25511897.94	0.0532	0.0526
Uranus	-74560-01-17 02:08 J	-25511600.67	-25511600.41	-25511600.15	0.0132	0.0023
Uranus	-74559-01-21 02:37 J	-25511231.58	-25511231.39	-25511231.18	0.0132	0.0080
Uranus	-74558-01-25 13:40 J	-25510862.06	-25510861.93	-25510861.77	0.0131	0.0109
Jupiter	-74556-09-07 04:47 J	-25509906.53	-25509906.30	-25509906.07	0.0496	0.0019
Mars	-74550-06-15 01:54 J	-25507799.57	-25507799.42	-25507799.26	0.1747	0.1008
Saturn	-74550-11-16 23:01 J	-25507644.58	-25507644.54	-25507644.48	0.0285	0.0278
Saturn	-74549-11-30 09:20 J	-25507265.33	-25507265.11	-25507264.87	0.0290	0.0139
Saturn	-74548-12-15 05:59 J	-25506885.50	-25506885.25	-25506885.00	0.0294	0.0020

Saturn -74547-12-30 11:01 J -25506505.22 -25506505.04 -25506504.83 0.0297 0.0186
 Jupiter -74544-09-11 19:54 J -25505518.90 -25505518.67 -25505518.43 0.0495 0.0154
 Saturn -74536-05-18 06:28 J -25502713.29 -25502713.23 -25502713.14 0.0276 0.0263
 Saturn -74535-05-30 00:13 J -25502336.70 -25502336.49 -25502336.28 0.0272 0.0138
 Saturn -74534-06-10 16:32 J -25501960.04 -25501959.81 -25501959.58 0.0268 0.0004
 Saturn -74533-06-21 06:56 J -25501583.41 -25501583.21 -25501583.00 0.0265 0.0125
 Saturn -74532-07-02 11:30 J -25501207.13 -25501207.02 -25501206.90 0.0263 0.0230
 Jupiter -74532-09-16 05:30 J -25501131.42 -25501131.27 -25501131.12 0.0494 0.0373
 Neptune -74527-10-05 20:23 J -25499285.65 -25499285.65 -25499285.65 0.0088 0.0088
 Jupiter -74526-03-06 02:08 J -25499134.51 -25499134.41 -25499134.31 0.0530 0.0476
 Neptune -74526-10-08 05:16 J -25498918.43 -25498918.28 -25498918.10 0.0088 0.0067
 Neptune -74525-10-09 21:35 J -25498550.77 -25498550.60 -25498550.39 0.0088 0.0063
 Neptune -74524-10-12 11:59 J -25498183.22 -25498183.00 -25498182.77 0.0088 0.0041
 Neptune -74523-10-14 23:44 J -25497815.75 -25497815.51 -25497815.25 0.0088 0.0036
 Neptune -74522-10-17 18:13 J -25497447.98 -25497447.74 -25497447.47 0.0088 0.0014
 Neptune -74521-10-19 02:37 J -25497080.65 -25497080.39 -25497080.12 0.0088 0.0008
 Uranus -74520-06-29 11:01 J -25496827.13 -25496827.04 -25496826.90 0.0146 0.0130
 Neptune -74520-10-21 23:44 J -25496712.77 -25496712.51 -25496712.25 0.0088 0.0014
 Saturn -74520-11-23 22:18 J -25496679.72 -25496679.57 -25496679.40 0.0287 0.0214
 Uranus -74519-07-04 06:56 J -25496457.41 -25496457.21 -25496456.99 0.0147 0.0083
 Neptune -74519-10-24 06:42 J -25496345.47 -25496345.22 -25496344.95 0.0088 0.0019
 Saturn -74519-12-08 18:13 J -25496299.98 -25496299.74 -25496299.49 0.0291 0.0061
 Uranus -74518-07-09 10:32 J -25496087.30 -25496087.06 -25496086.82 0.0147 0.0011
 Neptune -74518-10-27 03:20 J -25495977.58 -25495977.36 -25495977.10 0.0088 0.0041
 Saturn -74518-12-23 19:40 J -25495919.91 -25495919.68 -25495919.43 0.0295 0.0103
 Uranus -74517-07-13 10:32 J -25495717.31 -25495717.06 -25495716.81 0.0147 0.0036
 Neptune -74517-10-28 11:59 J -25495610.20 -25495610.00 -25495609.76 0.0088 0.0047
 Saturn -74516-01-07 00:28 J -25495539.59 -25495539.48 -25495539.35 0.0298 0.0263
 Uranus -74516-07-18 12:56 J -25495347.12 -25495346.96 -25495346.77 0.0148 0.0103
 Neptune -74516-10-31 05:44 J -25495242.40 -25495242.26 -25495242.05 0.0088 0.0068

Neptune -74515-11-02 18:28 J -25494874.85 -25494874.73 -25494874.56 0.0088 0.0074
 Jupiter -74514-03-10 19:54 J -25494746.89 -25494746.67 -25494746.45 0.0530 0.0186
 Saturn -74506-05-25 06:56 J -25491749.37 -25491749.21 -25491749.04 0.0274 0.0195
 Saturn -74505-06-05 00:56 J -25491372.70 -25491372.46 -25491372.22 0.0270 0.0062
 Saturn -74504-06-16 07:40 J -25490996.41 -25490996.18 -25490995.94 0.0267 0.0074
 Saturn -74503-06-27 16:32 J -25490619.97 -25490619.81 -25490619.64 0.0264 0.0189
 Jupiter -74502-03-16 00:13 J -25490358.71 -25490358.49 -25490358.27 0.0531 0.0087
 Jupiter -74497-08-28 10:32 J -25488366.17 -25488366.06 -25488365.94 0.0497 0.0432
 Saturn -74491-11-17 13:11 J -25486094.01 -25486093.95 -25486093.88 0.0285 0.0274
 Jupiter -74490-03-20 20:37 J -25485970.83 -25485970.64 -25485970.43 0.0531 0.0286
 Saturn -74490-12-02 02:08 J -25485714.63 -25485714.41 -25485714.19 0.0290 0.0132
 Saturn -74489-12-16 02:23 J -25485334.64 -25485334.40 -25485334.16 0.0294 0.0029
 Saturn -74488-12-31 10:32 J -25484954.23 -25484954.06 -25484953.87 0.0297 0.0195
 Jupiter -74485-09-02 03:20 J -25483978.56 -25483978.36 -25483978.15 0.0496 0.0203
 Uranus -74479-01-05 12:28 J -25482027.13 -25482026.98 -25482026.79 0.0133 0.0097
 Uranus -74478-01-10 01:40 J -25481657.67 -25481657.43 -25481657.18 0.0132 0.0050
 Jupiter -74478-03-25 15:49 J -25481582.90 -25481582.84 -25481582.79 0.0532 0.0514
 Uranus -74477-01-14 05:44 J -25481288.51 -25481288.26 -25481288.01 0.0132 0.0014
 Saturn -74477-05-18 22:18 J -25481162.66 -25481162.57 -25481162.46 0.0276 0.0252
 Uranus -74476-01-17 17:16 J -25480919.02 -25480918.78 -25480918.52 0.0132 0.0042
 Saturn -74476-05-30 20:52 J -25480785.83 -25480785.63 -25480785.42 0.0272 0.0124
 Uranus -74475-01-21 19:11 J -25480549.91 -25480549.70 -25480549.49 0.0132 0.0072
 Saturn -74475-06-11 16:47 J -25480409.03 -25480408.80 -25480408.56 0.0268 0.0014
 Uranus -74474-01-26 05:44 J -25480180.33 -25480180.26 -25480180.18 0.0131 0.0126
 Saturn -74474-06-23 01:54 J -25480032.62 -25480032.42 -25480032.20 0.0265 0.0137
 Saturn -74473-07-03 02:52 J -25479656.48 -25479656.38 -25479656.27 0.0263 0.0238
 Jupiter -74473-09-06 18:28 J -25479590.98 -25479590.73 -25479590.48 0.0495 0.0023
 Jupiter -74461-09-11 04:04 J -25475203.55 -25475203.33 -25475203.11 0.0495 0.0152
 Saturn -74461-11-24 17:59 J -25475128.92 -25475128.75 -25475128.57 0.0287 0.0206
 Saturn -74460-12-09 10:04 J -25474749.33 -25474749.08 -25474748.82 0.0291 0.0054

Saturn -74459-12-24 09:35 J -25474369.34 -25474369.10 -25474368.86 0.0295 0.0109
 Saturn -74457-01-08 15:35 J -25473988.94 -25473988.85 -25473988.74 0.0298 0.0272
 Jupiter -74449-09-15 21:06 J -25470815.76 -25470815.62 -25470815.46 0.0495 0.0381
 Saturn -74447-05-26 01:40 J -25470198.61 -25470198.43 -25470198.24 0.0274 0.0180
 Saturn -74446-06-06 15:35 J -25469822.09 -25469821.85 -25469821.60 0.0271 0.0044
 Mars -74446-12-13 14:23 J -25469632.06 -25469631.90 -25469631.74 0.1779 0.0928
 Saturn -74445-06-17 03:49 J -25469445.56 -25469445.34 -25469445.11 0.0267 0.0087
 Neptune -74444-04-08 18:56 J -25469149.73 -25469149.71 -25469149.63 0.0089 0.0087
 Saturn -74444-06-28 16:47 J -25469068.95 -25469068.80 -25469068.64 0.0264 0.0198
 Jupiter -74443-03-05 07:11 J -25468819.30 -25468819.20 -25468819.10 0.0529 0.0473
 Neptune -74443-04-11 09:35 J -25468782.27 -25468782.10 -25468781.92 0.0089 0.0065
 Neptune -74442-04-13 16:04 J -25468414.99 -25468414.83 -25468414.64 0.0089 0.0061
 Neptune -74441-04-15 01:25 J -25468047.65 -25468047.44 -25468047.19 0.0089 0.0040
 Neptune -74440-04-17 13:25 J -25467680.15 -25467679.94 -25467679.70 0.0089 0.0035
 Neptune -74439-04-19 18:28 J -25467312.97 -25467312.73 -25467312.46 0.0089 0.0014
 Neptune -74438-04-22 09:49 J -25466945.33 -25466945.09 -25466944.83 0.0089 0.0010
 Neptune -74437-04-23 12:28 J -25466578.23 -25466577.98 -25466577.73 0.0089 0.0012
 Neptune -74436-04-26 04:04 J -25466210.57 -25466210.33 -25466210.07 0.0089 0.0016
 Uranus -74436-06-30 04:18 J -25466145.42 -25466145.32 -25466145.21 0.0146 0.0131
 Neptune -74435-04-28 07:40 J -25465843.39 -25465843.18 -25465842.95 0.0089 0.0038
 Uranus -74435-07-04 22:47 J -25465775.77 -25465775.55 -25465775.30 0.0147 0.0064
 Neptune -74434-04-30 20:23 J -25465475.87 -25465475.65 -25465475.42 0.0089 0.0042
 Uranus -74434-07-10 03:06 J -25465405.61 -25465405.37 -25465405.13 0.0147 0.0019
 Neptune -74433-05-02 03:20 J -25465108.50 -25465108.36 -25465108.17 0.0089 0.0064
 Uranus -74433-07-14 01:40 J -25465035.66 -25465035.43 -25465035.18 0.0147 0.0053
 Neptune -74432-05-04 11:01 J -25464741.18 -25464741.04 -25464740.84 0.0089 0.0068
 Uranus -74432-07-19 05:01 J -25464665.44 -25464665.29 -25464665.12 0.0148 0.0109
 Saturn -74432-11-18 08:23 J -25464543.22 -25464543.15 -25464543.06 0.0285 0.0267
 Jupiter -74431-03-10 08:52 J -25464431.33 -25464431.13 -25464430.92 0.0530 0.0190
 Neptune -74431-05-07 00:28 J -25464373.48 -25464373.48 -25464373.45 0.0089 0.0089

Saturn -74431-12-03 00:42 J -25464163.68 -25464163.47 -25464163.24 0.0290 0.0125
 Saturn -74430-12-18 01:54 J -25463783.66 -25463783.42 -25463783.17 0.0294 0.0038
 Saturn -74428-01-01 08:23 J -25463403.33 -25463403.15 -25463402.97 0.0297 0.0205
 Pluto -74425-09-02 17:01 J -25462062.79 -25462062.79 -25462062.78 0.0065 0.0065
 Mars -74424-06-10 07:40 J -25461782.35 -25461782.18 -25461782.00 0.1769 0.0779
 Pluto -74424-09-04 09:06 J -25461696.33 -25461696.12 -25461695.85 0.0065 0.0032
 Jupiter -74419-03-15 06:56 J -25460043.44 -25460043.21 -25460042.97 0.0531 0.0068
 Saturn -74418-05-20 18:56 J -25459611.81 -25459611.71 -25459611.59 0.0276 0.0240
 Saturn -74417-05-31 21:35 J -25459234.81 -25459234.60 -25459234.38 0.0272 0.0107
 Saturn -74416-06-12 13:25 J -25458858.18 -25458857.94 -25458857.69 0.0268 0.0027
 Saturn -74415-06-23 17:30 J -25458481.97 -25458481.77 -25458481.56 0.0265 0.0148
 Saturn -74414-07-04 23:01 J -25458105.61 -25458105.54 -25458105.45 0.0263 0.0247
 Jupiter -74414-08-29 01:54 J -25458050.53 -25458050.42 -25458050.30 0.0497 0.0424
 Jupiter -74407-03-20 03:35 J -25455655.53 -25455655.35 -25455655.15 0.0532 0.0276
 Jupiter -74402-09-02 17:01 J -25453663.01 -25453662.79 -25453662.57 0.0496 0.0203
 Saturn -74402-11-26 08:37 J -25453578.32 -25453578.14 -25453577.94 0.0287 0.0198
 Saturn -74401-12-10 00:56 J -25453198.71 -25453198.46 -25453198.21 0.0292 0.0046
 Saturn -74400-12-25 03:06 J -25452818.59 -25452818.37 -25452818.14 0.0295 0.0120
 Saturn -74398-01-09 12:56 J -25452438.02 -25452437.96 -25452437.88 0.0298 0.0286
 Uranus -74396-01-01 23:01 J -25451714.56 -25451714.54 -25451714.52 0.0133 0.0132
 Uranus -74395-01-06 05:44 J -25451345.43 -25451345.26 -25451345.08 0.0133 0.0093
 Jupiter -74395-03-25 11:01 J -25451267.08 -25451267.04 -25451266.99 0.0531 0.0519
 Uranus -74394-01-10 17:44 J -25450976.00 -25450975.76 -25450975.51 0.0132 0.0050
 Uranus -74393-01-14 22:04 J -25450606.83 -25450606.58 -25450606.33 0.0132 0.0002
 Uranus -74392-01-18 08:23 J -25450237.39 -25450237.15 -25450236.88 0.0132 0.0036
 Uranus -74391-01-22 10:47 J -25449868.22 -25449868.05 -25449867.87 0.0132 0.0092
 Uranus -74390-01-26 20:08 J -25449498.73 -25449498.66 -25449498.53 0.0131 0.0121
 Jupiter -74390-09-06 22:04 J -25449275.81 -25449275.58 -25449275.35 0.0496 0.0039
 Saturn -74388-05-26 16:18 J -25448648.02 -25448647.82 -25448647.62 0.0274 0.0163
 Saturn -74387-06-07 10:18 J -25448271.31 -25448271.07 -25448270.84 0.0271 0.0028

Saturn -74386-06-19 03:35 J -25447894.56 -25447894.35 -25447894.12 0.0267 0.0102
 Saturn -74385-06-29 12:42 J -25447518.11 -25447517.97 -25447517.81 0.0264 0.0208
 Jupiter -74378-09-11 18:13 J -25444887.96 -25444887.74 -25444887.51 0.0496 0.0145
 Saturn -74373-11-19 09:49 J -25442992.18 -25442992.09 -25442991.98 0.0285 0.0258
 Saturn -74372-12-04 01:11 J -25442612.67 -25442612.45 -25442612.21 0.0290 0.0115
 Saturn -74371-12-18 23:16 J -25442232.78 -25442232.53 -25442232.28 0.0294 0.0048
 Saturn -74369-01-03 02:23 J -25441852.57 -25441852.40 -25441852.22 0.0297 0.0215
 Mars -74367-12-16 03:49 J -25440774.52 -25440774.34 -25440774.17 0.1786 0.0557
 Jupiter -74366-09-16 01:25 J -25440500.58 -25440500.44 -25440500.28 0.0495 0.0383
 Neptune -74362-10-07 08:52 J -25439018.24 -25439018.13 -25439017.95 0.0088 0.0076
 Neptune -74361-10-09 00:13 J -25438650.64 -25438650.49 -25438650.28 0.0088 0.0064
 Jupiter -74360-03-04 18:42 J -25438503.81 -25438503.72 -25438503.63 0.0529 0.0484
 Neptune -74360-10-11 10:18 J -25438283.28 -25438283.07 -25438282.83 0.0088 0.0049
 Saturn -74359-05-21 19:25 J -25438060.81 -25438060.69 -25438060.55 0.0276 0.0225
 Neptune -74359-10-14 05:59 J -25437915.48 -25437915.25 -25437915.01 0.0088 0.0036
 Saturn -74358-06-02 19:11 J -25437683.93 -25437683.70 -25437683.47 0.0272 0.0089
 Neptune -74358-10-16 13:11 J -25437548.19 -25437547.95 -25437547.68 0.0088 0.0023
 Saturn -74357-06-13 05:44 J -25437307.50 -25437307.26 -25437307.01 0.0268 0.0044
 Neptune -74357-10-18 10:32 J -25437180.31 -25437180.06 -25437179.79 0.0088 0.0010
 Saturn -74356-06-24 13:40 J -25436931.10 -25436930.93 -25436930.73 0.0265 0.0162
 Neptune -74356-10-20 17:59 J -25436813.01 -25436812.75 -25436812.49 0.0088 0.0002
 Saturn -74355-07-06 00:56 J -25436554.51 -25436554.46 -25436554.40 0.0263 0.0255
 Neptune -74355-10-23 13:54 J -25436445.18 -25436444.92 -25436444.65 0.0088 0.0018
 Neptune -74354-10-25 23:59 J -25436077.73 -25436077.50 -25436077.24 0.0088 0.0030
 Neptune -74353-10-27 16:18 J -25435710.03 -25435709.82 -25435709.56 0.0088 0.0046
 Uranus -74352-06-30 19:54 J -25435463.80 -25435463.67 -25435463.52 0.0146 0.0118
 Neptune -74352-10-30 06:28 J -25435342.41 -25435342.23 -25435342.01 0.0088 0.0056
 Uranus -74351-07-05 14:08 J -25435094.12 -25435093.91 -25435093.68 0.0147 0.0072
 Neptune -74351-11-01 17:30 J -25434974.89 -25434974.77 -25434974.57 0.0088 0.0072
 Uranus -74350-07-10 19:25 J -25434723.94 -25434723.69 -25434723.45 0.0147 0.0003

Neptune -74350-11-04 12:42 J -25434607.06 -25434606.97 -25434606.85 0.0088 0.0081
 Uranus -74349-07-14 17:44 J -25434354.00 -25434353.76 -25434353.51 0.0147 0.0050
 Jupiter -74348-03-09 17:01 J -25434116.01 -25434115.79 -25434115.57 0.0530 0.0188
 Uranus -74348-07-19 22:18 J -25433983.71 -25433983.57 -25433983.42 0.0148 0.0117
 Mars -74345-06-12 19:11 J -25432924.87 -25432924.70 -25432924.53 0.1761 0.0538
 Saturn -74343-11-27 04:32 J -25432027.49 -25432027.31 -25432027.11 0.0287 0.0188
 Saturn -74342-12-12 00:28 J -25431647.72 -25431647.48 -25431647.23 0.0292 0.0034
 Saturn -74341-12-26 05:16 J -25431267.49 -25431267.28 -25431267.06 0.0295 0.0134
 Saturn -74339-01-10 14:52 J -25430886.88 -25430886.88 -25430886.84 0.0298 0.0298
 Pluto -74336-03-11 18:28 J -25429730.90 -25429730.73 -25429730.50 0.0079 0.0045
 Jupiter -74336-03-14 15:49 J -25429728.06 -25429727.84 -25429727.61 0.0530 0.0064
 Jupiter -74331-08-28 09:20 J -25427735.23 -25427735.11 -25427734.99 0.0497 0.0430
 Saturn -74329-05-27 12:13 J -25427097.18 -25427096.99 -25427096.79 0.0275 0.0148
 Saturn -74328-06-08 11:44 J -25426720.25 -25426720.01 -25426719.78 0.0271 0.0011
 Saturn -74327-06-20 02:23 J -25426343.61 -25426343.40 -25426343.17 0.0267 0.0117
 Saturn -74326-07-01 05:44 J -25425967.40 -25425967.26 -25425967.12 0.0264 0.0216
 Jupiter -74324-03-19 21:49 J -25425339.79 -25425339.59 -25425339.39 0.0531 0.0268
 Jupiter -74319-09-01 18:13 J -25423347.94 -25423347.74 -25423347.53 0.0497 0.0221
 Saturn -74314-11-21 11:30 J -25421441.13 -25421441.02 -25421440.88 0.0285 0.0245
 Saturn -74313-12-04 22:47 J -25421061.79 -25421061.55 -25421061.30 0.0290 0.0100
 Jupiter -74312-03-24 09:49 J -25420952.16 -25420952.09 -25420952.02 0.0531 0.0503
 Saturn -74312-12-19 18:13 J -25420681.99 -25420681.74 -25420681.49 0.0294 0.0062
 Uranus -74311-01-06 20:52 J -25420663.80 -25420663.63 -25420663.42 0.0133 0.0087
 Saturn -74310-01-03 21:49 J -25420301.74 -25420301.59 -25420301.42 0.0297 0.0228
 Uranus -74310-01-11 08:23 J -25420294.41 -25420294.15 -25420293.90 0.0132 0.0040
 Uranus -74309-01-15 13:40 J -25419925.18 -25419924.93 -25419924.68 0.0132 0.0003
 Uranus -74308-01-18 23:16 J -25419555.76 -25419555.53 -25419555.28 0.0132 0.0054
 Uranus -74307-01-23 02:23 J -25419186.57 -25419186.40 -25419186.19 0.0131 0.0085
 Jupiter -74307-09-06 15:20 J -25418960.09 -25418959.86 -25418959.62 0.0496 0.0054
 Saturn -74300-05-22 19:11 J -25416509.84 -25416509.70 -25416509.54 0.0276 0.0212

Saturn -74299-06-03 13:11 J -25416133.19 -25416132.95 -25416132.71 0.0272 0.0071
 Saturn -74298-06-15 02:08 J -25415756.64 -25415756.41 -25415756.17 0.0268 0.0061
 Saturn -74297-06-25 16:32 J -25415379.98 -25415379.81 -25415379.63 0.0265 0.0173
 Jupiter -74295-09-10 21:49 J -25414572.81 -25414572.59 -25414572.36 0.0495 0.0142
 Mars -74288-12-18 22:47 J -25411916.58 -25411916.55 -25411916.51 0.1793 0.1757
 Saturn -74284-11-28 10:32 J -25410476.24 -25410476.06 -25410475.85 0.0287 0.0172
 Jupiter -74283-09-15 17:59 J -25410184.89 -25410184.75 -25410184.61 0.0495 0.0385
 Saturn -74283-12-13 08:08 J -25410096.40 -25410096.16 -25410095.91 0.0292 0.0016
 Saturn -74282-12-28 11:30 J -25409716.22 -25409716.02 -25409715.80 0.0295 0.0150
 Neptune -74280-04-08 04:18 J -25409249.33 -25409249.32 -25409249.26 0.0089 0.0088
 Neptune -74279-04-10 12:28 J -25408882.11 -25408881.98 -25408881.82 0.0089 0.0072
 Neptune -74278-04-12 20:52 J -25408514.79 -25408514.63 -25408514.43 0.0089 0.0063
 Jupiter -74277-03-04 03:06 J -25408188.46 -25408188.37 -25408188.26 0.0529 0.0477
 Neptune -74277-04-14 09:20 J -25408147.30 -25408147.11 -25408146.88 0.0089 0.0047
 Neptune -74276-04-16 13:25 J -25407780.15 -25407779.94 -25407779.69 0.0089 0.0039
 Neptune -74275-04-19 05:44 J -25407412.50 -25407412.26 -25407412.01 0.0089 0.0022
 Neptune -74274-04-21 08:23 J -25407045.39 -25407045.15 -25407044.90 0.0089 0.0013
 Neptune -74273-04-22 23:59 J -25406677.76 -25406677.50 -25406677.24 0.0089 0.0004
 Neptune -74272-04-25 04:18 J -25406310.56 -25406310.32 -25406310.07 0.0089 0.0014
 Neptune -74271-04-27 16:32 J -25405943.05 -25405942.81 -25405942.56 0.0089 0.0029
 Saturn -74271-05-17 07:54 J -25405923.21 -25405923.17 -25405923.11 0.0279 0.0272
 Neptune -74270-04-30 01:11 J -25405575.65 -25405575.45 -25405575.21 0.0089 0.0039
 Saturn -74270-05-29 14:52 J -25405546.07 -25405545.88 -25405545.66 0.0274 0.0132
 Neptune -74269-05-01 08:23 J -25405208.35 -25405208.15 -25405207.94 0.0089 0.0054
 Saturn -74269-06-09 13:11 J -25405169.19 -25405168.95 -25405168.71 0.0271 0.0008
 Neptune -74268-05-03 21:35 J -25404840.75 -25404840.60 -25404840.41 0.0089 0.0064
 Saturn -74268-06-20 22:18 J -25404792.78 -25404792.57 -25404792.35 0.0267 0.0129
 Uranus -74268-07-01 07:40 J -25404782.29 -25404782.18 -25404782.03 0.0146 0.0124
 Neptune -74267-05-06 00:42 J -25404473.56 -25404473.47 -25404473.34 0.0089 0.0080
 Saturn -74267-07-02 03:20 J -25404416.46 -25404416.36 -25404416.23 0.0265 0.0229

Uranus	-74267-07-06 01:11 J	-25404412.68	-25404412.45	-25404412.21	0.0147	0.0055
Mars	-74266-06-15 23:30 J	-25404067.64	-25404067.52	-25404067.40	0.1755	0.1257
Uranus	-74266-07-11 06:42 J	-25404042.46	-25404042.22	-25404041.97	0.0147	0.0010
Jupiter	-74265-03-09 00:56 J	-25403800.66	-25403800.46	-25403800.25	0.0529	0.0189
Uranus	-74265-07-15 03:35 J	-25403672.57	-25403672.35	-25403672.11	0.0147	0.0065
Uranus	-74264-07-20 08:52 J	-25403302.26	-25403302.13	-25403301.97	0.0147	0.0120
Saturn	-74255-11-22 12:56 J	-25399890.10	-25399889.96	-25399889.80	0.0285	0.0231
Saturn	-74254-12-06 23:16 J	-25399510.77	-25399510.53	-25399510.28	0.0290	0.0085
Jupiter	-74253-03-14 02:37 J	-25399412.62	-25399412.39	-25399412.15	0.0530	0.0041
Saturn	-74253-12-20 20:52 J	-25399130.86	-25399130.63	-25399130.38	0.0294	0.0079
Saturn	-74251-01-05 03:49 J	-25398750.47	-25398750.34	-25398750.21	0.0297	0.0247
Jupiter	-74248-08-27 14:23 J	-25397420.01	-25397419.90	-25397419.79	0.0498	0.0438
Jupiter	-74241-03-18 16:32 J	-25395025.01	-25395024.81	-25395024.60	0.0531	0.0241
Saturn	-74241-05-23 16:47 J	-25394958.97	-25394958.80	-25394958.62	0.0276	0.0194
Saturn	-74240-06-04 11:59 J	-25394582.23	-25394582.00	-25394581.76	0.0272	0.0052
Saturn	-74239-06-16 06:56 J	-25394205.43	-25394205.21	-25394204.98	0.0268	0.0078
Saturn	-74238-06-27 20:37 J	-25393828.80	-25393828.64	-25393828.46	0.0265	0.0188
Jupiter	-74236-09-01 10:32 J	-25393032.27	-25393032.06	-25393031.85	0.0497	0.0232
Jupiter	-74229-03-23 22:04 J	-25390636.66	-25390636.58	-25390636.51	0.0531	0.0499
Uranus	-74228-01-03 04:04 J	-25390351.42	-25390351.33	-25390351.22	0.0133	0.0123
Uranus	-74227-01-07 12:28 J	-25389982.16	-25389981.98	-25389981.77	0.0133	0.0084
Uranus	-74226-01-11 22:32 J	-25389612.81	-25389612.56	-25389612.29	0.0132	0.0039
Uranus	-74225-01-16 04:32 J	-25389243.56	-25389243.31	-25389243.06	0.0132	0.0013
Saturn	-74225-11-29 22:04 J	-25388924.78	-25388924.58	-25388924.37	0.0287	0.0154
Uranus	-74224-01-19 13:11 J	-25388874.19	-25388873.95	-25388873.69	0.0132	0.0047
Jupiter	-74224-09-05 16:04 J	-25388645.07	-25388644.83	-25388644.59	0.0496	0.0069
Saturn	-74224-12-14 16:32 J	-25388545.07	-25388544.81	-25388544.56	0.0292	0.0004
Uranus	-74223-01-23 16:47 J	-25388504.93	-25388504.80	-25388504.63	0.0131	0.0104
Saturn	-74223-12-29 16:18 J	-25388165.02	-25388164.82	-25388164.60	0.0296	0.0171
Saturn	-74212-05-18 13:40 J	-25384372.01	-25384371.93	-25384371.83	0.0279	0.0257

Jupiter -74212-09-10 07:11 J -25384257.43 -25384257.20 -25384256.98 0.0496 0.0126
 Saturn -74211-05-30 19:54 J -25383994.88 -25383994.67 -25383994.45 0.0274 0.0115
 Saturn -74210-06-11 11:59 J -25383618.25 -25383618.00 -25383617.75 0.0271 0.0024
 Saturn -74209-06-21 21:06 J -25383241.82 -25383241.62 -25383241.41 0.0267 0.0145
 Saturn -74208-07-03 09:06 J -25382865.20 -25382865.12 -25382865.02 0.0265 0.0243
 Jupiter -74200-09-14 15:06 J -25379870.04 -25379869.87 -25379869.70 0.0495 0.0363
 Neptune -74199-10-03 20:23 J -25379485.67 -25379485.65 -25379485.61 0.0088 0.0088
 Neptune -74198-10-06 13:25 J -25379118.00 -25379117.94 -25379117.84 0.0088 0.0084
 Neptune -74197-10-07 22:47 J -25378750.73 -25378750.55 -25378750.35 0.0088 0.0062
 Neptune -74196-10-10 18:56 J -25378382.88 -25378382.71 -25378382.49 0.0088 0.0059
 Saturn -74196-11-23 19:11 J -25378338.86 -25378338.70 -25378338.53 0.0285 0.0217
 Neptune -74195-10-13 01:54 J -25378015.64 -25378015.42 -25378015.16 0.0088 0.0037
 Saturn -74195-12-08 09:49 J -25377959.33 -25377959.09 -25377958.85 0.0290 0.0065
 Jupiter -74194-03-04 03:49 J -25377873.41 -25377873.34 -25377873.26 0.0528 0.0497
 Neptune -74194-10-15 23:16 J -25377647.77 -25377647.53 -25377647.28 0.0088 0.0033
 Saturn -74194-12-23 11:16 J -25377579.25 -25377579.03 -25377578.80 0.0294 0.0102
 Neptune -74193-10-17 06:56 J -25377280.46 -25377280.21 -25377279.95 0.0088 0.0011
 Saturn -74192-01-06 19:11 J -25377198.80 -25377198.70 -25377198.59 0.0298 0.0268
 Neptune -74192-10-20 01:25 J -25376912.70 -25376912.44 -25376912.16 0.0088 0.0007
 Neptune -74191-10-22 12:13 J -25376545.23 -25376544.99 -25376544.72 0.0088 0.0017
 Neptune -74190-10-25 02:37 J -25376177.64 -25376177.39 -25376177.10 0.0088 0.0021
 Neptune -74189-10-26 18:56 J -25375809.93 -25375809.71 -25375809.48 0.0088 0.0042
 Neptune -74188-10-29 05:30 J -25375442.50 -25375442.27 -25375442.04 0.0088 0.0046
 Neptune -74187-11-01 00:56 J -25375074.60 -25375074.46 -25375074.27 0.0088 0.0068
 Neptune -74186-11-03 08:23 J -25374707.28 -25374707.15 -25374706.97 0.0088 0.0072
 Uranus -74184-07-01 18:13 J -25374100.89 -25374100.74 -25374100.59 0.0146 0.0114
 Uranus -74183-07-06 10:47 J -25373731.27 -25373731.05 -25373730.82 0.0146 0.0066
 Jupiter -74182-03-09 06:28 J -25373485.45 -25373485.23 -25373485.02 0.0529 0.0214
 Saturn -74182-05-25 17:44 J -25373407.94 -25373407.76 -25373407.58 0.0276 0.0178
 Uranus -74182-07-11 17:16 J -25373361.02 -25373360.78 -25373360.53 0.0147 0.0009

Saturn -74181-06-05 18:42 J -25373030.95 -25373030.72 -25373030.49 0.0272 0.0037
 Uranus -74181-07-15 13:40 J -25372991.16 -25372990.93 -25372990.69 0.0147 0.0056
 Saturn -74180-06-17 14:37 J -25372654.11 -25372653.89 -25372653.66 0.0268 0.0094
 Uranus -74180-07-20 20:37 J -25372620.77 -25372620.64 -25372620.52 0.0147 0.0126
 Saturn -74179-06-28 22:47 J -25372277.71 -25372277.55 -25372277.39 0.0265 0.0201
 Pluto -74176-09-05 08:08 J -25371113.41 -25371113.16 -25371112.90 0.0065 0.0008
 Jupiter -74170-03-13 21:06 J -25369097.85 -25369097.62 -25369097.39 0.0530 0.0015
 Saturn -74167-11-18 03:06 J -25367752.40 -25367752.37 -25367752.31 0.0283 0.0279
 Saturn -74166-12-02 11:16 J -25367373.25 -25367373.03 -25367372.79 0.0288 0.0134
 Jupiter -74165-08-27 03:06 J -25367104.48 -25367104.37 -25367104.26 0.0498 0.0443
 Saturn -74165-12-16 02:37 J -25366993.65 -25366993.39 -25366993.13 0.0292 0.0027
 Saturn -74164-12-31 01:40 J -25366613.61 -25366613.43 -25366613.23 0.0296 0.0194
 Mars -74162-12-13 07:40 J -25365901.35 -25365901.18 -25365901.01 0.1768 0.1108
 Jupiter -74158-03-19 05:16 J -25364709.48 -25364709.28 -25364709.07 0.0531 0.0224
 Saturn -74153-05-19 22:47 J -25362820.66 -25362820.55 -25362820.43 0.0278 0.0241
 Jupiter -74153-08-31 03:49 J -25362717.54 -25362717.34 -25362717.13 0.0497 0.0261
 Saturn -74152-05-31 23:01 J -25362443.76 -25362443.54 -25362443.30 0.0274 0.0099
 Saturn -74151-06-12 13:11 J -25362067.18 -25362066.95 -25362066.70 0.0270 0.0042
 Saturn -74150-06-24 04:18 J -25361690.50 -25361690.32 -25361690.13 0.0267 0.0159
 Saturn -74149-07-04 17:30 J -25361313.81 -25361313.77 -25361313.70 0.0265 0.0257
 Jupiter -74146-03-23 23:44 J -25360321.60 -25360321.51 -25360321.41 0.0531 0.0487
 Uranus -74144-01-03 16:18 J -25359669.87 -25359669.82 -25359669.73 0.0133 0.0128
 Uranus -74143-01-08 01:40 J -25359300.61 -25359300.43 -25359300.21 0.0133 0.0078
 Uranus -74142-01-12 11:16 J -25358931.29 -25358931.03 -25358930.77 0.0132 0.0031
 Uranus -74141-01-16 18:28 J -25358561.97 -25358561.73 -25358561.48 0.0132 0.0009
 Jupiter -74141-09-04 22:18 J -25358329.79 -25358329.57 -25358329.34 0.0496 0.0098
 Uranus -74140-01-20 02:37 J -25358192.62 -25358192.39 -25358192.15 0.0132 0.0064
 Mars -74140-06-10 09:49 J -25358051.25 -25358051.09 -25358050.92 0.1779 0.0873
 Uranus -74139-01-24 07:40 J -25357823.33 -25357823.18 -25357822.99 0.0131 0.0096
 Saturn -74137-11-25 10:18 J -25356787.23 -25356787.07 -25356786.89 0.0285 0.0201

Saturn -74136-12-10 04:04 J -25356407.57 -25356407.33 -25356407.09 0.0290 0.0044
 Saturn -74135-12-25 05:44 J -25356027.47 -25356027.26 -25356027.03 0.0294 0.0124
 Saturn -74133-01-09 11:44 J -25355647.06 -25355647.01 -25355646.95 0.0298 0.0289
 Jupiter -74129-09-09 07:11 J -25353942.44 -25353942.20 -25353941.96 0.0496 0.0111
 Saturn -74123-05-27 02:37 J -25351856.58 -25351856.39 -25351856.20 0.0276 0.0160
 Saturn -74122-06-08 05:16 J -25351479.52 -25351479.28 -25351479.05 0.0272 0.0018
 Saturn -74121-06-18 19:25 J -25351102.91 -25351102.69 -25351102.46 0.0268 0.0109
 Saturn -74120-06-30 00:56 J -25350726.59 -25350726.46 -25350726.31 0.0265 0.0214
 Jupiter -74117-09-13 22:04 J -25349554.74 -25349554.58 -25349554.43 0.0495 0.0358
 Neptune -74116-04-07 08:52 J -25349349.17 -25349349.13 -25349349.07 0.0089 0.0086
 Neptune -74115-04-09 16:04 J -25348981.92 -25348981.83 -25348981.71 0.0089 0.0081
 Neptune -74114-04-12 05:59 J -25348614.41 -25348614.25 -25348614.06 0.0089 0.0062
 Neptune -74113-04-13 09:49 J -25348247.28 -25348247.09 -25348246.90 0.0089 0.0057
 Neptune -74112-04-16 01:54 J -25347879.64 -25347879.42 -25347879.18 0.0089 0.0037
 Jupiter -74111-03-03 07:25 J -25347558.23 -25347558.19 -25347558.16 0.0528 0.0521
 Neptune -74111-04-18 04:47 J -25347512.53 -25347512.30 -25347512.06 0.0089 0.0032
 Neptune -74110-04-20 20:08 J -25347144.92 -25347144.66 -25347144.41 0.0089 0.0011
 Neptune -74109-04-22 01:25 J -25346777.68 -25346777.44 -25346777.19 0.0089 0.0007
 Neptune -74108-04-24 12:28 J -25346410.24 -25346409.98 -25346409.72 0.0089 0.0013
 Saturn -74108-11-19 18:13 J -25346200.82 -25346200.74 -25346200.62 0.0284 0.0260
 Neptune -74107-04-26 22:04 J -25346042.81 -25346042.58 -25346042.33 0.0089 0.0018
 Saturn -74107-12-04 01:11 J -25345821.69 -25345821.45 -25345821.21 0.0288 0.0113
 Neptune -74106-04-29 03:49 J -25345675.56 -25345675.34 -25345675.09 0.0089 0.0038
 Saturn -74106-12-18 17:59 J -25345442.00 -25345441.75 -25345441.50 0.0292 0.0049
 Neptune -74105-04-30 18:28 J -25345307.93 -25345307.73 -25345307.50 0.0089 0.0043
 Saturn -74104-01-01 20:52 J -25345061.80 -25345061.63 -25345061.47 0.0296 0.0218
 Neptune -74104-05-02 20:52 J -25344940.78 -25344940.63 -25344940.43 0.0089 0.0064
 Neptune -74103-05-05 13:40 J -25344573.09 -25344572.93 -25344572.76 0.0089 0.0067
 Neptune -74102-05-07 16:04 J -25344205.84 -25344205.83 -25344205.77 0.0089 0.0088
 Uranus -74100-07-02 04:32 J -25343419.44 -25343419.31 -25343419.15 0.0146 0.0118

Jupiter -74099-03-08 01:11 J -25343170.65 -25343170.45 -25343170.24 0.0529 0.0239
 Uranus -74099-07-06 20:52 J -25343049.87 -25343049.63 -25343049.39 0.0146 0.0050
 Uranus -74098-07-12 03:20 J -25342679.60 -25342679.36 -25342679.11 0.0147 0.0004
 Uranus -74097-07-15 22:32 J -25342309.78 -25342309.56 -25342309.33 0.0147 0.0072
 Uranus -74096-07-21 05:30 J -25341939.38 -25341939.27 -25341939.13 0.0147 0.0126
 Saturn -74094-05-22 05:59 J -25341269.38 -25341269.25 -25341269.09 0.0278 0.0221
 Saturn -74093-06-02 03:20 J -25340892.59 -25340892.36 -25340892.12 0.0274 0.0078
 Saturn -74092-06-13 22:32 J -25340515.79 -25340515.56 -25340515.33 0.0270 0.0058
 Saturn -74091-06-25 16:04 J -25340139.00 -25340138.83 -25340138.64 0.0267 0.0174
 Pluto -74088-03-12 09:35 J -25339148.33 -25339148.10 -25339147.83 0.0079 0.0028
 Jupiter -74087-03-13 08:23 J -25338782.38 -25338782.15 -25338781.93 0.0530 0.0016
 Mars -74083-12-16 14:52 J -25337043.06 -25337042.88 -25337042.69 0.1776 0.0740
 Jupiter -74082-08-26 18:13 J -25336789.81 -25336789.74 -25336789.66 0.0498 0.0471
 Saturn -74078-11-28 09:06 J -25335235.30 -25335235.12 -25335234.92 0.0286 0.0181
 Saturn -74077-12-12 02:23 J -25334855.65 -25334855.40 -25334855.15 0.0290 0.0023
 Saturn -74076-12-27 01:40 J -25334475.64 -25334475.43 -25334475.20 0.0294 0.0147
 Jupiter -74075-03-17 21:20 J -25334394.83 -25334394.61 -25334394.39 0.0530 0.0186
 Jupiter -74070-08-31 13:25 J -25332402.12 -25332401.94 -25332401.75 0.0497 0.0286
 Saturn -74064-05-28 16:32 J -25330305.00 -25330304.81 -25330304.60 0.0275 0.0141
 Jupiter -74063-03-22 19:54 J -25330006.78 -25330006.67 -25330006.55 0.0531 0.0454
 Saturn -74063-06-09 14:23 J -25329928.14 -25329927.90 -25329927.65 0.0271 0.0002
 Saturn -74062-06-20 23:44 J -25329551.73 -25329551.51 -25329551.29 0.0268 0.0124
 Mars -74061-06-13 04:47 J -25329193.48 -25329193.30 -25329193.11 0.1771 0.0733
 Saturn -74061-07-01 09:49 J -25329175.20 -25329175.09 -25329174.96 0.0265 0.0229
 Uranus -74060-01-04 03:49 J -25328988.44 -25328988.34 -25328988.18 0.0133 0.0117
 Uranus -74059-01-08 15:20 J -25328619.06 -25328618.86 -25328618.65 0.0133 0.0076
 Uranus -74058-01-12 23:16 J -25328249.79 -25328249.53 -25328249.26 0.0133 0.0029
 Jupiter -74058-09-04 21:06 J -25328014.85 -25328014.62 -25328014.38 0.0497 0.0115
 Uranus -74057-01-17 07:25 J -25327880.43 -25327880.19 -25327879.94 0.0132 0.0022
 Uranus -74056-01-20 14:23 J -25327511.13 -25327510.90 -25327510.65 0.0132 0.0057

Uranus -74055-01-24 20:52 J -25327141.74 -25327141.63 -25327141.50 0.0132 0.0114
 Saturn -74049-11-21 09:35 J -25324649.22 -25324649.10 -25324648.95 0.0284 0.0241
 Saturn -74048-12-05 18:56 J -25324269.94 -25324269.71 -25324269.47 0.0289 0.0092
 Saturn -74047-12-20 15:49 J -25323890.07 -25323889.84 -25323889.60 0.0293 0.0075
 Jupiter -74046-09-09 11:30 J -25323627.24 -25323627.02 -25323626.79 0.0496 0.0098
 Saturn -74045-01-04 21:35 J -25323509.73 -25323509.60 -25323509.46 0.0296 0.0245
 Saturn -74035-05-23 12:56 J -25319718.12 -25319717.96 -25319717.79 0.0277 0.0200
 Saturn -74034-06-04 13:25 J -25319341.17 -25319340.94 -25319340.71 0.0273 0.0059
 Jupiter -74034-09-13 22:04 J -25319239.76 -25319239.58 -25319239.40 0.0495 0.0334
 Neptune -74034-10-05 10:32 J -25319218.10 -25319218.06 -25319217.97 0.0088 0.0086
 Saturn -74033-06-15 11:59 J -25318964.22 -25318964.00 -25318963.78 0.0270 0.0075
 Neptune -74033-10-07 07:25 J -25318850.33 -25318850.19 -25318850.00 0.0088 0.0070
 Saturn -74032-06-27 00:56 J -25318587.62 -25318587.46 -25318587.27 0.0267 0.0188
 Neptune -74032-10-09 14:23 J -25318483.08 -25318482.90 -25318482.69 0.0088 0.0060
 Neptune -74031-10-12 11:16 J -25318115.26 -25318115.03 -25318114.79 0.0088 0.0044
 Neptune -74030-10-14 19:54 J -25317747.90 -25317747.67 -25317747.43 0.0088 0.0033
 Neptune -74029-10-16 13:11 J -25317380.21 -25317379.95 -25317379.67 0.0088 0.0019
 Neptune -74028-10-19 02:23 J -25317012.65 -25317012.40 -25317012.14 0.0088 0.0007
 Neptune -74027-10-21 15:20 J -25316645.13 -25316644.86 -25316644.58 0.0088 0.0006
 Neptune -74026-10-24 08:37 J -25316277.39 -25316277.14 -25316276.89 0.0088 0.0019
 Neptune -74025-10-25 16:47 J -25315910.04 -25315909.80 -25315909.54 0.0088 0.0033
 Neptune -74024-10-28 13:40 J -25315542.15 -25315541.93 -25315541.71 0.0088 0.0046
 Neptune -74023-10-30 20:08 J -25315174.84 -25315174.66 -25315174.44 0.0088 0.0058
 Neptune -74022-11-02 17:16 J -25314806.91 -25314806.78 -25314806.59 0.0088 0.0071
 Neptune -74021-11-04 01:11 J -25314439.52 -25314439.45 -25314439.32 0.0088 0.0082
 Saturn -74019-11-30 06:56 J -25313683.41 -25313683.21 -25313682.99 0.0286 0.0160
 Saturn -74018-12-14 22:04 J -25313303.84 -25313303.58 -25313303.33 0.0291 0.0005
 Saturn -74017-12-28 19:40 J -25312923.88 -25312923.68 -25312923.46 0.0295 0.0170
 Jupiter -74016-03-07 05:16 J -25312855.48 -25312855.28 -25312855.09 0.0529 0.0274
 Uranus -74016-07-02 18:56 J -25312737.86 -25312737.71 -25312737.52 0.0146 0.0107

Uranus	-74015-07-07 11:16 J	-25312368.26	-25312368.03	-25312367.80	0.0146	0.0058
Uranus	-74014-07-12 18:13 J	-25311997.98	-25311997.74	-25311997.49	0.0147	0.0018
Uranus	-74013-07-16 13:11 J	-25311628.17	-25311627.95	-25311627.72	0.0147	0.0065
Uranus	-74012-07-21 21:06 J	-25311257.70	-25311257.62	-25311257.52	0.0147	0.0137
Saturn	-74006-05-18 23:59 J	-25309130.57	-25309130.50	-25309130.42	0.0279	0.0263
Saturn	-74005-05-30 05:16 J	-25308753.50	-25308753.28	-25308753.06	0.0275	0.0119
Jupiter	-74004-03-11 19:25 J	-25308467.92	-25308467.69	-25308467.45	0.0529	0.0061
Saturn	-74004-06-10 21:06 J	-25308376.86	-25308376.62	-25308376.37	0.0271	0.0020
Saturn	-74003-06-22 09:20 J	-25308000.31	-25308000.11	-25307999.90	0.0268	0.0142
Saturn	-74002-07-03 23:59 J	-25307623.59	-25307623.50	-25307623.40	0.0265	0.0242

74TH MILLENNIUM BCE

This is a list of transits of Moon in the 74th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-73999-08-26 03:20 J	-25306474.40	-25306474.36	-25306474.32	0.0498	0.0489		
Jupiter	-73992-03-16 19:25 J	-25304079.90	-25304079.69	-25304079.48	0.0530	0.0147		
Saturn	-73990-11-24 05:30 J	-25303097.43	-25303097.27	-25303097.11	0.0285	0.0221		
Saturn	-73989-12-07 19:25 J	-25302717.92	-25302717.69	-25302717.45	0.0289	0.0068		
Saturn	-73988-12-22 19:11 J	-25302337.93	-25302337.70	-25302337.47	0.0293	0.0100		
Jupiter	-73987-08-30 10:18 J	-25302087.26	-25302087.07	-25302086.88	0.0497	0.0307		
Saturn	-73986-01-07 00:28 J	-25301957.57	-25301957.48	-25301957.37	0.0297	0.0268		
Mars	-73982-06-16 23:16 J	-25300335.62	-25300335.53	-25300335.43	0.1763	0.1532		
Jupiter	-73980-03-21 19:54 J	-25299691.81	-25299691.67	-25299691.53	0.0531	0.0423		

Uranus -73976-01-04 16:18 J -25298306.91 -25298306.82 -25298306.70 0.0133 0.0122
 Saturn -73976-05-25 00:56 J -25298166.63 -25298166.46 -25298166.28 0.0277 0.0183
 Uranus -73975-01-09 04:32 J -25297937.51 -25297937.31 -25297937.09 0.0133 0.0069
 Saturn -73975-06-06 04:47 J -25297789.53 -25297789.30 -25297789.07 0.0273 0.0040
 Jupiter -73975-09-03 22:32 J -25297699.78 -25297699.56 -25297699.34 0.0496 0.0144
 Uranus -73974-01-13 11:44 J -25297568.26 -25297568.01 -25297567.74 0.0133 0.0023
 Saturn -73974-06-18 00:13 J -25297412.72 -25297412.49 -25297412.27 0.0269 0.0093
 Uranus -73973-01-17 21:35 J -25297198.84 -25297198.60 -25297198.34 0.0132 0.0020
 Saturn -73973-06-28 06:42 J -25297036.37 -25297036.22 -25297036.04 0.0266 0.0200
 Uranus -73972-01-21 04:04 J -25296829.54 -25296829.33 -25296829.10 0.0132 0.0074
 Uranus -73971-01-25 11:59 J -25296460.14 -25296460.00 -25296459.85 0.0132 0.0106
 Jupiter -73963-09-08 11:01 J -25293312.28 -25293312.04 -25293311.79 0.0496 0.0075
 Saturn -73961-11-17 18:42 J -25292510.74 -25292510.72 -25292510.69 0.0282 0.0281
 Saturn -73960-12-01 23:44 J -25292131.72 -25292131.51 -25292131.27 0.0287 0.0138
 Saturn -73959-12-16 14:08 J -25291752.16 -25291751.91 -25291751.65 0.0291 0.0024
 Saturn -73958-12-31 14:08 J -25291372.10 -25291371.91 -25291371.72 0.0295 0.0193
 Neptune -73951-04-09 02:37 J -25289081.43 -25289081.39 -25289081.29 0.0089 0.0085
 Jupiter -73951-09-12 18:28 J -25288924.90 -25288924.73 -25288924.54 0.0496 0.0319
 Neptune -73950-04-11 05:59 J -25288714.41 -25288714.25 -25288714.07 0.0089 0.0066
 Neptune -73949-04-12 22:04 J -25288346.74 -25288346.58 -25288346.37 0.0089 0.0060
 Neptune -73948-04-15 01:40 J -25287979.65 -25287979.43 -25287979.21 0.0089 0.0042
 Neptune -73947-04-17 15:35 J -25287612.07 -25287611.85 -25287611.60 0.0089 0.0036
 Saturn -73947-05-20 14:08 J -25287579.01 -25287578.91 -25287578.79 0.0279 0.0247
 Neptune -73946-04-19 21:49 J -25287244.82 -25287244.59 -25287244.34 0.0089 0.0019
 Saturn -73946-06-01 12:56 J -25287202.19 -25287201.96 -25287201.72 0.0274 0.0099
 Neptune -73945-04-21 08:23 J -25286877.41 -25286877.15 -25286876.89 0.0089 0.0011
 Saturn -73945-06-12 05:30 J -25286825.51 -25286825.27 -25286825.03 0.0271 0.0039
 Neptune -73944-04-23 19:54 J -25286509.91 -25286509.67 -25286509.42 0.0089 0.0007
 Saturn -73944-06-23 22:32 J -25286448.74 -25286448.56 -25286448.37 0.0267 0.0158
 Neptune -73943-04-26 01:11 J -25286142.70 -25286142.45 -25286142.19 0.0089 0.0014

Saturn -73943-07-05 11:16 J -25286072.08 -25286072.03 -25286071.96 0.0265 0.0255
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 Saturn -73678-07-06 11:01 J -25189280.08 -25189280.04 -25189279.98 0.0264 0.0258
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 Uranus -73677-07-18 19:54 J -25188901.85 -25188901.67 -25188901.45 0.0147 0.0089
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 Saturn -73665-12-09 18:42 J -25184374.98 -25184374.72 -25184374.47 0.0289 0.0052
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 Jupiter -73660-03-13 22:47 J -25182819.77 -25182819.55 -25182819.32 0.0529 0.0061
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 Mars -73651-06-09 00:56 J -25179445.57 -25179445.46 -25179445.35 0.1805 0.1490 *
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 Saturn -73531-07-03 17:01 J -25135590.90 -25135590.79 -25135590.68 0.0265 0.0237
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 Saturn -73519-11-21 23:01 J -25131066.65 -25131066.54 -25131066.41 0.0282 0.0248

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 Uranus -73511-07-10 13:40 J -25128279.16 -25128278.93 -25128278.69 0.0146 0.0032
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 Uranus -73472-01-07 13:40 J -25114218.07 -25114217.93 -25114217.75 0.0133 0.0104
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Pluto -73431-09-10 02:52 J -25098997.65 -25098997.38 -25098997.11 0.0065 0.0002
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 Jupiter -73399-03-18 06:28 J -25087485.41 -25087485.23 -25087485.05 0.0529 0.0341
 Saturn -73399-12-22 15:06 J -25087206.08 -25087205.87 -25087205.64 0.0292 0.0120
 Saturn -73397-01-06 19:40 J -25086825.68 -25086825.68 -25086825.68 0.0296 0.0296
 Jupiter -73394-09-01 01:40 J -25085492.63 -25085492.43 -25085492.22 0.0499 0.0194
 Mars -73389-12-10 03:06 J -25083565.39 -25083565.37 -25083565.33 0.1732 0.1707
 Uranus -73388-01-07 23:44 J -25083536.69 -25083536.51 -25083536.30 0.0134 0.0089
 Uranus -73387-01-12 17:44 J -25083167.00 -25083166.76 -25083166.52 0.0133 0.0048
 Saturn -73387-05-27 00:28 J -25083032.68 -25083032.48 -25083032.28 0.0279 0.0155
 Uranus -73386-01-16 20:08 J -25082797.92 -25082797.66 -25082797.40 0.0133 0.0007
 Saturn -73386-06-08 04:47 J -25082655.53 -25082655.30 -25082655.07 0.0274 0.0017
 Uranus -73385-01-21 11:30 J -25082428.24 -25082428.02 -25082427.78 0.0133 0.0057
 Saturn -73385-06-19 04:47 J -25082278.51 -25082278.30 -25082278.07 0.0270 0.0104

Uranus -73384-01-24 12:13 J -25082059.15 -25082058.99 -25082058.80 0.0132 0.0096
 Saturn -73384-06-30 17:16 J -25081901.93 -25081901.78 -25081901.63 0.0266 0.0211
 Jupiter -73382-09-05 18:56 J -25081104.95 -25081104.71 -25081104.46 0.0498 0.0058
 Neptune -73377-10-03 22:04 J -25079249.67 -25079249.58 -25079249.42 0.0089 0.0079
 Neptune -73376-10-06 17:01 J -25078881.92 -25078881.79 -25078881.64 0.0089 0.0074
 Neptune -73375-10-09 00:42 J -25078514.67 -25078514.47 -25078514.25 0.0089 0.0056
 Neptune -73374-10-11 21:20 J -25078146.80 -25078146.61 -25078146.37 0.0089 0.0051
 Neptune -73373-10-13 04:04 J -25077779.55 -25077779.33 -25077779.07 0.0089 0.0033
 Neptune -73372-10-16 00:56 J -25077411.71 -25077411.46 -25077411.20 0.0088 0.0025
 Neptune -73371-10-18 09:35 J -25077044.35 -25077044.10 -25077043.84 0.0088 0.0008
 Saturn -73371-12-01 16:04 J -25077000.05 -25076999.83 -25076999.59 0.0285 0.0132
 Jupiter -73370-09-10 02:37 J -25076717.59 -25076717.39 -25076717.19 0.0497 0.0252
 Neptune -73370-10-21 02:52 J -25076676.65 -25076676.38 -25076676.10 0.0088 0.0001
 Saturn -73370-12-16 00:56 J -25076620.72 -25076620.46 -25076620.20 0.0289 0.0039
 Neptune -73369-10-22 15:06 J -25076309.11 -25076308.87 -25076308.60 0.0088 0.0016
 Saturn -73369-12-29 19:54 J -25076240.83 -25076240.67 -25076240.49 0.0294 0.0217
 Neptune -73368-10-25 04:04 J -25075941.58 -25075941.33 -25075941.05 0.0088 0.0024
 Mars -73367-06-09 06:56 J -25075714.31 -25075714.21 -25075714.11 0.1815 0.1499
 Neptune -73367-10-27 21:35 J -25075573.81 -25075573.60 -25075573.35 0.0088 0.0040
 Neptune -73366-10-30 06:42 J -25075206.42 -25075206.22 -25075205.97 0.0088 0.0049
 Neptune -73365-11-01 03:49 J -25074838.52 -25074838.34 -25074838.15 0.0088 0.0063
 Neptune -73364-11-03 10:04 J -25074471.20 -25074471.08 -25074470.90 0.0088 0.0073
 Neptune -73363-11-06 07:25 J -25074103.24 -25074103.19 -25074103.09 0.0088 0.0085
 Saturn -73358-05-21 22:32 J -25072445.70 -25072445.56 -25072445.41 0.0281 0.0221
 Jupiter -73358-09-14 18:42 J -25072329.85 -25072329.72 -25072329.58 0.0497 0.0412
 Saturn -73357-06-02 05:59 J -25072068.49 -25072068.25 -25072068.01 0.0277 0.0076
 Saturn -73356-06-14 00:13 J -25071691.73 -25071691.49 -25071691.25 0.0272 0.0052
 Saturn -73355-06-25 17:01 J -25071314.97 -25071314.79 -25071314.61 0.0269 0.0166
 Jupiter -73352-03-02 16:04 J -25070333.96 -25070333.83 -25070333.70 0.0526 0.0440
 Uranus -73345-07-01 23:01 J -25067655.60 -25067655.54 -25067655.44 0.0145 0.0137

Uranus -73344-07-06 22:32 J -25067285.78 -25067285.56 -25067285.34 0.0145 0.0078
 Pluto -73343-03-16 22:32 J -25067032.78 -25067032.56 -25067032.33 0.0079 0.0033
 Uranus -73343-07-11 17:44 J -25066916.00 -25066915.76 -25066915.52 0.0146 0.0021
 Uranus -73342-07-16 20:52 J -25066545.86 -25066545.63 -25066545.38 0.0146 0.0055
 Saturn -73342-11-25 14:23 J -25066414.06 -25066413.90 -25066413.72 0.0282 0.0200
 Uranus -73341-07-20 16:32 J -25066175.98 -25066175.81 -25066175.64 0.0147 0.0105
 Saturn -73341-12-09 01:11 J -25066034.69 -25066034.45 -25066034.21 0.0287 0.0037
 Jupiter -73340-03-07 16:47 J -25065946.00 -25065945.80 -25065945.60 0.0527 0.0231
 Saturn -73340-12-23 20:37 J -25065654.85 -25065654.64 -25065654.41 0.0292 0.0140
 Jupiter -73328-03-12 13:25 J -25061558.17 -25061557.94 -25061557.70 0.0528 0.0046
 Saturn -73328-05-27 23:59 J -25061481.69 -25061481.50 -25061481.29 0.0279 0.0140
 Saturn -73327-06-09 07:54 J -25061104.40 -25061104.17 -25061103.93 0.0274 0.0004
 Saturn -73326-06-21 03:35 J -25060727.57 -25060727.35 -25060727.12 0.0270 0.0115
 Saturn -73325-07-01 11:30 J -25060351.15 -25060351.02 -25060350.87 0.0266 0.0221
 Jupiter -73323-08-26 22:04 J -25059564.69 -25059564.58 -25059564.46 0.0500 0.0430
 Jupiter -73316-03-17 09:06 J -25057170.29 -25057170.12 -25057169.94 0.0529 0.0326
 Saturn -73313-11-18 18:13 J -25055827.82 -25055827.74 -25055827.65 0.0280 0.0263
 Saturn -73312-12-02 16:47 J -25055449.04 -25055448.80 -25055448.56 0.0285 0.0109
 Jupiter -73311-08-31 14:09 J -25055177.13 -25055176.91 -25055176.68 0.0499 0.0189
 Saturn -73311-12-17 03:35 J -25055069.59 -25055069.35 -25055069.10 0.0290 0.0060
 Mars -73310-12-14 05:45 J -25054707.44 -25054707.26 -25054707.07 0.1739 0.0843
 Saturn -73309-01-01 02:37 J -25054689.52 -25054689.39 -25054689.24 0.0294 0.0236
 Uranus -73304-01-08 11:16 J -25052855.20 -25052855.03 -25052854.85 0.0134 0.0098
 Uranus -73303-01-13 05:16 J -25052485.53 -25052485.28 -25052485.03 0.0133 0.0037
 Uranus -73302-01-17 07:40 J -25052116.44 -25052116.18 -25052115.92 0.0133 0.0008
 Uranus -73301-01-21 23:30 J -25051746.74 -25051746.52 -25051746.28 0.0133 0.0056
 Uranus -73300-01-25 00:13 J -25051377.62 -25051377.49 -25051377.34 0.0132 0.0110
 Saturn -73299-05-22 21:35 J -25050894.76 -25050894.60 -25050894.43 0.0281 0.0204
 Jupiter -73299-09-04 16:47 J -25050790.03 -25050789.80 -25050789.57 0.0498 0.0039
 Saturn -73298-06-04 01:11 J -25050517.69 -25050517.45 -25050517.21 0.0277 0.0061

Saturn -73297-06-14 23:59 J -25050140.73 -25050140.50 -25050140.27 0.0272 0.0066
 Saturn -73296-06-26 21:21 J -25049763.78 -25049763.61 -25049763.43 0.0269 0.0177
 Neptune -73294-04-08 18:42 J -25049112.81 -25049112.72 -25049112.58 0.0089 0.0078
 Neptune -73293-04-10 01:25 J -25048745.56 -25048745.44 -25048745.28 0.0089 0.0074
 Neptune -73292-04-12 16:18 J -25048377.99 -25048377.82 -25048377.61 0.0089 0.0055
 Neptune -73291-04-14 19:54 J -25048010.86 -25048010.67 -25048010.44 0.0089 0.0051
 Neptune -73290-04-17 12:28 J -25047643.20 -25047642.98 -25047642.73 0.0089 0.0032
 Neptune -73289-04-18 15:35 J -25047276.07 -25047275.85 -25047275.60 0.0089 0.0028
 Neptune -73288-04-21 06:42 J -25046908.48 -25046908.22 -25046907.96 0.0089 0.0009
 Mars -73288-06-11 23:59 J -25046856.68 -25046856.50 -25046856.31 0.1807 0.0638
 Neptune -73287-04-23 12:42 J -25046541.21 -25046540.97 -25046540.72 0.0089 0.0005
 Jupiter -73287-09-09 12:28 J -25046402.19 -25046401.98 -25046401.77 0.0497 0.0228
 Neptune -73286-04-25 22:33 J -25046173.81 -25046173.56 -25046173.29 0.0089 0.0014
 Neptune -73285-04-27 09:06 J -25045806.35 -25045806.12 -25045805.87 0.0089 0.0019
 Neptune -73284-04-29 14:09 J -25045439.12 -25045438.91 -25045438.65 0.0089 0.0038
 Neptune -73283-05-02 05:59 J -25045071.47 -25045071.25 -25045071.03 0.0089 0.0041
 Saturn -73283-11-27 02:09 J -25044862.59 -25044862.41 -25044862.21 0.0283 0.0180
 Neptune -73282-05-04 08:09 J -25044704.33 -25044704.16 -25044703.96 0.0089 0.0060
 Saturn -73282-12-11 11:30 J -25044483.27 -25044483.02 -25044482.77 0.0287 0.0017
 Neptune -73281-05-05 23:59 J -25044336.65 -25044336.50 -25044336.29 0.0089 0.0064
 Saturn -73281-12-25 03:21 J -25044103.58 -25044103.36 -25044103.14 0.0292 0.0158
 Neptune -73280-05-08 04:04 J -25043969.40 -25043969.33 -25043969.22 0.0089 0.0082
 Neptune -73279-05-10 17:30 J -25043601.80 -25043601.77 -25043601.68 0.0089 0.0087
 Jupiter -73275-09-13 19:11 J -25042014.84 -25042014.70 -25042014.55 0.0497 0.0398
 Saturn -73270-05-17 14:09 J -25040307.97 -25040307.91 -25040307.85 0.0283 0.0272
 Jupiter -73269-03-01 21:35 J -25040018.68 -25040018.60 -25040018.50 0.0526 0.0475
 Saturn -73269-05-29 06:28 J -25039930.43 -25039930.23 -25039930.02 0.0278 0.0124
 Saturn -73268-06-10 10:47 J -25039553.29 -25039553.05 -25039552.81 0.0274 0.0012
 Saturn -73267-06-22 00:57 J -25039176.67 -25039176.46 -25039176.24 0.0270 0.0126
 Saturn -73266-07-03 12:28 J -25038800.08 -25038799.98 -25038799.86 0.0266 0.0234

Uranus	-73261-07-02 13:54 J	-25036973.97	-25036973.92	-25036973.85	0.0145	0.0139
Uranus	-73260-07-07 11:59 J	-25036604.21	-25036604.00	-25036603.77	0.0145	0.0075
Uranus	-73259-07-12 08:23 J	-25036234.39	-25036234.15	-25036233.91	0.0146	0.0007
Uranus	-73258-07-17 10:18 J	-25035864.30	-25035864.07	-25035863.81	0.0146	0.0047
Jupiter	-73257-03-06 17:59 J	-25035630.96	-25035630.75	-25035630.54	0.0527	0.0254
Uranus	-73257-07-21 05:59 J	-25035494.35	-25035494.25	-25035494.10	0.0147	0.0126
Saturn	-73254-11-20 23:01 J	-25034276.65	-25034276.54	-25034276.40	0.0281	0.0243
Saturn	-73253-12-04 01:11 J	-25033897.69	-25033897.45	-25033897.22	0.0285	0.0087
Saturn	-73252-12-18 16:04 J	-25033518.06	-25033517.83	-25033517.60	0.0290	0.0082
Saturn	-73250-01-02 17:01 J	-25033137.89	-25033137.79	-25033137.67	0.0294	0.0259
Jupiter	-73245-03-11 17:16 J	-25031243.00	-25031242.78	-25031242.56	0.0528	0.0035
Saturn	-73240-05-23 20:52 J	-25029343.80	-25029343.63	-25029343.43	0.0281	0.0189
Jupiter	-73240-08-26 02:37 J	-25029249.48	-25029249.39	-25029249.27	0.0499	0.0451
Saturn	-73239-06-05 03:49 J	-25028966.58	-25028966.34	-25028966.11	0.0276	0.0047
Saturn	-73238-06-17 07:11 J	-25028589.42	-25028589.20	-25028588.98	0.0272	0.0079
Saturn	-73237-06-28 01:25 J	-25028212.60	-25028212.44	-25028212.26	0.0269	0.0190
Jupiter	-73233-03-16 22:33 J	-25026854.74	-25026854.56	-25026854.37	0.0529	0.0311
Mars	-73231-12-17 08:52 J	-25025849.28	-25025849.13	-25025848.98	0.1747	0.1096
Jupiter	-73228-08-30 08:52 J	-25024862.33	-25024862.13	-25024861.91	0.0499	0.0216
Saturn	-73224-11-28 14:37 J	-25023311.10	-25023310.89	-25023310.68	0.0283	0.0158
Saturn	-73223-12-12 20:37 J	-25022931.90	-25022931.64	-25022931.38	0.0288	0.0007
Saturn	-73222-12-27 11:45 J	-25022552.21	-25022552.01	-25022551.80	0.0292	0.0182
Jupiter	-73221-03-21 10:18 J	-25022467.13	-25022467.07	-25022467.01	0.0529	0.0511
Uranus	-73220-01-08 22:04 J	-25022173.78	-25022173.58	-25022173.37	0.0133	0.0082
Uranus	-73219-01-13 15:35 J	-25021804.09	-25021803.85	-25021803.60	0.0133	0.0042
Uranus	-73218-01-17 17:45 J	-25021435.01	-25021434.76	-25021434.50	0.0133	0.0015
Uranus	-73217-01-22 09:21 J	-25021065.32	-25021065.11	-25021064.87	0.0132	0.0064
Uranus	-73216-01-25 10:04 J	-25020696.23	-25020696.08	-25020695.92	0.0132	0.0105
Jupiter	-73216-09-04 05:30 J	-25020474.50	-25020474.27	-25020474.03	0.0498	0.0027
Neptune	-73213-10-03 10:33 J	-25019349.07	-25019349.06	-25019348.98	0.0089	0.0088

Neptune -73212-10-05 17:45 J -25018981.90 -25018981.76 -25018981.58 0.0089 0.0071
 Saturn -73211-05-19 00:28 J -25018756.57 -25018756.48 -25018756.37 0.0283 0.0256
 Neptune -73211-10-08 14:37 J -25018614.05 -25018613.89 -25018613.69 0.0089 0.0065
 Saturn -73210-05-31 13:25 J -25018379.15 -25018378.94 -25018378.71 0.0278 0.0107
 Neptune -73210-10-10 21:21 J -25018246.81 -25018246.61 -25018246.36 0.0089 0.0047
 Saturn -73209-06-11 12:13 J -25018002.24 -25018001.99 -25018001.74 0.0274 0.0025
 Mars -73209-06-15 00:28 J -25017998.61 -25017998.48 -25017998.34 0.1799 0.1289
 Neptune -73209-10-12 17:16 J -25017879.01 -25017878.78 -25017878.53 0.0089 0.0041
 Saturn -73208-06-23 04:18 J -25017625.51 -25017625.32 -25017625.11 0.0270 0.0142
 Neptune -73208-10-15 02:52 J -25017511.62 -25017511.38 -25017511.13 0.0089 0.0023
 Saturn -73207-07-04 21:49 J -25017248.66 -25017248.59 -25017248.51 0.0266 0.0250
 Neptune -73207-10-17 19:11 J -25017143.97 -25017143.70 -25017143.43 0.0089 0.0018
 Neptune -73206-10-20 09:35 J -25016776.36 -25016776.10 -25016775.85 0.0088 0.0002
 Neptune -73205-10-21 21:06 J -25016408.89 -25016408.62 -25016408.35 0.0088 0.0006
 Jupiter -73204-09-08 11:16 J -25016087.25 -25016087.03 -25016086.82 0.0497 0.0210
 Neptune -73204-10-24 15:06 J -25016041.11 -25016040.87 -25016040.61 0.0088 0.0026
 Neptune -73203-10-26 23:01 J -25015673.78 -25015673.54 -25015673.27 0.0088 0.0030
 Neptune -73202-10-29 20:09 J -25015305.86 -25015305.66 -25015305.43 0.0088 0.0050
 Neptune -73201-10-31 02:52 J -25014938.57 -25014938.38 -25014938.15 0.0088 0.0053
 Neptune -73200-11-02 23:30 J -25014570.65 -25014570.52 -25014570.34 0.0088 0.0073
 Neptune -73199-11-05 08:23 J -25014203.26 -25014203.15 -25014203.00 0.0088 0.0076
 Saturn -73195-11-22 14:09 J -25012725.06 -25012724.91 -25012724.77 0.0281 0.0224
 Saturn -73194-12-06 20:23 J -25012345.89 -25012345.65 -25012345.42 0.0286 0.0064
 Saturn -73193-12-20 12:13 J -25011966.21 -25011965.99 -25011965.75 0.0290 0.0109
 Jupiter -73192-09-13 05:59 J -25011699.40 -25011699.25 -25011699.11 0.0497 0.0382
 Saturn -73191-01-04 11:45 J -25011586.07 -25011586.01 -25011585.93 0.0294 0.0282
 Jupiter -73186-03-01 21:49 J -25009703.66 -25009703.59 -25009703.51 0.0526 0.0500
 Pluto -73183-09-10 19:54 J -25008414.88 -25008414.67 -25008414.43 0.0065 0.0032
 Pluto -73182-09-12 11:59 J -25008048.10 -25008048.00 -25008047.84 0.0065 0.0057
 Saturn -73181-05-25 04:04 J -25007792.51 -25007792.33 -25007792.14 0.0280 0.0173

Saturn -73180-06-06 14:37 J -25007415.11 -25007414.89 -25007414.65 0.0276 0.0033
 Saturn -73179-06-18 16:04 J -25007038.05 -25007037.83 -25007037.60 0.0272 0.0095
 Saturn -73178-06-30 04:04 J -25006661.49 -25006661.33 -25006661.16 0.0268 0.0205
 Uranus -73177-07-03 00:13 J -25006292.58 -25006292.49 -25006292.37 0.0145 0.0130
 Uranus -73176-07-07 21:21 J -25005922.83 -25005922.61 -25005922.38 0.0145 0.0071
 Uranus -73175-07-12 18:42 J -25005552.95 -25005552.72 -25005552.47 0.0146 0.0013
 Jupiter -73174-03-06 20:52 J -25005315.82 -25005315.63 -25005315.44 0.0527 0.0274
 Uranus -73174-07-17 20:09 J -25005182.89 -25005182.66 -25005182.42 0.0146 0.0064
 Uranus -73173-07-21 17:16 J -25004812.92 -25004812.78 -25004812.62 0.0147 0.0115
 Saturn -73165-11-30 02:09 J -25001759.63 -25001759.41 -25001759.17 0.0283 0.0137
 Saturn -73164-12-14 08:37 J -25001380.39 -25001380.14 -25001379.88 0.0288 0.0033
 Saturn -73163-12-29 03:06 J -25001000.53 -25001000.37 -25001000.19 0.0293 0.0208
 Jupiter -73162-03-11 21:21 J -25000927.85 -25000927.61 -25000927.37 0.0528 0.0014
 Jupiter -73157-08-25 00:28 J -24998934.55 -24998934.48 -24998934.41 0.0500 0.0474
 Saturn -73152-05-20 12:42 J -24997205.10 -24997204.97 -24997204.85 0.0282 0.0238
 Saturn -73151-06-01 19:11 J -24996827.93 -24996827.70 -24996827.46 0.0278 0.0091
 Jupiter -73150-03-16 11:01 J -24996540.23 -24996540.04 -24996539.84 0.0528 0.0273
 Saturn -73150-06-13 17:45 J -24996451.00 -24996450.76 -24996450.52 0.0273 0.0041
 Saturn -73149-06-24 15:21 J -24996074.04 -24996073.86 -24996073.67 0.0270 0.0158
 Saturn -73148-07-06 08:09 J -24995697.16 -24995697.16 -24995697.12 0.0266 0.0266
 Jupiter -73145-08-29 20:23 J -24994546.85 -24994546.65 -24994546.43 0.0499 0.0227
 Jupiter -73138-03-21 14:37 J -24992151.98 -24992151.89 -24992151.79 0.0529 0.0477
 Uranus -73137-01-06 04:04 J -24991861.39 -24991861.33 -24991861.26 0.0134 0.0129
 Uranus -73136-01-09 08:09 J -24991492.32 -24991492.16 -24991491.96 0.0133 0.0093
 Saturn -73136-11-24 11:01 J -24991173.20 -24991173.04 -24991172.88 0.0282 0.0205
 Uranus -73135-01-14 01:25 J -24991122.68 -24991122.44 -24991122.17 0.0133 0.0030
 Saturn -73135-12-08 18:28 J -24990793.97 -24990793.73 -24990793.48 0.0286 0.0039
 Uranus -73134-01-18 04:18 J -24990753.58 -24990753.32 -24990753.07 0.0133 0.0014
 Saturn -73134-12-23 08:52 J -24990414.35 -24990414.13 -24990413.90 0.0291 0.0134
 Uranus -73133-01-22 19:25 J -24990383.90 -24990383.69 -24990383.44 0.0132 0.0064

Jupiter -73133-09-03 01:11 J -24990159.69 -24990159.45 -24990159.21 0.0498 0.0004
 Uranus -73132-01-25 20:37 J -24990014.75 -24990014.64 -24990014.52 0.0132 0.0116
 Neptune -73130-04-08 02:23 J -24989212.45 -24989212.40 -24989212.30 0.0089 0.0085
 Neptune -73129-04-09 17:30 J -24988844.90 -24988844.77 -24988844.59 0.0089 0.0070
 Neptune -73128-04-11 20:23 J -24988477.80 -24988477.65 -24988477.44 0.0089 0.0063
 Neptune -73127-04-14 13:11 J -24988110.15 -24988109.95 -24988109.72 0.0089 0.0047
 Neptune -73126-04-16 16:33 J -24987743.01 -24987742.81 -24987742.57 0.0089 0.0041
 Neptune -73125-04-18 06:57 J -24987375.45 -24987375.21 -24987374.95 0.0089 0.0025
 Neptune -73124-04-20 14:23 J -24987008.14 -24987007.90 -24987007.66 0.0089 0.0018
 Neptune -73123-04-23 00:13 J -24986640.75 -24986640.49 -24986640.23 0.0089 0.0002
 Neptune -73122-04-25 11:59 J -24986273.24 -24986273.00 -24986272.75 0.0089 0.0006
 Saturn -73122-05-27 18:28 J -24986240.91 -24986240.73 -24986240.53 0.0280 0.0157
 Neptune -73121-04-26 16:47 J -24985906.04 -24985905.80 -24985905.54 0.0089 0.0021
 Saturn -73121-06-08 04:18 J -24985863.56 -24985863.32 -24985863.08 0.0275 0.0016
 Jupiter -73121-09-07 16:33 J -24985772.02 -24985771.81 -24985771.59 0.0497 0.0174
 Neptune -73120-04-29 08:23 J -24985538.38 -24985538.15 -24985537.91 0.0089 0.0027
 Saturn -73120-06-19 23:30 J -24985486.75 -24985486.52 -24985486.29 0.0271 0.0109
 Neptune -73119-05-01 10:33 J -24985171.26 -24985171.06 -24985170.82 0.0089 0.0043
 Saturn -73119-07-01 10:04 J -24985110.21 -24985110.08 -24985109.93 0.0268 0.0220
 Neptune -73118-05-04 02:23 J -24984803.59 -24984803.40 -24984803.17 0.0089 0.0049
 Neptune -73117-05-05 05:59 J -24984436.39 -24984436.25 -24984436.06 0.0089 0.0066
 Neptune -73116-05-07 18:42 J -24984068.85 -24984068.72 -24984068.55 0.0089 0.0072
 Neptune -73115-05-10 02:52 J -24983701.39 -24983701.38 -24983701.33 0.0089 0.0088
 Jupiter -73109-09-12 00:28 J -24981384.65 -24981384.48 -24981384.30 0.0497 0.0348
 Saturn -73107-11-18 21:49 J -24980586.65 -24980586.59 -24980586.53 0.0279 0.0272
 Saturn -73106-12-02 18:28 J -24980207.96 -24980207.73 -24980207.49 0.0284 0.0115
 Mars -73105-12-10 23:01 J -24979833.63 -24979833.54 -24979833.44 0.1723 0.1456
 Saturn -73105-12-16 05:30 J -24979828.51 -24979828.27 -24979828.03 0.0289 0.0057
 Saturn -73104-12-31 03:49 J -24979448.48 -24979448.34 -24979448.19 0.0293 0.0233
 Pluto -73094-03-19 21:35 J -24976082.69 -24976082.60 -24976082.51 0.0079 0.0073

Saturn -73093-05-21 23:01 J -24975653.69 -24975653.54 -24975653.38 0.0282 0.0218
 Uranus -73093-07-03 09:35 J -24975611.17 -24975611.10 -24975611.02 0.0145 0.0137
 Saturn -73092-06-03 04:18 J -24975276.55 -24975276.32 -24975276.08 0.0277 0.0073
 Uranus -73092-07-08 04:47 J -24975241.51 -24975241.30 -24975241.06 0.0145 0.0070
 Jupiter -73091-03-05 19:54 J -24975000.86 -24975000.67 -24975000.48 0.0526 0.0307
 Saturn -73091-06-15 07:25 J -24974899.42 -24974899.19 -24974898.96 0.0273 0.0057
 Uranus -73091-07-13 03:49 J -24974871.59 -24974871.34 -24974871.10 0.0146 0.0004
 Saturn -73090-06-27 05:30 J -24974522.45 -24974522.27 -24974522.09 0.0269 0.0174
 Uranus -73090-07-18 03:35 J -24974501.60 -24974501.35 -24974501.11 0.0146 0.0052
 Uranus -73089-07-22 01:11 J -24974131.53 -24974131.45 -24974131.32 0.0146 0.0132
 Mars -73083-06-10 03:35 J -24971982.48 -24971982.35 -24971982.23 0.1824 0.1340
 Jupiter -73079-03-10 09:21 J -24970613.34 -24970613.11 -24970612.88 0.0528 0.0024
 Saturn -73077-11-26 09:21 J -24969621.29 -24969621.11 -24969620.92 0.0282 0.0185
 Saturn -73076-12-10 14:37 J -24969242.15 -24969241.89 -24969241.64 0.0287 0.0018
 Saturn -73075-12-25 02:52 J -24968862.59 -24968862.38 -24968862.16 0.0291 0.0160
 Jupiter -73074-08-25 10:04 J -24968619.11 -24968619.08 -24968619.04 0.0500 0.0493
 Jupiter -73067-03-15 16:18 J -24966225.02 -24966224.82 -24966224.61 0.0529 0.0241
 Saturn -73063-05-29 11:30 J -24964689.22 -24964689.02 -24964688.81 0.0279 0.0135
 Saturn -73062-06-10 14:37 J -24964312.14 -24964311.89 -24964311.64 0.0275 0.0002
 Jupiter -73062-08-29 12:13 J -24964232.19 -24964231.99 -24964231.79 0.0499 0.0255
 Saturn -73061-06-21 06:28 J -24963935.44 -24963935.23 -24963935.00 0.0271 0.0123
 Saturn -73060-07-02 22:04 J -24963558.67 -24963558.58 -24963558.46 0.0268 0.0238
 Jupiter -73055-03-20 09:35 J -24961837.22 -24961837.10 -24961836.97 0.0529 0.0446
 Uranus -73052-01-09 17:16 J -24960810.97 -24960810.78 -24960810.56 0.0134 0.0078
 Uranus -73051-01-14 10:04 J -24960441.33 -24960441.08 -24960440.83 0.0133 0.0037
 Uranus -73050-01-18 12:57 J -24960072.21 -24960071.96 -24960071.70 0.0133 0.0021
 Jupiter -73050-09-03 06:13 J -24959844.47 -24959844.24 -24959844.01 0.0498 0.0029
 Uranus -73049-01-23 03:49 J -24959702.55 -24959702.34 -24959702.10 0.0132 0.0069
 Uranus -73048-01-26 05:16 J -24959333.41 -24959333.28 -24959333.14 0.0132 0.0112
 Neptune -73048-10-05 08:52 J -24959081.26 -24959081.13 -24959080.94 0.0089 0.0071

Saturn -73048-11-20 12:13 J -24959035.08 -24959034.99 -24959034.87 0.0280 0.0253
 Neptune -73047-10-07 16:33 J -24958713.96 -24958713.81 -24958713.62 0.0089 0.0067
 Saturn -73047-12-04 14:37 J -24958656.11 -24958655.89 -24958655.65 0.0284 0.0096
 Neptune -73046-10-10 11:30 J -24958346.22 -24958346.02 -24958345.77 0.0089 0.0049
 Saturn -73046-12-19 05:45 J -24958276.49 -24958276.26 -24958276.03 0.0289 0.0080
 Neptune -73045-10-11 22:18 J -24957978.78 -24957978.57 -24957978.34 0.0089 0.0044
 Saturn -73044-01-02 05:16 J -24957896.39 -24957896.28 -24957896.16 0.0293 0.0259
 Neptune -73044-10-14 12:57 J -24957611.21 -24957610.96 -24957610.69 0.0089 0.0026
 Neptune -73043-10-17 04:04 J -24957243.58 -24957243.33 -24957243.08 0.0089 0.0020
 Neptune -73042-10-19 14:09 J -24956876.17 -24956875.91 -24956875.63 0.0089 0.0003
 Neptune -73041-10-21 09:35 J -24956508.36 -24956508.10 -24956507.84 0.0089 0.0004
 Neptune -73040-10-23 16:47 J -24956141.05 -24956140.80 -24956140.53 0.0088 0.0021
 Neptune -73039-10-26 14:09 J -24955773.15 -24955772.91 -24955772.65 0.0088 0.0027
 Jupiter -73038-09-07 13:40 J -24955457.17 -24955456.93 -24955456.70 0.0498 0.0144
 Neptune -73038-10-28 21:35 J -24955405.83 -24955405.60 -24955405.38 0.0088 0.0043
 Neptune -73037-10-30 17:16 J -24955037.98 -24955037.78 -24955037.54 0.0088 0.0052
 Neptune -73036-11-02 03:06 J -24954670.52 -24954670.37 -24954670.18 0.0088 0.0067
 Neptune -73035-11-04 19:25 J -24954302.81 -24954302.69 -24954302.52 0.0088 0.0075
 Saturn -73034-05-24 09:49 J -24954102.26 -24954102.09 -24954101.91 0.0281 0.0196
 Neptune -73034-11-07 09:49 J -24953935.11 -24953935.09 -24953935.07 0.0088 0.0088
 Saturn -73033-06-04 19:11 J -24953724.93 -24953724.70 -24953724.47 0.0277 0.0053
 Saturn -73032-06-16 23:59 J -24953347.73 -24953347.50 -24953347.27 0.0273 0.0073
 Saturn -73031-06-28 16:33 J -24952970.98 -24952970.81 -24952970.63 0.0269 0.0189
 Jupiter -73026-09-12 02:52 J -24951069.54 -24951069.38 -24951069.20 0.0497 0.0332
 Mars -73026-12-14 07:25 J -24950976.36 -24950976.19 -24950976.02 0.1730 0.0772
 Saturn -73018-11-29 04:33 J -24948069.51 -24948069.31 -24948069.09 0.0283 0.0164
 Saturn -73017-12-12 08:09 J -24947690.42 -24947690.16 -24947689.90 0.0288 0.0007
 Saturn -73016-12-26 22:18 J -24947310.75 -24947310.57 -24947310.37 0.0292 0.0187
 Uranus -73009-07-03 15:35 J -24944929.96 -24944929.85 -24944929.74 0.0145 0.0128
 Jupiter -73008-03-04 09:35 J -24944686.27 -24944686.10 -24944685.92 0.0527 0.0344

Uranus	-73008-07-08 09:21 J	-24944560.32	-24944560.11	-24944559.88	0.0145	0.0072
Uranus	-73007-07-13 09:35 J	-24944190.34	-24944190.10	-24944189.86	0.0146	0.0009
Uranus	-73006-07-18 07:54 J	-24943820.39	-24943820.17	-24943819.93	0.0146	0.0065
Saturn	-73005-05-18 13:54 J	-24943514.99	-24943514.92	-24943514.83	0.0283	0.0264
Uranus	-73005-07-22 07:54 J	-24943450.30	-24943450.17	-24943450.02	0.0146	0.0118
Saturn	-73004-05-31 01:40 J	-24943137.65	-24943137.43	-24943137.20	0.0278	0.0115
Mars	-73004-06-12 12:42 J	-24943125.14	-24943124.97	-24943124.81	0.1817	0.0570
Saturn	-73003-06-11 23:45 J	-24942760.75	-24942760.51	-24942760.26	0.0274	0.0019
Saturn	-73002-06-23 19:11 J	-24942383.90	-24942383.70	-24942383.49	0.0270	0.0139
Saturn	-73001-07-04 13:25 J	-24942007.01	-24942006.94	-24942006.86	0.0267	0.0252

73RD MILLENNIUM BCE

This is a list of transits of Moon in the 73rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-72996-03-09 16:18 J	-24940298.05	-24940297.82	-24940297.59	0.0528	0.0046		
Saturn	-72989-11-22 06:57 J	-24937483.33	-24937483.21	-24937483.06	0.0280	0.0234		
Saturn	-72988-12-06 13:11 J	-24937104.18	-24937103.95	-24937103.71	0.0285	0.0072		
Saturn	-72987-12-21 04:18 J	-24936724.55	-24936724.32	-24936724.09	0.0290	0.0103		
Saturn	-72985-01-05 01:25 J	-24936344.50	-24936344.44	-24936344.35	0.0294	0.0281		
Jupiter	-72984-03-14 06:28 J	-24935910.45	-24935910.23	-24935910.01	0.0528	0.0207		
Jupiter	-72979-08-28 19:11 J	-24933916.88	-24933916.70	-24933916.50	0.0500	0.0273		
Saturn	-72975-05-26 00:42 J	-24932550.65	-24932550.47	-24932550.29	0.0281	0.0176		
Saturn	-72974-06-07 11:45 J	-24932173.24	-24932173.01	-24932172.77	0.0276	0.0034		

Saturn -72973-06-18 11:45 J -24931796.23 -24931796.01 -24931795.77 0.0272 0.0092
 Jupiter -72972-03-19 08:09 J -24931522.30 -24931522.16 -24931522.02 0.0529 0.0409
 Saturn -72972-06-29 23:01 J -24931419.70 -24931419.54 -24931419.38 0.0268 0.0203
 Uranus -72969-01-06 18:42 J -24930498.79 -24930498.72 -24930498.63 0.0134 0.0128
 Uranus -72968-01-10 00:57 J -24930129.63 -24930129.46 -24930129.26 0.0134 0.0090
 Uranus -72967-01-14 17:01 J -24929760.05 -24929759.79 -24929759.53 0.0133 0.0026
 Jupiter -72967-09-02 03:21 J -24929529.61 -24929529.36 -24929529.12 0.0499 0.0053
 Uranus -72966-01-18 21:06 J -24929390.87 -24929390.62 -24929390.36 0.0133 0.0017
 Neptune -72966-04-07 19:54 J -24929311.69 -24929311.67 -24929311.63 0.0089 0.0088
 Uranus -72965-01-23 11:59 J -24929021.22 -24929021.00 -24929020.77 0.0133 0.0069
 Neptune -72965-04-08 23:01 J -24928944.69 -24928944.54 -24928944.38 0.0089 0.0069
 Uranus -72964-01-26 13:54 J -24928652.00 -24928651.92 -24928651.81 0.0132 0.0122
 Neptune -72964-04-11 15:06 J -24928577.01 -24928576.87 -24928576.68 0.0089 0.0067
 Neptune -72963-04-13 19:11 J -24928209.89 -24928209.70 -24928209.48 0.0089 0.0048
 Neptune -72962-04-16 09:21 J -24927842.33 -24927842.11 -24927841.88 0.0089 0.0044
 Neptune -72961-04-17 16:47 J -24927475.02 -24927474.80 -24927474.55 0.0089 0.0026
 Neptune -72960-04-20 01:40 J -24927107.67 -24927107.43 -24927107.16 0.0089 0.0022
 Neptune -72959-04-22 14:09 J -24926740.15 -24926739.91 -24926739.66 0.0089 0.0003
 Saturn -72959-11-30 17:01 J -24926518.02 -24926517.79 -24926517.57 0.0283 0.0140
 Neptune -72958-04-24 18:42 J -24926372.98 -24926372.72 -24926372.47 0.0089 0.0001
 Saturn -72958-12-14 23:30 J -24926138.77 -24926138.52 -24926138.27 0.0288 0.0030
 Neptune -72957-04-26 10:33 J -24926005.30 -24926005.06 -24926004.81 0.0089 0.0019
 Saturn -72957-12-28 18:28 J -24925758.89 -24925758.73 -24925758.55 0.0293 0.0209
 Neptune -72956-04-28 12:57 J -24925638.19 -24925637.96 -24925637.70 0.0089 0.0023
 Neptune -72955-05-01 04:33 J -24925270.52 -24925270.31 -24925270.06 0.0089 0.0042
 Jupiter -72955-09-06 17:01 J -24925142.01 -24925141.79 -24925141.57 0.0498 0.0119
 Neptune -72954-05-03 09:06 J -24924903.32 -24924903.12 -24924902.90 0.0089 0.0045
 Neptune -72953-05-04 21:21 J -24924535.77 -24924535.61 -24924535.40 0.0089 0.0063
 Neptune -72952-05-07 06:28 J -24924168.38 -24924168.23 -24924168.05 0.0089 0.0066
 Neptune -72951-05-09 13:25 J -24923801.00 -24923800.94 -24923800.84 0.0089 0.0084

Neptune -72950-05-12 02:23 J -24923433.40 -24923433.40 -24923433.33 0.0089 0.0088
 Mars -72947-12-17 04:47 J -24922118.47 -24922118.30 -24922118.13 0.1737 0.1015
 Saturn -72946-05-21 04:04 J -24921963.45 -24921963.33 -24921963.21 0.0282 0.0243
 Saturn -72945-06-01 10:33 J -24921586.29 -24921586.06 -24921585.82 0.0278 0.0095
 Saturn -72944-06-13 11:01 J -24921209.28 -24921209.04 -24921208.81 0.0273 0.0038
 Saturn -72943-06-25 10:04 J -24920832.27 -24920832.08 -24920831.88 0.0270 0.0155
 Jupiter -72943-09-11 06:13 J -24920754.43 -24920754.24 -24920754.05 0.0497 0.0306
 Saturn -72942-07-07 00:57 J -24920455.47 -24920455.46 -24920455.43 0.0266 0.0266
 Pluto -72935-09-12 00:57 J -24917831.57 -24917831.46 -24917831.33 0.0065 0.0058
 Pluto -72934-09-13 13:25 J -24917465.15 -24917464.94 -24917464.69 0.0065 0.0028
 Saturn -72930-11-25 01:25 J -24915931.59 -24915931.44 -24915931.27 0.0281 0.0212
 Saturn -72929-12-08 07:11 J -24915552.45 -24915552.20 -24915551.95 0.0286 0.0050
 Saturn -72928-12-22 19:54 J -24915172.90 -24915172.67 -24915172.43 0.0290 0.0125
 Jupiter -72925-03-03 15:35 J -24914371.01 -24914370.85 -24914370.68 0.0526 0.0364
 Mars -72925-06-14 23:30 J -24914267.66 -24914267.52 -24914267.38 0.1809 0.1224
 Uranus -72925-07-04 00:42 J -24914248.52 -24914248.47 -24914248.37 0.0145 0.0138
 Uranus -72924-07-08 17:45 J -24913878.99 -24913878.76 -24913878.53 0.0145 0.0067
 Uranus -72923-07-13 18:57 J -24913508.96 -24913508.71 -24913508.47 0.0146 0.0002
 Uranus -72922-07-18 15:35 J -24913139.09 -24913138.85 -24913138.61 0.0146 0.0055
 Uranus -72921-07-22 16:33 J -24912768.90 -24912768.81 -24912768.72 0.0146 0.0135
 Saturn -72916-05-27 17:30 J -24910998.96 -24910998.77 -24910998.57 0.0280 0.0156
 Saturn -72915-06-09 01:25 J -24910621.68 -24910621.44 -24910621.20 0.0276 0.0013
 Saturn -72914-06-20 18:42 J -24910244.95 -24910244.72 -24910244.49 0.0271 0.0107
 Jupiter -72913-03-08 06:42 J -24909983.45 -24909983.22 -24909982.98 0.0527 0.0078
 Saturn -72913-07-01 06:42 J -24909868.35 -24909868.22 -24909868.08 0.0268 0.0218
 Jupiter -72901-03-13 08:09 J -24905595.37 -24905595.16 -24905594.95 0.0528 0.0170
 Saturn -72901-11-18 05:45 J -24905345.30 -24905345.26 -24905345.20 0.0279 0.0273
 Saturn -72900-12-02 04:04 J -24904966.56 -24904966.33 -24904966.10 0.0284 0.0118
 Saturn -72899-12-16 15:35 J -24904587.09 -24904586.85 -24904586.61 0.0289 0.0052
 Saturn -72898-12-31 13:40 J -24904207.07 -24904206.93 -24904206.77 0.0293 0.0232

Jupiter -72896-08-27 18:42 J -24903601.92 -24903601.72 -24903601.52 0.0500 0.0284
 Jupiter -72889-03-18 05:30 J -24901207.43 -24901207.27 -24901207.09 0.0529 0.0370
 Saturn -72887-05-22 11:16 J -24900412.17 -24900412.03 -24900411.87 0.0282 0.0224
 Saturn -72886-06-03 18:57 J -24900034.93 -24900034.71 -24900034.47 0.0277 0.0077
 Saturn -72885-06-14 23:30 J -24899657.74 -24899657.52 -24899657.29 0.0273 0.0055
 Neptune -72885-10-02 04:04 J -24899548.41 -24899548.33 -24899548.24 0.0089 0.0084
 Uranus -72884-01-10 08:37 J -24899448.34 -24899448.14 -24899447.92 0.0134 0.0075
 Saturn -72884-06-26 20:23 J -24899280.83 -24899280.65 -24899280.45 0.0269 0.0170
 Jupiter -72884-09-01 08:23 J -24899214.38 -24899214.15 -24899213.93 0.0499 0.0073
 Neptune -72884-10-04 11:45 J -24899181.12 -24899181.01 -24899180.89 0.0089 0.0078
 Uranus -72883-01-14 23:30 J -24899078.77 -24899078.52 -24899078.25 0.0133 0.0035
 Neptune -72883-10-07 05:01 J -24898813.46 -24898813.29 -24898813.07 0.0089 0.0063
 Uranus -72882-01-19 04:47 J -24898709.55 -24898709.30 -24898709.05 0.0133 0.0025
 Neptune -72882-10-09 16:47 J -24898445.97 -24898445.80 -24898445.58 0.0089 0.0057
 Uranus -72881-01-23 18:13 J -24898339.95 -24898339.74 -24898339.50 0.0133 0.0072
 Neptune -72881-10-11 06:28 J -24898078.45 -24898078.23 -24898077.97 0.0089 0.0040
 Uranus -72880-01-26 21:06 J -24897970.71 -24897970.62 -24897970.48 0.0132 0.0119
 Neptune -72880-10-13 23:16 J -24897710.75 -24897710.53 -24897710.28 0.0089 0.0034
 Neptune -72879-10-16 08:52 J -24897343.38 -24897343.13 -24897342.85 0.0089 0.0017
 Neptune -72878-10-19 04:47 J -24896975.55 -24896975.30 -24896975.03 0.0089 0.0012
 Neptune -72877-10-20 11:45 J -24896608.27 -24896608.01 -24896607.74 0.0089 0.0007
 Neptune -72876-10-23 08:52 J -24896240.39 -24896240.13 -24896239.86 0.0089 0.0011
 Neptune -72875-10-25 16:18 J -24895873.06 -24895872.82 -24895872.58 0.0089 0.0030
 Neptune -72874-10-28 11:16 J -24895505.28 -24895505.03 -24895504.78 0.0088 0.0034
 Neptune -72873-10-29 21:21 J -24895137.79 -24895137.61 -24895137.38 0.0088 0.0054
 Jupiter -72872-09-05 22:33 J -24894826.80 -24894826.56 -24894826.32 0.0498 0.0097
 Neptune -72872-11-01 12:42 J -24894770.16 -24894769.97 -24894769.74 0.0088 0.0056
 Neptune -72871-11-04 04:18 J -24894402.43 -24894402.32 -24894402.16 0.0088 0.0076
 Saturn -72871-11-26 11:59 J -24894380.17 -24894380.00 -24894379.80 0.0282 0.0192
 Neptune -72870-11-06 15:35 J -24894034.97 -24894034.85 -24894034.72 0.0088 0.0078

Saturn -72870-12-10 14:52 J -24894001.14 -24894000.88 -24894000.62 0.0286 0.0027
 Saturn -72869-12-24 02:52 J -24893621.59 -24893621.38 -24893621.15 0.0291 0.0149
 Jupiter -72860-09-10 04:18 J -24890439.50 -24890439.32 -24890439.13 0.0498 0.0294
 Saturn -72857-05-29 04:33 J -24889447.52 -24889447.31 -24889447.10 0.0280 0.0137
 Saturn -72856-06-10 06:13 J -24889070.49 -24889070.24 -24889069.99 0.0275 0.0004
 Saturn -72855-06-21 23:01 J -24888693.75 -24888693.54 -24888693.33 0.0271 0.0123
 Saturn -72854-07-03 16:33 J -24888316.92 -24888316.81 -24888316.70 0.0267 0.0235
 Pluto -72846-03-20 15:06 J -24885500.12 -24885499.87 -24885499.60 0.0079 0.0014
 Jupiter -72842-03-03 07:25 J -24884056.34 -24884056.19 -24884056.03 0.0525 0.0395
 Saturn -72842-11-20 11:59 J -24883794.09 -24883794.00 -24883793.90 0.0280 0.0258
 Uranus -72841-07-04 12:13 J -24883567.11 -24883566.99 -24883566.86 0.0145 0.0123
 Saturn -72841-12-03 15:06 J -24883415.09 -24883414.87 -24883414.64 0.0284 0.0099
 Uranus -72840-07-09 03:49 J -24883197.55 -24883197.34 -24883197.10 0.0145 0.0068
 Saturn -72840-12-18 04:47 J -24883035.53 -24883035.30 -24883035.06 0.0289 0.0076
 Uranus -72839-07-14 06:28 J -24882827.47 -24882827.23 -24882826.99 0.0146 0.0003
 Saturn -72838-01-02 02:09 J -24882655.53 -24882655.41 -24882655.28 0.0294 0.0252
 Uranus -72838-07-19 02:09 J -24882457.63 -24882457.41 -24882457.18 0.0146 0.0071
 Uranus -72837-07-23 04:18 J -24882087.44 -24882087.32 -24882087.19 0.0146 0.0125
 Jupiter -72830-03-08 12:28 J -24879668.20 -24879667.98 -24879667.76 0.0527 0.0104
 Saturn -72828-05-23 17:59 J -24878860.91 -24878860.75 -24878860.58 0.0281 0.0205
 Saturn -72827-06-05 05:59 J -24878483.47 -24878483.25 -24878483.02 0.0277 0.0061
 Saturn -72826-06-17 09:35 J -24878106.33 -24878106.10 -24878105.87 0.0272 0.0070
 Saturn -72825-06-27 23:30 J -24877729.69 -24877729.52 -24877729.33 0.0269 0.0185
 Mars -72821-12-11 16:47 J -24876101.94 -24876101.80 -24876101.66 0.1715 0.1222
 Jupiter -72818-03-13 09:35 J -24875280.33 -24875280.10 -24875279.87 0.0528 0.0143
 Jupiter -72813-08-27 02:37 J -24873286.57 -24873286.39 -24873286.21 0.0500 0.0291
 Saturn -72812-11-27 12:57 J -24872829.17 -24872828.96 -24872828.75 0.0282 0.0173
 Saturn -72811-12-11 15:49 J -24872450.10 -24872449.84 -24872449.59 0.0287 0.0007
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 Jupiter -72806-03-18 06:57 J -24870892.37 -24870892.21 -24870892.04 0.0528 0.0351

Neptune -72802-04-07 01:25 J -24869411.49 -24869411.44 -24869411.33 0.0089 0.0084
 Uranus -72801-01-07 07:40 J -24869136.24 -24869136.18 -24869136.06 0.0134 0.0127
 Neptune -72801-04-08 18:13 J -24869043.85 -24869043.74 -24869043.60 0.0089 0.0077
 Jupiter -72801-08-31 13:54 J -24868899.16 -24868898.92 -24868898.68 0.0500 0.0090
 Uranus -72800-01-10 17:01 J -24868766.96 -24868766.79 -24868766.58 0.0134 0.0087
 Neptune -72800-04-10 22:33 J -24868676.73 -24868676.56 -24868676.38 0.0089 0.0062
 Uranus -72799-01-15 06:57 J -24868397.47 -24868397.21 -24868396.94 0.0133 0.0022
 Neptune -72799-04-13 11:16 J -24868309.22 -24868309.03 -24868308.81 0.0089 0.0055
 Saturn -72799-05-18 19:54 J -24868273.73 -24868273.67 -24868273.60 0.0284 0.0271
 Mars -72799-06-10 02:52 J -24868251.49 -24868251.38 -24868251.27 0.1835 0.1525
 Uranus -72798-01-19 13:40 J -24868028.17 -24868027.93 -24868027.68 0.0133 0.0021
 Neptune -72798-04-15 19:54 J -24867941.89 -24867941.67 -24867941.45 0.0089 0.0040
 Saturn -72798-05-31 06:42 J -24867896.44 -24867896.22 -24867895.99 0.0279 0.0121
 Uranus -72797-01-24 02:52 J -24867658.59 -24867658.38 -24867658.15 0.0133 0.0075
 Neptune -72797-04-17 04:18 J -24867574.56 -24867574.32 -24867574.07 0.0089 0.0033
 Saturn -72797-06-11 06:42 J -24867519.46 -24867519.22 -24867518.97 0.0275 0.0016
 Uranus -72796-01-27 07:11 J -24867289.25 -24867289.20 -24867289.11 0.0132 0.0126
 Neptune -72796-04-19 17:45 J -24867207.00 -24867206.76 -24867206.52 0.0089 0.0019
 Saturn -72796-06-23 04:47 J -24867142.50 -24867142.30 -24867142.10 0.0271 0.0138
 Neptune -72795-04-21 21:49 J -24866839.84 -24866839.59 -24866839.33 0.0089 0.0012
 Saturn -72795-07-04 22:47 J -24866765.62 -24866765.55 -24866765.45 0.0267 0.0249
 Neptune -72794-04-24 14:09 J -24866472.16 -24866471.91 -24866471.66 0.0089 0.0004
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 Neptune -72792-04-28 08:37 J -24865737.38 -24865737.14 -24865736.89 0.0089 0.0026
 Neptune -72791-04-30 13:25 J -24865370.17 -24865369.94 -24865369.71 0.0089 0.0032
 Neptune -72790-05-03 00:28 J -24865002.68 -24865002.48 -24865002.23 0.0089 0.0047
 Neptune -72789-05-04 10:18 J -24864635.26 -24864635.07 -24864634.87 0.0089 0.0053
 Jupiter -72789-09-04 22:33 J -24864511.78 -24864511.56 -24864511.33 0.0499 0.0081
 Neptune -72788-05-06 16:33 J -24864267.95 -24864267.81 -24864267.62 0.0089 0.0068
 Neptune -72787-05-09 06:57 J -24863900.33 -24863900.21 -24863900.07 0.0089 0.0075

Saturn	-72783-11-21 17:45 J	-24862242.86	-24862242.76	-24862242.63	0.0280	0.0242
Saturn	-72782-12-05 21:49 J	-24861863.83	-24861863.59	-24861863.35	0.0285	0.0079
Saturn	-72781-12-19 09:06 J	-24861484.36	-24861484.12	-24861483.87	0.0289	0.0095
Saturn	-72779-01-03 03:35 J	-24861104.44	-24861104.35	-24861104.24	0.0294	0.0271
Jupiter	-72777-09-09 18:57 J	-24860123.90	-24860123.71	-24860123.51	0.0498	0.0291
Saturn	-72769-05-25 00:28 J	-24857309.65	-24857309.48	-24857309.31	0.0281	0.0190
Saturn	-72768-06-06 12:57 J	-24856932.19	-24856931.96	-24856931.73	0.0276	0.0047
Saturn	-72767-06-18 10:33 J	-24856555.29	-24856555.06	-24856554.82	0.0272	0.0081
Saturn	-72766-06-29 21:49 J	-24856178.75	-24856178.59	-24856178.41	0.0268	0.0196
Jupiter	-72759-03-02 19:11 J	-24853740.84	-24853740.70	-24853740.55	0.0526	0.0406
Uranus	-72757-07-05 01:11 J	-24852885.53	-24852885.45	-24852885.33	0.0145	0.0132
Uranus	-72756-07-09 16:33 J	-24852516.04	-24852515.81	-24852515.57	0.0145	0.0058
Uranus	-72755-07-14 19:40 J	-24852145.93	-24852145.68	-24852145.44	0.0146	0.0006
Uranus	-72754-07-19 14:09 J	-24851776.13	-24851775.91	-24851775.67	0.0146	0.0065
Uranus	-72753-07-23 16:47 J	-24851405.82	-24851405.80	-24851405.75	0.0146	0.0145
Saturn	-72753-11-28 08:52 J	-24851278.33	-24851278.13	-24851277.91	0.0282	0.0157
Saturn	-72752-12-12 17:01 J	-24850899.04	-24850898.79	-24850898.55	0.0287	0.0013
Saturn	-72751-12-27 12:13 J	-24850519.16	-24850518.99	-24850518.80	0.0291	0.0189
Jupiter	-72747-03-07 17:01 J	-24849353.03	-24849352.79	-24849352.55	0.0526	0.0109
Mars	-72742-12-15 05:45 J	-24847244.44	-24847244.26	-24847244.08	0.1722	0.0505
Saturn	-72740-05-19 19:40 J	-24846722.78	-24846722.68	-24846722.56	0.0284	0.0253
Saturn	-72739-06-01 04:47 J	-24846345.52	-24846345.30	-24846345.07	0.0279	0.0105
Saturn	-72738-06-13 10:04 J	-24845968.31	-24845968.08	-24845967.85	0.0275	0.0028
Saturn	-72737-06-24 09:49 J	-24845591.28	-24845591.09	-24845590.89	0.0270	0.0149
Saturn	-72736-07-05 22:04 J	-24845214.61	-24845214.58	-24845214.52	0.0267	0.0262
Jupiter	-72735-03-12 15:49 J	-24844965.06	-24844964.84	-24844964.62	0.0527	0.0125
Jupiter	-72730-08-27 09:35 J	-24842971.29	-24842971.10	-24842970.90	0.0501	0.0300
Saturn	-72724-11-22 19:11 J	-24840691.84	-24840691.70	-24840691.55	0.0280	0.0226
Jupiter	-72723-03-17 17:59 J	-24840576.94	-24840576.75	-24840576.57	0.0528	0.0326
Saturn	-72723-12-06 18:42 J	-24840312.97	-24840312.72	-24840312.47	0.0285	0.0063

Saturn -72722-12-21 03:06 J -24839933.61 -24839933.37 -24839933.13 0.0290 0.0112
 Neptune -72721-10-01 08:09 J -24839648.23 -24839648.16 -24839648.07 0.0089 0.0084
 Saturn -72720-01-03 22:33 J -24839553.60 -24839553.56 -24839553.52 0.0294 0.0290
 Mars -72720-06-13 04:33 J -24839393.50 -24839393.31 -24839393.13 0.1826 0.0506
 Neptune -72720-10-04 00:57 J -24839280.55 -24839280.46 -24839280.33 0.0089 0.0081
 Neptune -72719-10-06 14:09 J -24838913.09 -24838912.91 -24838912.73 0.0089 0.0062
 Jupiter -72718-08-31 19:25 J -24838583.91 -24838583.69 -24838583.46 0.0500 0.0101
 Neptune -72718-10-09 01:40 J -24838545.61 -24838545.43 -24838545.20 0.0089 0.0059
 Neptune -72717-10-10 18:57 J -24838177.91 -24838177.71 -24838177.46 0.0089 0.0041
 Uranus -72716-01-11 02:52 J -24838085.58 -24838085.38 -24838085.16 0.0134 0.0072
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 Uranus -72715-01-15 15:35 J -24837716.10 -24837715.85 -24837715.58 0.0133 0.0031
 Neptune -72715-10-16 00:13 J -24837442.74 -24837442.49 -24837442.23 0.0089 0.0018
 Uranus -72714-01-19 23:16 J -24837346.77 -24837346.53 -24837346.28 0.0133 0.0031
 Neptune -72714-10-18 07:11 J -24837075.46 -24837075.20 -24837074.94 0.0089 0.0014
 Uranus -72713-01-24 11:01 J -24836977.25 -24836977.04 -24836976.82 0.0133 0.0076
 Neptune -72713-10-20 03:49 J -24836707.60 -24836707.34 -24836707.06 0.0089 0.0005
 Uranus -72712-01-27 16:18 J -24836607.88 -24836607.82 -24836607.73 0.0132 0.0125
 Neptune -72712-10-22 11:59 J -24836340.25 -24836340.00 -24836339.74 0.0089 0.0010
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 Saturn -72710-05-27 04:47 J -24835758.48 -24835758.30 -24835758.11 0.0281 0.0173
 Neptune -72710-10-27 17:59 J -24835604.98 -24835604.75 -24835604.50 0.0089 0.0032
 Saturn -72709-06-07 11:45 J -24835381.26 -24835381.01 -24835380.77 0.0276 0.0033
 Neptune -72709-10-29 07:40 J -24835237.39 -24835237.18 -24835236.93 0.0089 0.0048
 Saturn -72708-06-19 05:30 J -24835004.50 -24835004.27 -24835004.04 0.0272 0.0090
 Neptune -72708-10-31 23:45 J -24834869.69 -24834869.51 -24834869.29 0.0088 0.0055
 Saturn -72707-06-30 21:35 J -24834627.74 -24834627.60 -24834627.44 0.0268 0.0209
 Neptune -72707-11-03 08:52 J -24834502.27 -24834502.13 -24834501.94 0.0088 0.0071
 Jupiter -72706-09-05 16:18 J -24834196.05 -24834195.82 -24834195.58 0.0499 0.0074
 Neptune -72706-11-06 04:47 J -24834134.39 -24834134.30 -24834134.14 0.0088 0.0078

Jupiter -72694-09-09 22:33 J -24829808.75 -24829808.56 -24829808.36 0.0498 0.0292
 Saturn -72694-11-30 07:40 J -24829727.39 -24829727.18 -24829726.97 0.0282 0.0142
 Saturn -72693-12-13 18:13 J -24829347.98 -24829347.74 -24829347.50 0.0287 0.0028
 Saturn -72692-12-28 12:57 J -24828968.13 -24828967.96 -24828967.78 0.0292 0.0205
 Pluto -72686-09-14 08:52 J -24826882.39 -24826882.13 -24826881.86 0.0065 0.0007
 Saturn -72681-05-20 13:11 J -24825172.07 -24825171.95 -24825171.81 0.0284 0.0237
 Saturn -72680-06-02 03:35 J -24824794.56 -24824794.35 -24824794.12 0.0279 0.0092
 Saturn -72679-06-14 12:13 J -24824417.22 -24824416.99 -24824416.76 0.0274 0.0038
 Saturn -72678-06-26 07:40 J -24824040.37 -24824040.18 -24824039.98 0.0270 0.0159
 Jupiter -72676-03-02 03:21 J -24823425.51 -24823425.36 -24823425.20 0.0525 0.0398
 Uranus -72673-07-05 12:28 J -24822204.13 -24822203.98 -24822203.84 0.0145 0.0116
 Uranus -72672-07-10 02:52 J -24821834.60 -24821834.38 -24821834.14 0.0145 0.0062
 Uranus -72671-07-15 07:11 J -24821464.44 -24821464.20 -24821463.96 0.0146 0.0007
 Uranus -72670-07-20 00:57 J -24821094.66 -24821094.46 -24821094.23 0.0146 0.0080
 Uranus -72669-07-24 05:01 J -24820724.37 -24820724.29 -24820724.18 0.0146 0.0135
 Saturn -72665-11-23 11:59 J -24819141.16 -24819141.00 -24819140.82 0.0280 0.0209
 Jupiter -72664-03-06 23:59 J -24819037.71 -24819037.50 -24819037.28 0.0526 0.0120
 Saturn -72664-12-07 09:21 J -24818762.37 -24818762.11 -24818761.86 0.0285 0.0047
 Mars -72663-12-17 14:37 J -24818387.03 -24818386.89 -24818386.75 0.1728 0.1109
 Saturn -72663-12-21 20:09 J -24818382.88 -24818382.66 -24818382.43 0.0290 0.0128
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 Saturn -72651-05-28 01:54 J -24814207.62 -24814207.42 -24814207.22 0.0281 0.0158
 Saturn -72650-06-09 04:47 J -24813830.54 -24813830.30 -24813830.05 0.0276 0.0023
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 Saturn -72648-07-01 23:16 J -24813076.65 -24813076.53 -24813076.38 0.0268 0.0221
 Jupiter -72647-08-26 18:13 J -24812655.92 -24812655.74 -24812655.56 0.0501 0.0300
 Mars -72641-06-15 17:16 J -24810535.89 -24810535.78 -24810535.66 0.1819 0.1336
 Jupiter -72640-03-16 19:54 J -24810261.85 -24810261.67 -24810261.49 0.0528 0.0318
 Neptune -72638-04-06 20:37 J -24809510.72 -24809510.64 -24809510.52 0.0089 0.0081
 Neptune -72637-04-08 01:40 J -24809143.53 -24809143.43 -24809143.31 0.0089 0.0079

Neptune -72636-04-10 14:23 J -24808776.07 -24808775.90 -24808775.68 0.0089 0.0061
 Saturn -72636-11-17 07:40 J -24808555.19 -24808555.18 -24808555.15 0.0278 0.0276
 Neptune -72635-04-12 23:30 J -24808408.68 -24808408.52 -24808408.31 0.0089 0.0059
 Jupiter -72635-08-31 14:37 J -24808268.12 -24808267.89 -24808267.66 0.0500 0.0110
 Saturn -72635-12-01 06:28 J -24808176.45 -24808176.23 -24808176.01 0.0282 0.0125
 Neptune -72634-04-15 07:25 J -24808041.41 -24808041.19 -24808040.94 0.0089 0.0040
 Saturn -72634-12-15 13:40 J -24807797.18 -24807796.93 -24807796.68 0.0287 0.0043
 Uranus -72633-01-08 00:13 J -24807773.57 -24807773.49 -24807773.37 0.0134 0.0124
 Neptune -72633-04-16 20:52 J -24807673.84 -24807673.63 -24807673.39 0.0089 0.0038
 Saturn -72633-12-29 04:18 J -24807417.49 -24807417.32 -24807417.14 0.0292 0.0217
 Uranus -72632-01-11 11:59 J -24807404.17 -24807404.00 -24807403.78 0.0134 0.0083
 Neptune -72632-04-19 00:42 J -24807306.71 -24807306.47 -24807306.21 0.0089 0.0018
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 Neptune -72628-04-27 16:33 J -24805837.04 -24805836.81 -24805836.57 0.0089 0.0024
 Neptune -72627-04-30 04:18 J -24805469.57 -24805469.32 -24805469.07 0.0089 0.0027
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 Neptune -72625-05-03 20:23 J -24804734.84 -24804734.65 -24804734.41 0.0089 0.0049
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 Neptune -72622-05-11 05:59 J -24803632.28 -24803632.25 -24803632.18 0.0089 0.0087
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 Saturn -72621-06-03 04:18 J -24803243.55 -24803243.32 -24803243.10 0.0279 0.0080
 Saturn -72620-06-15 08:23 J -24802866.39 -24802866.15 -24802865.90 0.0274 0.0050

Saturn -72619-06-26 22:47 J -24802489.73 -24802489.55 -24802489.35 0.0270 0.0170
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 Saturn -72606-11-25 01:40 J -24797590.60 -24797590.43 -24797590.23 0.0280 0.0192
 Saturn -72605-12-08 03:06 J -24797211.61 -24797211.37 -24797211.12 0.0285 0.0033
 Saturn -72604-12-22 18:13 J -24796831.95 -24796831.74 -24796831.52 0.0290 0.0140
 Pluto -72598-03-21 10:18 J -24794917.22 -24794917.07 -24794916.87 0.0080 0.0057
 Jupiter -72593-03-01 10:47 J -24793110.19 -24793110.05 -24793109.91 0.0524 0.0404
 Saturn -72592-05-28 16:18 J -24792657.02 -24792656.82 -24792656.60 0.0281 0.0147
 Saturn -72591-06-09 23:45 J -24792279.74 -24792279.51 -24792279.27 0.0276 0.0011
 Saturn -72590-06-22 03:35 J -24791902.56 -24791902.35 -24791902.13 0.0272 0.0112
 Saturn -72589-07-02 20:37 J -24791525.74 -24791525.64 -24791525.50 0.0268 0.0232
 Uranus -72589-07-05 21:21 J -24791522.71 -24791522.61 -24791522.48 0.0145 0.0128
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 Jupiter -72569-03-11 09:21 J -24784334.33 -24784334.11 -24784333.88 0.0527 0.0099
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 Mars -72537-12-11 15:49 J -24772370.98 -24772370.84 -24772370.70 0.1706 0.1225
 Saturn -72534-05-17 16:47 J -24771483.82 -24771483.80 -24771483.77 0.0286 0.0284
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 Saturn -72530-07-04 12:13 J -24769975.07 -24769974.99 -24769974.88 0.0268 0.0247

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 Saturn -72504-05-24 05:01 J -24760519.45 -24760519.29 -24760519.11 0.0284 0.0204
 Uranus -72504-07-10 16:18 J -24760472.03 -24760471.82 -24760471.58 0.0145 0.0061
 Saturn -72503-06-05 15:06 J -24760142.11 -24760141.87 -24760141.63 0.0279 0.0062
 Uranus -72503-07-15 21:35 J -24760101.85 -24760101.60 -24760101.36 0.0146 0.0011
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 Saturn -72501-06-28 16:47 J -24759387.95 -24759387.80 -24759387.64 0.0270 0.0197
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 Jupiter -72498-03-06 21:49 J -24758406.81 -24758406.59 -24758406.36 0.0525 0.0123
 Saturn -72488-11-26 23:45 J -24754488.70 -24754488.51 -24754488.30 0.0280 0.0164
 Saturn -72487-12-11 01:54 J -24754109.68 -24754109.42 -24754109.17 0.0285 0.0006
 Jupiter -72486-03-12 02:37 J -24754018.62 -24754018.39 -24754018.17 0.0526 0.0084
 Saturn -72486-12-25 11:16 J -24753730.23 -24753730.03 -24753729.81 0.0290 0.0167
 Jupiter -72481-08-25 12:42 J -24752025.15 -24752024.97 -24752024.79 0.0502 0.0321
 Saturn -72475-05-18 12:28 J -24749933.04 -24749932.98 -24749932.91 0.0286 0.0275
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 Neptune -72474-04-06 05:30 J -24749610.31 -24749610.27 -24749610.22 0.0089 0.0087
 Saturn -72474-05-31 11:30 J -24749555.22 -24749555.02 -24749554.81 0.0281 0.0130
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 Saturn -72472-06-23 17:59 J -24748800.96 -24748800.75 -24748800.53 0.0272 0.0137

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 Saturn -72471-07-05 06:42 J -24748424.25 -24748424.22 -24748424.17 0.0268 0.0264
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 Neptune -72469-04-16 04:47 J -24747773.52 -24747773.30 -24747773.05 0.0089 0.0033
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 Neptune -72468-04-18 21:06 J -24747405.85 -24747405.62 -24747405.36 0.0089 0.0026
 Neptune -72467-04-21 00:28 J -24747038.72 -24747038.48 -24747038.23 0.0089 0.0012
 Neptune -72466-04-23 15:35 J -24746671.10 -24746670.85 -24746670.58 0.0089 0.0006
 Uranus -72465-01-08 14:37 J -24746410.98 -24746410.89 -24746410.76 0.0134 0.0122
 Neptune -72465-04-24 21:21 J -24746303.85 -24746303.61 -24746303.36 0.0089 0.0009
 Uranus -72464-01-12 05:45 J -24746041.46 -24746041.26 -24746041.06 0.0134 0.0079
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 Uranus -72463-01-16 14:09 J -24745672.17 -24745671.91 -24745671.64 0.0133 0.0013
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 Neptune -72460-05-05 18:13 J -24744466.93 -24744466.74 -24744466.54 0.0089 0.0057
 Neptune -72459-05-08 10:18 J -24744099.20 -24744099.07 -24744098.90 0.0089 0.0072
 Saturn -72459-11-20 18:57 J -24743902.85 -24743902.71 -24743902.56 0.0277 0.0230
 Neptune -72458-05-10 13:54 J -24743732.02 -24743731.92 -24743731.79 0.0089 0.0078
 Saturn -72458-12-04 13:25 J -24743524.18 -24743523.94 -24743523.70 0.0282 0.0079
 Mars -72458-12-15 15:49 J -24743513.05 -24743512.84 -24743512.63 0.1713 0.0277
 Jupiter -72457-09-03 20:09 J -24743249.91 -24743249.66 -24743249.42 0.0500 0.0054
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Saturn -72443-06-18 16:47 J -24738214.02 -24738213.80 -24738213.58 0.0275 0.0081
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 Pluto -72437-09-15 19:25 J -24735932.84 -24735932.69 -24735932.49 0.0065 0.0048
 Mars -72436-06-12 20:09 J -24735662.85 -24735662.66 -24735662.47 0.1838 0.0583
 Saturn -72429-11-28 01:25 J -24732937.65 -24732937.44 -24732937.21 0.0280 0.0149
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 Jupiter -72427-03-01 05:01 J -24732479.44 -24732479.29 -24732479.14 0.0524 0.0399
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 Uranus -72420-07-10 21:06 J -24729790.84 -24729790.62 -24729790.38 0.0145 0.0052
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 Jupiter -72398-08-26 05:16 J -24721709.44 -24721709.28 -24721709.11 0.0502 0.0334
 Saturn -72398-12-20 05:59 J -24721593.47 -24721593.25 -24721593.01 0.0287 0.0103
 Saturn -72396-01-02 22:33 J -24721213.63 -24721213.56 -24721213.47 0.0292 0.0274
 Neptune -72392-10-02 17:59 J -24719479.87 -24719479.75 -24719479.58 0.0089 0.0074
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 Jupiter -72362-09-08 16:18 J -24708547.01 -24708546.82 -24708546.62 0.0499 0.0288
 Saturn -72357-05-20 17:59 J -24706830.86 -24706830.75 -24706830.63 0.0286 0.0250
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Saturn -72355-06-14 13:54 J -24706076.16 -24706075.92 -24706075.68 0.0276 0.0028
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 Pluto -72349-03-23 06:28 J -24703967.44 -24703967.23 -24703967.00 0.0079 0.0043
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 Uranus -72337-07-06 14:23 J -24699479.04 -24699478.90 -24699478.73 0.0145 0.0114
 Uranus -72336-07-11 04:18 J -24699109.54 -24699109.32 -24699109.09 0.0145 0.0061
 Uranus -72335-07-16 08:52 J -24698739.38 -24698739.13 -24698738.88 0.0145 0.0013
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 Uranus -72333-07-25 06:42 J -24697999.28 -24697999.22 -24697999.15 0.0146 0.0141
 Jupiter -72332-03-05 09:49 J -24697776.32 -24697776.09 -24697775.87 0.0525 0.0163
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Saturn -72221-12-24 16:33 J -24656939.02 -24656938.81 -24656938.61 0.0288 0.0162
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 Saturn -72062-05-30 03:35 J -24599073.53 -24599073.35 -24599073.15 0.0283 0.0167
 Neptune -72062-10-06 17:30 J -24598943.94 -24598943.77 -24598943.58 0.0089 0.0063
 Saturn -72061-06-10 13:40 J -24598696.17 -24598695.93 -24598695.68 0.0279 0.0022
 Neptune -72061-10-08 11:01 J -24598576.26 -24598576.04 -24598575.79 0.0089 0.0044
 Saturn -72060-06-22 13:25 J -24598319.15 -24598318.94 -24598318.72 0.0274 0.0118
 Neptune -72060-10-10 22:18 J -24598208.78 -24598208.57 -24598208.33 0.0089 0.0042
 Jupiter -72059-03-12 22:33 J -24598055.77 -24598055.56 -24598055.34 0.0526 0.0191
 Saturn -72059-07-04 11:30 J -24597942.07 -24597942.02 -24597941.94 0.0270 0.0258
 Neptune -72059-10-13 12:28 J -24597841.24 -24597840.98 -24597840.72 0.0089 0.0023
 Neptune -72058-10-16 04:04 J -24597473.56 -24597473.33 -24597473.07 0.0089 0.0022

Neptune -72057-10-17 13:54 J -24597106.19 -24597105.92 -24597105.65 0.0089 0.0003
 Neptune -72056-10-20 09:35 J -24596738.36 -24596738.10 -24596737.84 0.0089 0.0001
 Neptune -72055-10-22 16:33 J -24596371.07 -24596370.81 -24596370.55 0.0089 0.0018
 Jupiter -72054-08-28 00:57 J -24596061.66 -24596061.46 -24596061.27 0.0502 0.0268
 Neptune -72054-10-25 13:11 J -24596003.19 -24596002.95 -24596002.68 0.0089 0.0022
 Neptune -72053-10-26 20:37 J -24595635.86 -24595635.64 -24595635.40 0.0089 0.0039
 Neptune -72052-10-29 16:04 J -24595268.07 -24595267.83 -24595267.59 0.0089 0.0042
 Neptune -72051-11-01 01:54 J -24594900.58 -24594900.42 -24594900.20 0.0088 0.0059
 Neptune -72050-11-03 17:59 J -24594532.94 -24594532.75 -24594532.56 0.0088 0.0062
 Neptune -72049-11-05 08:37 J -24594165.23 -24594165.14 -24594164.99 0.0088 0.0079
 Neptune -72048-11-07 19:54 J -24593797.75 -24593797.67 -24593797.56 0.0088 0.0083
 Jupiter -72047-03-18 01:25 J -24593667.53 -24593667.44 -24593667.35 0.0527 0.0480
 Saturn -72047-11-20 02:23 J -24593420.49 -24593420.40 -24593420.29 0.0276 0.0250
 Saturn -72046-12-03 21:06 J -24593041.85 -24593041.62 -24593041.39 0.0281 0.0100
 Uranus -72045-01-10 02:52 J -24593004.46 -24593004.38 -24593004.25 0.0134 0.0122
 Saturn -72045-12-17 01:54 J -24592662.66 -24592662.42 -24592662.18 0.0286 0.0067
 Uranus -72044-01-13 21:49 J -24592634.80 -24592634.59 -24592634.34 0.0134 0.0059
 Saturn -72044-12-31 14:37 J -24592283.02 -24592282.89 -24592282.75 0.0290 0.0240
 Uranus -72043-01-18 01:54 J -24592265.68 -24592265.42 -24592265.16 0.0133 0.0016
 Uranus -72042-01-22 18:13 J -24591895.96 -24591895.74 -24591895.49 0.0133 0.0052
 Jupiter -72042-09-01 05:59 J -24591674.48 -24591674.25 -24591674.01 0.0501 0.0037
 Uranus -72041-01-26 20:23 J -24591526.82 -24591526.65 -24591526.44 0.0133 0.0092
 Saturn -72033-05-23 16:47 J -24588486.93 -24588486.80 -24588486.66 0.0285 0.0231
 Saturn -72032-06-05 12:42 J -24588109.19 -24588108.97 -24588108.75 0.0280 0.0087
 Saturn -72031-06-17 23:45 J -24587731.74 -24587731.51 -24587731.27 0.0276 0.0056
 Saturn -72030-06-29 21:21 J -24587354.77 -24587354.61 -24587354.43 0.0272 0.0196
 Jupiter -72030-09-06 00:13 J -24587286.70 -24587286.49 -24587286.28 0.0499 0.0216
 Jupiter -72018-09-10 07:25 J -24582899.32 -24582899.19 -24582899.06 0.0499 0.0417
 Saturn -72017-11-27 04:47 J -24582455.50 -24582455.30 -24582455.08 0.0278 0.0170
 Saturn -72016-12-10 23:16 J -24582076.79 -24582076.53 -24582076.28 0.0283 0.0013

Saturn -72015-12-25 07:11 J -24581697.40 -24581697.20 -24581696.99 0.0288 0.0159

Saturn -72003-05-31 15:35 J -24577522.05 -24577521.85 -24577521.63 0.0283 0.0144

Saturn -72002-06-12 22:47 J -24577144.79 -24577144.55 -24577144.30 0.0278 0.0004

Saturn -72001-06-24 02:23 J -24576767.60 -24576767.40 -24576767.20 0.0274 0.0139

Uranus -72001-07-08 03:06 J -24576753.53 -24576753.37 -24576753.17 0.0145 0.0105

72ND MILLENNIUM BCE

This is a list of transits of Moon in the 72nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-72000-03-02 07:25 J	-24576516.38	-24576516.19	-24576515.99	0.0524	0.0310		
Uranus	-72000-07-12 20:23 J	-24576383.87	-24576383.65	-24576383.41	0.0145	0.0051		
Uranus	-71999-07-17 22:33 J	-24576013.81	-24576013.56	-24576013.30	0.0146	0.0027		
Uranus	-71998-07-22 16:04 J	-24575644.01	-24575643.83	-24575643.63	0.0146	0.0095		
Jupiter	-71988-03-06 21:06 J	-24572128.85	-24572128.62	-24572128.40	0.0525	0.0108		
Saturn	-71988-11-21 18:13 J	-24571868.87	-24571868.74	-24571868.61	0.0277	0.0233		
Saturn	-71987-12-05 13:54 J	-24571490.16	-24571489.92	-24571489.68	0.0281	0.0080		
Saturn	-71986-12-19 16:33 J	-24571111.05	-24571110.81	-24571110.56	0.0286	0.0087		
Saturn	-71984-01-02 03:21 J	-24570731.47	-24570731.36	-24570731.24	0.0291	0.0260		
Jupiter	-71983-08-22 15:35 J	-24570133.93	-24570133.85	-24570133.78	0.0503	0.0475		
Neptune	-71982-04-04 19:40 J	-24569908.77	-24569908.68	-24569908.56	0.0089	0.0081		
Neptune	-71981-04-06 11:30 J	-24569541.11	-24569541.02	-24569540.91	0.0089	0.0081		
Neptune	-71980-04-08 14:52 J	-24569174.05	-24569173.88	-24569173.69	0.0089	0.0062		
Neptune	-71979-04-11 07:40 J	-24568806.36	-24568806.18	-24568806.00	0.0089	0.0061		

Neptune -71978-04-13 11:01 J -24568439.24 -24568439.04 -24568438.80 0.0089 0.0043
 Neptune -71977-04-15 00:57 J -24568071.67 -24568071.46 -24568071.20 0.0089 0.0042
 Jupiter -71976-03-12 02:23 J -24567740.61 -24567740.40 -24567740.17 0.0526 0.0164
 Neptune -71976-04-17 08:52 J -24567704.36 -24567704.13 -24567703.88 0.0089 0.0024
 Neptune -71975-04-19 18:28 J -24567336.98 -24567336.73 -24567336.47 0.0089 0.0022
 Neptune -71974-04-22 07:25 J -24566969.43 -24566969.19 -24566968.94 0.0089 0.0004
 Saturn -71974-05-26 09:06 J -24566935.26 -24566935.12 -24566934.95 0.0284 0.0210
 Neptune -71973-04-23 12:28 J -24566602.24 -24566601.98 -24566601.72 0.0089 0.0002
 Saturn -71973-06-07 05:30 J -24566557.50 -24566557.27 -24566557.04 0.0280 0.0067
 Neptune -71972-04-26 04:18 J -24566234.56 -24566234.32 -24566234.07 0.0089 0.0017
 Saturn -71972-06-19 11:01 J -24566180.28 -24566180.04 -24566179.80 0.0275 0.0075
 Neptune -71971-04-28 06:57 J -24565867.45 -24565867.21 -24565866.96 0.0089 0.0018
 Saturn -71971-07-01 04:04 J -24565803.47 -24565803.33 -24565803.18 0.0271 0.0214
 Jupiter -71971-08-26 20:52 J -24565746.82 -24565746.63 -24565746.43 0.0502 0.0290
 Neptune -71970-04-30 22:47 J -24565499.77 -24565499.55 -24565499.30 0.0089 0.0036
 Neptune -71969-05-02 03:06 J -24565132.58 -24565132.37 -24565132.14 0.0089 0.0037
 Mars -71969-12-13 12:13 J -24564907.16 -24564906.99 -24564906.81 0.1691 0.0757
 Neptune -71968-05-04 15:21 J -24564765.05 -24564764.86 -24564764.64 0.0089 0.0055
 Neptune -71967-05-06 23:45 J -24564397.68 -24564397.51 -24564397.31 0.0089 0.0057
 Neptune -71966-05-09 07:11 J -24564030.31 -24564030.20 -24564030.04 0.0089 0.0075
 Neptune -71965-05-10 20:52 J -24563662.73 -24563662.63 -24563662.48 0.0089 0.0076
 Jupiter -71964-03-16 19:25 J -24563352.81 -24563352.69 -24563352.57 0.0527 0.0454
 Uranus -71961-01-10 11:30 J -24562323.13 -24562323.02 -24562322.87 0.0134 0.0116
 Uranus -71960-01-14 06:42 J -24561953.44 -24561953.22 -24561952.99 0.0134 0.0067
 Uranus -71959-01-18 10:33 J -24561584.32 -24561584.06 -24561583.80 0.0133 0.0001
 Jupiter -71959-08-31 15:35 J -24561359.08 -24561358.85 -24561358.62 0.0501 0.0051
 Uranus -71958-01-23 03:21 J -24561214.60 -24561214.36 -24561214.10 0.0133 0.0040
 Saturn -71958-11-29 11:59 J -24560904.20 -24560904.00 -24560903.77 0.0279 0.0152
 Uranus -71957-01-27 05:30 J -24560845.41 -24560845.27 -24560845.10 0.0133 0.0106
 Saturn -71957-12-12 11:59 J -24560525.24 -24560525.00 -24560524.75 0.0284 0.0008

Saturn -71956-12-27 00:13 J -24560145.67 -24560145.49 -24560145.29 0.0288 0.0179
 Jupiter -71947-09-04 20:23 J -24556971.87 -24556971.65 -24556971.42 0.0500 0.0192
 Saturn -71945-05-20 07:54 J -24556348.24 -24556348.17 -24556348.09 0.0287 0.0271
 Saturn -71944-06-02 00:13 J -24555970.71 -24555970.49 -24555970.27 0.0282 0.0125
 Saturn -71943-06-14 11:01 J -24555593.27 -24555593.04 -24555592.81 0.0278 0.0018
 Saturn -71942-06-26 16:47 J -24555215.99 -24555215.80 -24555215.61 0.0273 0.0158
 Pluto -71941-09-17 19:40 J -24554766.92 -24554766.68 -24554766.42 0.0065 0.0013
 Jupiter -71935-09-09 10:18 J -24552584.20 -24552584.07 -24552583.92 0.0500 0.0394
 Saturn -71929-11-23 06:13 J -24550317.39 -24550317.24 -24550317.08 0.0277 0.0213
 Saturn -71928-12-06 22:33 J -24549938.81 -24549938.56 -24549938.30 0.0282 0.0061
 Saturn -71927-12-20 23:01 J -24549559.78 -24549559.54 -24549559.30 0.0287 0.0104
 Saturn -71925-01-04 11:30 J -24549180.09 -24549180.02 -24549179.95 0.0291 0.0278
 Jupiter -71917-02-29 23:30 J -24546201.68 -24546201.52 -24546201.34 0.0523 0.0344
 Uranus -71917-07-08 07:25 J -24546072.31 -24546072.19 -24546072.02 0.0145 0.0121
 Uranus -71916-07-13 02:23 J -24545702.63 -24545702.40 -24545702.16 0.0145 0.0039
 Saturn -71915-05-28 00:13 J -24545383.65 -24545383.49 -24545383.31 0.0284 0.0191
 Uranus -71915-07-18 03:06 J -24545332.62 -24545332.37 -24545332.11 0.0146 0.0020
 Saturn -71914-06-09 15:21 J -24545006.10 -24545005.86 -24545005.61 0.0279 0.0045
 Uranus -71914-07-22 21:35 J -24544962.78 -24544962.60 -24544962.41 0.0146 0.0093
 Saturn -71913-06-20 15:21 J -24544629.08 -24544628.86 -24544628.62 0.0275 0.0095
 Saturn -71912-07-02 11:16 J -24544252.15 -24544252.03 -24544251.91 0.0270 0.0233
 Jupiter -71905-03-06 05:45 J -24541813.49 -24541813.26 -24541813.04 0.0525 0.0130
 Neptune -71901-09-28 10:33 J -24540146.08 -24540146.06 -24540146.04 0.0089 0.0088
 Jupiter -71900-08-21 14:09 J -24539818.95 -24539818.91 -24539818.88 0.0503 0.0496
 Neptune -71900-10-01 06:13 J -24539778.35 -24539778.24 -24539778.09 0.0089 0.0078
 Neptune -71899-10-03 14:09 J -24539411.04 -24539410.91 -24539410.72 0.0089 0.0070
 Saturn -71899-11-30 19:40 J -24539352.88 -24539352.68 -24539352.46 0.0279 0.0135
 Neptune -71898-10-06 07:54 J -24539043.37 -24539043.17 -24539042.95 0.0089 0.0057
 Saturn -71898-12-14 23:16 J -24538973.77 -24538973.53 -24538973.29 0.0284 0.0024
 Neptune -71897-10-07 19:54 J -24538675.86 -24538675.67 -24538675.44 0.0089 0.0050

Saturn -71897-12-28 11:16 J -24538594.21 -24538594.03 -24538593.84 0.0289 0.0195
 Neptune -71896-10-10 08:09 J -24538308.38 -24538308.16 -24538307.89 0.0089 0.0038
 Neptune -71895-10-13 00:57 J -24537940.68 -24537940.46 -24537940.20 0.0089 0.0031
 Neptune -71894-10-15 09:21 J -24537573.36 -24537573.11 -24537572.83 0.0089 0.0018
 Jupiter -71893-03-10 23:01 J -24537425.76 -24537425.54 -24537425.30 0.0525 0.0153
 Neptune -71893-10-17 05:45 J -24537205.51 -24537205.26 -24537205.00 0.0089 0.0010
 Neptune -71892-10-19 12:28 J -24536838.24 -24536837.98 -24536837.72 0.0089 0.0004
 Neptune -71891-10-22 09:06 J -24536470.38 -24536470.12 -24536469.85 0.0089 0.0010
 Neptune -71890-10-24 16:47 J -24536103.04 -24536102.80 -24536102.55 0.0089 0.0025
 Mars -71890-12-16 21:06 J -24536049.80 -24536049.62 -24536049.44 0.1697 0.0219
 Neptune -71889-10-26 11:01 J -24535735.28 -24535735.04 -24535734.76 0.0089 0.0030
 Jupiter -71888-08-26 05:16 J -24535431.45 -24535431.28 -24535431.10 0.0502 0.0311
 Neptune -71888-10-28 23:01 J -24535367.76 -24535367.54 -24535367.32 0.0089 0.0045
 Neptune -71887-10-31 12:42 J -24535000.18 -24534999.97 -24534999.73 0.0089 0.0050
 Saturn -71886-05-22 11:45 J -24534797.10 -24534797.01 -24534796.89 0.0287 0.0256
 Neptune -71886-11-03 04:47 J -24534632.46 -24534632.30 -24534632.12 0.0089 0.0066
 Saturn -71885-06-03 07:54 J -24534419.38 -24534419.17 -24534418.95 0.0282 0.0105
 Neptune -71885-11-04 14:09 J -24534265.06 -24534264.91 -24534264.72 0.0088 0.0070
 Saturn -71884-06-15 22:18 J -24534041.80 -24534041.57 -24534041.34 0.0277 0.0037
 Neptune -71884-11-07 10:18 J -24533897.12 -24533897.07 -24533896.99 0.0088 0.0086
 Saturn -71883-06-28 00:57 J -24533664.65 -24533664.46 -24533664.28 0.0273 0.0176
 Neptune -71883-11-09 17:30 J -24533529.78 -24533529.77 -24533529.72 0.0088 0.0088
 Jupiter -71881-03-16 02:37 J -24533037.51 -24533037.39 -24533037.27 0.0526 0.0441
 Uranus -71877-01-10 19:54 J -24531641.79 -24531641.67 -24531641.55 0.0134 0.0118
 Uranus -71876-01-14 14:52 J -24531272.12 -24531271.88 -24531271.64 0.0134 0.0055
 Jupiter -71876-08-30 13:25 J -24531044.18 -24531043.94 -24531043.70 0.0502 0.0069
 Uranus -71875-01-18 18:13 J -24530902.99 -24530902.74 -24530902.48 0.0133 0.0011
 Uranus -71874-01-23 11:01 J -24530533.26 -24530533.04 -24530532.79 0.0133 0.0057
 Uranus -71873-01-27 12:57 J -24530164.12 -24530163.96 -24530163.77 0.0133 0.0097
 Saturn -71870-11-25 08:23 J -24528766.32 -24528766.15 -24528765.96 0.0277 0.0198

Saturn -71869-12-07 22:33 J -24528387.82 -24528387.56 -24528387.30 0.0282 0.0046
 Mars -71868-06-13 15:21 J -24528200.04 -24528199.86 -24528199.68 0.1857 0.0553
 Saturn -71868-12-22 01:54 J -24528008.64 -24528008.42 -24528008.19 0.0287 0.0120
 Jupiter -71864-09-04 05:01 J -24526656.50 -24526656.29 -24526656.08 0.0501 0.0182
 Saturn -71856-05-29 07:54 J -24523832.36 -24523832.17 -24523831.98 0.0284 0.0174
 Saturn -71855-06-10 17:30 J -24523455.01 -24523454.77 -24523454.52 0.0279 0.0029
 Saturn -71854-06-22 19:54 J -24523077.89 -24523077.67 -24523077.45 0.0274 0.0113
 Saturn -71853-07-03 19:40 J -24522700.74 -24522700.68 -24522700.58 0.0270 0.0253
 Pluto -71852-03-26 13:25 J -24522435.02 -24522434.94 -24522434.81 0.0079 0.0072
 Jupiter -71852-09-08 21:35 J -24522268.76 -24522268.60 -24522268.44 0.0499 0.0373
 Saturn -71841-11-18 09:49 J -24518180.14 -24518180.09 -24518180.02 0.0275 0.0265
 Saturn -71840-12-02 02:09 J -24517801.62 -24517801.41 -24517801.18 0.0280 0.0120
 Saturn -71839-12-16 03:21 J -24517422.61 -24517422.36 -24517422.10 0.0284 0.0041
 Saturn -71838-12-30 11:45 J -24517043.18 -24517043.01 -24517042.82 0.0289 0.0210
 Jupiter -71834-03-01 13:25 J -24515886.11 -24515885.94 -24515885.78 0.0523 0.0361
 Uranus -71833-07-08 11:16 J -24515391.18 -24515391.03 -24515390.83 0.0145 0.0107
 Uranus -71832-07-13 07:40 J -24515021.40 -24515021.18 -24515020.95 0.0145 0.0052
 Uranus -71831-07-18 06:57 J -24514651.46 -24514651.21 -24514650.95 0.0145 0.0029
 Uranus -71830-07-23 03:06 J -24514281.55 -24514281.37 -24514281.18 0.0146 0.0094
 Saturn -71827-05-23 16:33 J -24513245.92 -24513245.81 -24513245.68 0.0287 0.0243
 Saturn -71826-06-05 16:04 J -24512868.05 -24512867.83 -24512867.61 0.0282 0.0091
 Saturn -71825-06-17 03:49 J -24512490.58 -24512490.34 -24512490.11 0.0277 0.0054
 Saturn -71824-06-28 23:30 J -24512113.68 -24512113.52 -24512113.34 0.0272 0.0196
 Jupiter -71822-03-06 06:57 J -24511498.44 -24511498.21 -24511497.98 0.0524 0.0140
 Neptune -71818-04-04 13:40 J -24510007.95 -24510007.93 -24510007.85 0.0089 0.0087
 Neptune -71817-04-05 17:45 J -24509640.90 -24509640.76 -24509640.63 0.0089 0.0075
 Neptune -71816-04-08 10:04 J -24509273.24 -24509273.08 -24509272.90 0.0089 0.0067
 Neptune -71815-04-10 14:23 J -24508906.08 -24508905.90 -24508905.70 0.0089 0.0056
 Neptune -71814-04-13 04:04 J -24508538.53 -24508538.33 -24508538.09 0.0089 0.0049
 Neptune -71813-04-14 12:42 J -24508171.18 -24508170.97 -24508170.74 0.0089 0.0038

Neptune -71812-04-16 21:21 J -24507803.85 -24507803.61 -24507803.35 0.0089 0.0030
 Neptune -71811-04-19 10:18 J -24507436.30 -24507436.07 -24507435.82 0.0089 0.0018
 Saturn -71811-11-26 03:35 J -24507215.53 -24507215.35 -24507215.15 0.0277 0.0185
 Mars -71811-12-19 01:40 J -24507192.53 -24507192.43 -24507192.33 0.1702 0.1409
 Jupiter -71810-03-11 08:09 J -24507110.37 -24507110.16 -24507109.94 0.0525 0.0143
 Neptune -71810-04-21 14:37 J -24507069.14 -24507068.89 -24507068.63 0.0089 0.0009
 Saturn -71810-12-09 21:21 J -24506836.86 -24506836.61 -24506836.36 0.0282 0.0031
 Neptune -71809-04-23 07:11 J -24506701.45 -24506701.20 -24506700.95 0.0089 0.0002
 Saturn -71809-12-23 05:30 J -24506457.47 -24506457.27 -24506457.05 0.0287 0.0135
 Neptune -71808-04-25 10:04 J -24506334.33 -24506334.08 -24506333.83 0.0089 0.0009
 Neptune -71807-04-28 01:54 J -24505966.67 -24505966.42 -24505966.17 0.0089 0.0021
 Neptune -71806-04-30 06:42 J -24505599.45 -24505599.22 -24505598.99 0.0089 0.0028
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 Jupiter -71805-08-25 09:35 J -24505116.28 -24505116.10 -24505115.91 0.0503 0.0320
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 Jupiter -71798-03-16 05:30 J -24502722.40 -24502722.27 -24502722.12 0.0526 0.0418
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Saturn -71782-11-20 12:13 J -24496629.07 -24496628.99 -24496628.88 0.0275 0.0253
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 Jupiter -71532-09-02 16:18 J -24405395.05 -24405394.82 -24405394.59 0.0501 0.0146
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 Saturn -71530-06-23 04:47 J -24404736.51 -24404736.30 -24404736.07 0.0277 0.0128
 Mars -71527-12-20 06:13 J -24403460.28 -24403460.24 -24403460.20 0.1695 0.1640
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Saturn -71516-12-01 05:16 J -24399461.49 -24399461.28 -24399461.06 0.0277 0.0143
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 Saturn -71250-12-16 08:23 J -24302290.40 -24302290.15 -24302289.90 0.0281 0.0019
 Saturn -71249-12-29 09:49 J -24301911.27 -24301911.09 -24301910.89 0.0286 0.0194
 Uranus -71245-07-11 02:23 J -24300621.56 -24300621.40 -24300621.22 0.0145 0.0104
 Neptune -71245-09-26 02:52 J -24300544.42 -24300544.38 -24300544.27 0.0089 0.0085
 Uranus -71244-07-16 05:16 J -24300251.52 -24300251.28 -24300251.03 0.0145 0.0020
 Neptune -71244-09-28 11:01 J -24300177.15 -24300177.04 -24300176.90 0.0089 0.0078
 Uranus -71243-07-20 20:37 J -24299881.89 -24299881.64 -24299881.40 0.0146 0.0037
 Neptune -71243-10-01 06:28 J -24299809.38 -24299809.23 -24299809.04 0.0089 0.0068
 Uranus -71242-07-25 23:45 J -24299511.63 -24299511.51 -24299511.36 0.0146 0.0121
 Neptune -71242-10-03 12:28 J -24299442.15 -24299441.98 -24299441.77 0.0089 0.0061
 Jupiter -71241-03-02 01:40 J -24299291.65 -24299291.43 -24299291.22 0.0523 0.0224
 Neptune -71241-10-05 08:37 J -24299074.34 -24299074.14 -24299073.91 0.0089 0.0051
 Neptune -71240-10-07 15:49 J -24298707.06 -24298706.84 -24298706.61 0.0089 0.0042
 Neptune -71239-10-10 09:06 J -24298339.36 -24298339.12 -24298338.85 0.0089 0.0032
 Saturn -71238-05-23 17:16 J -24298113.79 -24298113.78 -24298113.74 0.0289 0.0288
 Neptune -71238-10-12 20:09 J -24297971.89 -24297971.66 -24297971.40 0.0089 0.0023
 Saturn -71237-06-04 23:45 J -24297735.72 -24297735.51 -24297735.29 0.0285 0.0114
 Neptune -71237-10-14 09:49 J -24297604.35 -24297604.09 -24297603.82 0.0089 0.0014
 Saturn -71236-06-17 20:09 J -24297357.89 -24297357.66 -24297357.43 0.0280 0.0058
 Neptune -71236-10-17 01:54 J -24297236.67 -24297236.42 -24297236.16 0.0089 0.0005
 Saturn -71235-06-30 02:09 J -24296980.56 -24296980.41 -24296980.26 0.0275 0.0219
 Neptune -71235-10-19 11:16 J -24296869.29 -24296869.03 -24296868.76 0.0089 0.0004
 Neptune -71234-10-22 06:57 J -24296501.46 -24296501.21 -24296500.95 0.0089 0.0016
 Neptune -71233-10-23 13:25 J -24296134.18 -24296133.94 -24296133.67 0.0089 0.0024
 Neptune -71232-10-26 10:18 J -24295766.29 -24295766.07 -24295765.81 0.0089 0.0036
 Neptune -71231-10-28 17:59 J -24295398.98 -24295398.75 -24295398.52 0.0089 0.0041

Neptune -71230-10-31 12:13 J -24295031.18 -24295030.99 -24295030.75 0.0089 0.0054
 Jupiter -71229-03-07 04:47 J -24294903.52 -24294903.30 -24294903.08 0.0524 0.0060
 Neptune -71229-11-01 22:33 J -24294663.72 -24294663.56 -24294663.34 0.0089 0.0059
 Neptune -71228-11-04 13:25 J -24294296.07 -24294295.94 -24294295.75 0.0089 0.0072
 Neptune -71227-11-07 05:01 J -24293928.39 -24293928.29 -24293928.14 0.0089 0.0077
 Jupiter -71224-08-22 14:37 J -24292909.04 -24292908.89 -24292908.73 0.0504 0.0381
 Saturn -71222-11-27 04:47 J -24292082.46 -24292082.30 -24292082.12 0.0274 0.0207
 Mars -71221-06-15 22:33 J -24291880.75 -24291880.56 -24291880.36 0.1872 0.0255
 Saturn -71221-12-09 12:57 J -24291704.20 -24291703.96 -24291703.71 0.0279 0.0058
 Saturn -71220-12-23 11:59 J -24291325.22 -24291325.00 -24291324.77 0.0284 0.0114
 Jupiter -71217-03-12 01:11 J -24290515.65 -24290515.45 -24290515.24 0.0525 0.0279
 Jupiter -71212-08-27 00:42 J -24288521.69 -24288521.47 -24288521.26 0.0503 0.0145
 Saturn -71208-05-30 22:18 J -24287148.74 -24287148.57 -24287148.37 0.0287 0.0186
 Saturn -71207-06-12 15:21 J -24286771.10 -24286770.86 -24286770.62 0.0282 0.0012
 Saturn -71206-06-25 03:06 J -24286393.56 -24286393.37 -24286393.17 0.0278 0.0154
 Uranus -71205-01-14 05:16 J -24286190.44 -24286190.28 -24286190.08 0.0134 0.0093
 Jupiter -71205-03-16 19:40 J -24286127.75 -24286127.68 -24286127.61 0.0525 0.0497
 Uranus -71204-01-17 17:30 J -24285821.02 -24285820.77 -24285820.50 0.0134 0.0035
 Uranus -71203-01-22 04:04 J -24285451.58 -24285451.33 -24285451.08 0.0133 0.0017
 Uranus -71202-01-26 14:37 J -24285082.08 -24285081.89 -24285081.67 0.0133 0.0084
 Uranus -71201-01-30 22:04 J -24284712.62 -24284712.58 -24284712.49 0.0133 0.0128
 Jupiter -71200-08-31 16:47 J -24284134.04 -24284133.80 -24284133.56 0.0502 0.0041
 Pluto -71197-09-21 17:01 J -24283016.93 -24283016.79 -24283016.59 0.0064 0.0050
 Pluto -71196-09-23 09:35 J -24282650.26 -24282650.10 -24282649.88 0.0065 0.0043
 Mars -71196-12-13 07:25 J -24282569.32 -24282569.19 -24282569.05 0.1664 0.1271
 Saturn -71193-11-21 01:25 J -24281495.48 -24281495.44 -24281495.36 0.0273 0.0264
 Saturn -71192-12-04 11:16 J -24281117.25 -24281117.03 -24281116.80 0.0277 0.0121
 Saturn -71191-12-18 02:52 J -24280738.63 -24280738.38 -24280738.12 0.0282 0.0043
 Saturn -71189-01-01 03:06 J -24280359.52 -24280359.37 -24280359.19 0.0287 0.0219
 Jupiter -71188-09-04 23:01 J -24279746.74 -24279746.54 -24279746.34 0.0501 0.0233

Saturn -71179-05-25 13:11 J -24276562.03 -24276561.95 -24276561.85 0.0289 0.0264
 Saturn -71178-06-07 18:42 J -24276183.94 -24276183.72 -24276183.49 0.0284 0.0091
 Saturn -71177-06-19 09:21 J -24275806.34 -24275806.11 -24275805.87 0.0279 0.0081
 Saturn -71176-07-01 10:47 J -24275429.16 -24275429.05 -24275428.93 0.0275 0.0241
 Jupiter -71176-09-09 17:01 J -24275358.86 -24275358.79 -24275358.71 0.0500 0.0474
 Saturn -71163-11-28 19:11 J -24270530.88 -24270530.70 -24270530.51 0.0275 0.0187
 Neptune -71162-04-02 05:01 J -24270406.36 -24270406.29 -24270406.17 0.0089 0.0083
 Saturn -71162-12-12 09:49 J -24270152.33 -24270152.09 -24270151.85 0.0279 0.0032
 Neptune -71161-04-03 17:16 J -24270038.88 -24270038.78 -24270038.63 0.0089 0.0076
 Uranus -71161-07-11 12:13 J -24269940.18 -24269939.99 -24269939.79 0.0145 0.0090
 Saturn -71161-12-25 12:42 J -24269773.18 -24269772.97 -24269772.76 0.0284 0.0140
 Neptune -71160-04-06 00:13 J -24269671.66 -24269671.49 -24269671.31 0.0089 0.0066
 Uranus -71160-07-16 15:35 J -24269570.09 -24269569.85 -24269569.61 0.0145 0.0032
 Neptune -71159-04-08 16:04 J -24269304.01 -24269303.83 -24269303.64 0.0089 0.0058
 Uranus -71159-07-21 06:13 J -24269200.47 -24269200.24 -24269200.00 0.0146 0.0055
 Jupiter -71158-03-02 03:21 J -24268976.56 -24268976.36 -24268976.16 0.0522 0.0253
 Neptune -71158-04-10 18:57 J -24268936.90 -24268936.71 -24268936.47 0.0089 0.0049
 Uranus -71158-07-26 10:47 J -24268830.19 -24268830.05 -24268829.90 0.0146 0.0116
 Neptune -71157-04-12 12:13 J -24268569.20 -24268568.99 -24268568.74 0.0089 0.0040
 Neptune -71156-04-14 16:33 J -24268202.04 -24268201.81 -24268201.57 0.0089 0.0031
 Neptune -71155-04-17 07:11 J -24267834.45 -24267834.20 -24267833.94 0.0089 0.0022
 Neptune -71154-04-19 14:23 J -24267467.14 -24267466.90 -24267466.65 0.0089 0.0014
 Neptune -71153-04-21 00:13 J -24267099.75 -24267099.49 -24267099.22 0.0089 0.0005
 Neptune -71152-04-23 12:57 J -24266732.21 -24266731.96 -24266731.71 0.0089 0.0004
 Neptune -71151-04-25 17:59 J -24266365.00 -24266364.75 -24266364.49 0.0089 0.0014
 Neptune -71150-04-28 09:49 J -24265997.33 -24265997.09 -24265996.84 0.0089 0.0022
 Neptune -71149-04-29 12:28 J -24265630.21 -24265629.98 -24265629.73 0.0089 0.0031
 Saturn -71149-06-01 11:59 J -24265597.19 -24265597.00 -24265596.79 0.0286 0.0163
 Neptune -71148-05-02 04:33 J -24265262.52 -24265262.31 -24265262.06 0.0089 0.0039
 Saturn -71148-06-14 07:54 J -24265219.40 -24265219.17 -24265218.93 0.0282 0.0011

Neptune -71147-05-04 08:37 J -24264895.33 -24264895.14 -24264894.92 0.0089 0.0049
 Saturn -71147-06-26 21:49 J -24264841.77 -24264841.59 -24264841.41 0.0277 0.0178
 Jupiter -71146-03-06 23:01 J -24264588.78 -24264588.54 -24264588.29 0.0523 0.0024
 Neptune -71146-05-06 21:21 J -24264527.79 -24264527.61 -24264527.39 0.0089 0.0057
 Neptune -71145-05-08 05:30 J -24264160.41 -24264160.27 -24264160.09 0.0089 0.0067
 Neptune -71144-05-10 13:54 J -24263793.04 -24263792.92 -24263792.75 0.0089 0.0074
 Neptune -71143-05-13 03:06 J -24263425.43 -24263425.37 -24263425.25 0.0089 0.0083
 Jupiter -71141-08-21 13:40 J -24262594.06 -24262593.93 -24262593.79 0.0505 0.0404
 Jupiter -71134-03-11 17:16 J -24260200.98 -24260200.78 -24260200.58 0.0524 0.0233
 Saturn -71134-11-23 21:06 J -24259943.72 -24259943.62 -24259943.50 0.0273 0.0244
 Saturn -71133-12-06 03:35 J -24259565.59 -24259565.35 -24259565.10 0.0278 0.0097
 Saturn -71132-12-19 18:13 J -24259186.99 -24259186.74 -24259186.49 0.0283 0.0068
 Saturn -71130-01-02 21:35 J -24258807.72 -24258807.60 -24258807.46 0.0287 0.0245
 Jupiter -71129-08-26 06:13 J -24258206.47 -24258206.24 -24258206.02 0.0504 0.0170
 Jupiter -71122-03-16 20:37 J -24255812.74 -24255812.64 -24255812.51 0.0525 0.0458
 Uranus -71121-01-14 16:18 J -24255508.98 -24255508.82 -24255508.62 0.0134 0.0095
 Uranus -71120-01-18 03:21 J -24255139.62 -24255139.36 -24255139.10 0.0134 0.0033
 Saturn -71120-05-27 10:47 J -24255010.17 -24255010.05 -24255009.92 0.0288 0.0241
 Uranus -71119-01-22 15:21 J -24254770.10 -24254769.86 -24254769.61 0.0133 0.0029
 Saturn -71119-06-09 10:47 J -24254632.29 -24254632.05 -24254631.81 0.0283 0.0067
 Uranus -71118-01-27 01:11 J -24254400.66 -24254400.45 -24254400.22 0.0133 0.0076
 Saturn -71118-06-21 19:25 J -24254254.91 -24254254.69 -24254254.46 0.0278 0.0107
 Saturn -71117-07-02 22:33 J -24253877.63 -24253877.56 -24253877.50 0.0274 0.0263
 Jupiter -71117-08-30 11:59 J -24253819.23 -24253819.00 -24253818.77 0.0502 0.0016
 Mars -71117-12-15 18:57 J -24253711.90 -24253711.71 -24253711.52 0.1669 0.0161
 Pluto -71108-03-29 21:49 J -24250685.84 -24250685.59 -24250685.32 0.0080 0.0004
 Jupiter -71105-09-04 06:42 J -24249431.43 -24249431.22 -24249431.01 0.0501 0.0209
 Saturn -71104-11-30 11:59 J -24248979.19 -24248979.00 -24248978.80 0.0276 0.0166
 Saturn -71103-12-14 06:28 J -24248600.47 -24248600.23 -24248599.98 0.0280 0.0010
 Saturn -71102-12-28 08:52 J -24248221.32 -24248221.13 -24248220.91 0.0285 0.0164

Jupiter -71093-09-08 08:52 J -24245044.22 -24245044.13 -24245044.02 0.0501 0.0453
 Saturn -71090-06-04 03:35 J -24244045.55 -24244045.35 -24244045.14 0.0286 0.0140
 Saturn -71089-06-16 02:09 J -24243667.64 -24243667.41 -24243667.18 0.0281 0.0036
 Saturn -71088-06-28 12:28 J -24243290.13 -24243289.98 -24243289.81 0.0276 0.0202
 Neptune -71080-09-27 23:30 J -24240276.64 -24240276.52 -24240276.35 0.0089 0.0073
 Neptune -71079-09-30 05:45 J -24239909.39 -24239909.26 -24239909.10 0.0089 0.0073
 Neptune -71078-10-03 01:11 J -24239541.64 -24239541.45 -24239541.22 0.0089 0.0055
 Uranus -71077-07-12 02:09 J -24239258.58 -24239258.41 -24239258.21 0.0145 0.0096
 Neptune -71077-10-04 09:21 J -24239174.29 -24239174.11 -24239173.89 0.0089 0.0055
 Uranus -71076-07-17 05:45 J -24238888.51 -24238888.26 -24238888.02 0.0145 0.0011
 Neptune -71076-10-07 02:09 J -24238806.64 -24238806.41 -24238806.15 0.0089 0.0037
 Jupiter -71075-02-28 19:40 J -24238661.87 -24238661.68 -24238661.47 0.0522 0.0291
 Uranus -71075-07-21 19:54 J -24238518.90 -24238518.67 -24238518.42 0.0146 0.0047
 Neptune -71075-10-09 14:37 J -24238439.11 -24238438.89 -24238438.66 0.0089 0.0037
 Saturn -71075-11-25 08:52 J -24238392.26 -24238392.13 -24238391.97 0.0274 0.0226
 Uranus -71074-07-27 00:28 J -24238148.57 -24238148.48 -24238148.36 0.0146 0.0132
 Neptune -71074-10-12 02:09 J -24238071.66 -24238071.41 -24238071.13 0.0089 0.0020
 Saturn -71074-12-08 14:09 J -24238014.16 -24238013.91 -24238013.66 0.0278 0.0077
 Neptune -71073-10-13 18:42 J -24237703.96 -24237703.72 -24237703.46 0.0089 0.0020
 Saturn -71073-12-21 08:52 J -24237635.37 -24237635.13 -24237634.89 0.0283 0.0091
 Neptune -71072-10-16 02:52 J -24237336.64 -24237336.38 -24237336.11 0.0089 0.0001
 Saturn -71071-01-04 17:45 J -24237255.83 -24237255.76 -24237255.67 0.0288 0.0271
 Neptune -71071-10-18 23:01 J -24236968.80 -24236968.54 -24236968.28 0.0089 0.0002
 Neptune -71070-10-21 05:16 J -24236601.52 -24236601.28 -24236601.01 0.0089 0.0018
 Neptune -71069-10-23 01:54 J -24236233.67 -24236233.42 -24236233.15 0.0089 0.0017
 Neptune -71068-10-25 10:04 J -24235866.31 -24235866.08 -24235865.84 0.0089 0.0035
 Neptune -71067-10-28 04:04 J -24235498.56 -24235498.33 -24235498.07 0.0089 0.0036
 Neptune -71066-10-30 15:49 J -24235131.02 -24235130.84 -24235130.62 0.0089 0.0054
 Neptune -71065-11-01 05:16 J -24234763.48 -24234763.28 -24234763.05 0.0089 0.0054
 Neptune -71064-11-03 21:35 J -24234395.74 -24234395.60 -24234395.44 0.0089 0.0071

Jupiter -71063-03-05 17:30 J -24234273.99 -24234273.77 -24234273.54 0.0523 0.0022
 Neptune -71063-11-06 06:28 J -24234028.37 -24234028.23 -24234028.05 0.0089 0.0071
 Neptune -71062-11-09 02:23 J -24233660.42 -24233660.40 -24233660.35 0.0089 0.0088
 Saturn -71061-05-29 03:35 J -24233458.50 -24233458.35 -24233458.18 0.0287 0.0217
 Neptune -71061-11-10 09:35 J -24233293.12 -24233293.10 -24233293.07 0.0089 0.0088
 Saturn -71060-06-10 22:04 J -24233080.82 -24233080.58 -24233080.33 0.0282 0.0043
 Saturn -71059-06-23 07:25 J -24232703.39 -24232703.19 -24232702.97 0.0278 0.0130
 Jupiter -71058-08-21 20:23 J -24232278.78 -24232278.65 -24232278.51 0.0505 0.0415
 Jupiter -71051-03-10 20:23 J -24229885.87 -24229885.65 -24229885.43 0.0524 0.0193
 Jupiter -71046-08-26 02:23 J -24227891.61 -24227891.40 -24227891.18 0.0503 0.0193
 Saturn -71045-12-02 04:04 J -24227427.53 -24227427.33 -24227427.11 0.0276 0.0149
 Saturn -71044-12-15 21:21 J -24227048.86 -24227048.61 -24227048.36 0.0281 0.0013
 Saturn -71043-12-29 20:52 J -24226669.82 -24226669.63 -24226669.43 0.0286 0.0188
 Jupiter -71039-03-15 12:13 J -24225498.12 -24225497.99 -24225497.86 0.0525 0.0430
 Mars -71038-12-18 23:16 J -24224854.67 -24224854.53 -24224854.39 0.1674 0.1041
 Uranus -71037-01-15 05:59 J -24224827.43 -24224827.25 -24224827.04 0.0134 0.0084
 Uranus -71036-01-18 15:35 J -24224458.10 -24224457.85 -24224457.58 0.0134 0.0028
 Uranus -71035-01-23 04:33 J -24224088.56 -24224088.31 -24224088.07 0.0133 0.0027
 Uranus -71034-01-27 12:28 J -24223719.15 -24223718.98 -24223718.77 0.0133 0.0093
 Jupiter -71034-08-30 18:42 J -24223503.96 -24223503.72 -24223503.49 0.0503 0.0017
 Saturn -71032-05-23 13:54 J -24222871.93 -24222871.92 -24222871.90 0.0290 0.0289
 Saturn -71031-06-05 21:06 J -24222493.83 -24222493.62 -24222493.41 0.0285 0.0115
 Saturn -71030-06-18 16:47 J -24222116.04 -24222115.80 -24222115.57 0.0280 0.0058
 Saturn -71029-06-29 20:23 J -24221738.79 -24221738.65 -24221738.50 0.0276 0.0223
 Jupiter -71022-09-03 23:30 J -24219116.74 -24219116.52 -24219116.30 0.0502 0.0186
 Mars -71016-06-13 10:18 J -24217007.22 -24217007.07 -24217006.92 0.1888 0.1122
 Saturn -71016-11-26 13:54 J -24216841.08 -24216840.92 -24216840.76 0.0274 0.0212
 Saturn -71015-12-09 23:16 J -24216462.77 -24216462.53 -24216462.28 0.0279 0.0058
 Saturn -71014-12-23 23:30 J -24216083.74 -24216083.52 -24216083.30 0.0284 0.0115
 Jupiter -71010-09-08 18:13 J -24214728.84 -24214728.74 -24214728.63 0.0501 0.0445

Saturn -71002-05-31 11:59 J -24211907.17 -24211907.00 -24211906.81 0.0287 0.0193

Saturn -71001-06-12 06:57 J -24211529.45 -24211529.21 -24211528.97 0.0282 0.0020

71ST MILLENNIUM BCE

This is a list of transits of Moon in the 71st millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-71000-06-24 20:37 J	-24211151.83	-24211151.64	-24211151.44	0.0277	0.0151		
Neptune	-70999-03-30 03:06 J	-24210873.40	-24210873.37	-24210873.29	0.0088	0.0087		
Neptune	-70998-04-01 15:49 J	-24210505.85	-24210505.84	-24210505.78	0.0089	0.0088		
Neptune	-70997-04-02 22:04 J	-24210138.74	-24210138.58	-24210138.42	0.0089	0.0070		
Neptune	-70996-04-05 14:09 J	-24209771.04	-24209770.91	-24209770.74	0.0089	0.0071		
Neptune	-70995-04-07 17:45 J	-24209403.95	-24209403.76	-24209403.55	0.0089	0.0053		
Neptune	-70994-04-10 10:18 J	-24209036.25	-24209036.07	-24209035.84	0.0089	0.0054		
Neptune	-70993-04-11 14:52 J	-24208669.08	-24208668.88	-24208668.63	0.0089	0.0037		
Uranus	-70993-07-12 14:52 J	-24208577.07	-24208576.88	-24208576.66	0.0145	0.0081		
Jupiter	-70992-02-27 19:40 J	-24208346.86	-24208346.68	-24208346.50	0.0522	0.0317		
Neptune	-70992-04-14 05:16 J	-24208301.50	-24208301.28	-24208301.02	0.0089	0.0037		
Uranus	-70992-07-17 18:42 J	-24208206.96	-24208206.72	-24208206.47	0.0145	0.0021		
Neptune	-70991-04-16 14:09 J	-24207934.15	-24207933.91	-24207933.67	0.0089	0.0019		
Uranus	-70991-07-22 09:21 J	-24207837.33	-24207837.11	-24207836.89	0.0146	0.0067		
Neptune	-70990-04-18 23:16 J	-24207566.78	-24207566.53	-24207566.27	0.0089	0.0019		
Uranus	-70990-07-27 14:52 J	-24207466.99	-24207466.88	-24207466.76	0.0146	0.0128		
Neptune	-70989-04-20 12:28 J	-24207199.23	-24207198.98	-24207198.73	0.0089	0.0001		

Neptune -70988-04-22 17:01 J -24206832.05 -24206831.79 -24206831.53 0.0089 0.0002
 Neptune -70987-04-25 08:52 J -24206464.36 -24206464.13 -24206463.87 0.0089 0.0017
 Neptune -70986-04-27 11:45 J -24206097.25 -24206097.01 -24206096.75 0.0089 0.0016
 Saturn -70986-12-04 12:42 J -24205876.18 -24205875.97 -24205875.74 0.0277 0.0132
 Neptune -70985-04-29 03:35 J -24205729.57 -24205729.35 -24205729.09 0.0089 0.0034
 Saturn -70985-12-17 02:23 J -24205497.66 -24205497.40 -24205497.14 0.0281 0.0033
 Neptune -70984-05-01 08:23 J -24205362.36 -24205362.15 -24205361.91 0.0089 0.0034
 Saturn -70984-12-31 02:09 J -24205118.57 -24205118.41 -24205118.23 0.0286 0.0210
 Neptune -70983-05-03 20:52 J -24204994.83 -24204994.63 -24204994.40 0.0089 0.0051
 Neptune -70982-05-06 05:59 J -24204627.43 -24204627.25 -24204627.03 0.0089 0.0051
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 Jupiter -70980-03-04 23:16 J -24203958.76 -24203958.53 -24203958.29 0.0523 0.0044
 Neptune -70980-05-10 03:06 J -24203892.51 -24203892.37 -24203892.19 0.0089 0.0067
 Neptune -70979-05-12 06:28 J -24203525.28 -24203525.23 -24203525.12 0.0089 0.0084
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 Jupiter -70975-08-20 14:37 J -24201963.99 -24201963.89 -24201963.78 0.0505 0.0444
 Saturn -70973-05-25 05:01 J -24201320.37 -24201320.29 -24201320.19 0.0290 0.0266
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 Saturn -70970-07-02 01:25 J -24200187.54 -24200187.44 -24200187.33 0.0275 0.0245
 Jupiter -70968-03-09 16:33 J -24199571.03 -24199570.81 -24199570.59 0.0523 0.0168
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 Jupiter -70956-03-14 20:37 J -24195182.78 -24195182.64 -24195182.49 0.0524 0.0404
 Saturn -70956-12-11 08:37 J -24194911.38 -24194911.14 -24194910.90 0.0279 0.0040
 Saturn -70955-12-25 09:49 J -24194532.30 -24194532.09 -24194531.87 0.0284 0.0133
 Uranus -70953-01-15 19:40 J -24194145.86 -24194145.68 -24194145.47 0.0134 0.0085
 Uranus -70952-01-19 04:33 J -24193776.57 -24193776.31 -24193776.04 0.0134 0.0023
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Uranus -70950-01-28 02:09 J -24193037.60 -24193037.41 -24193037.20 0.0133 0.0087
 Pluto -70949-09-23 11:45 J -24192433.21 -24192433.01 -24192432.78 0.0064 0.0034
 Pluto -70948-09-24 19:25 J -24192066.84 -24192066.69 -24192066.52 0.0065 0.0051
 Saturn -70943-06-01 18:13 J -24190355.92 -24190355.74 -24190355.54 0.0287 0.0172
 Saturn -70942-06-14 17:16 J -24189978.01 -24189977.78 -24189977.54 0.0282 0.0007
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 Mars -70937-06-16 05:45 J -24188149.43 -24188149.26 -24188149.08 0.1881 0.0076
 Saturn -70928-11-22 09:21 J -24184703.17 -24184703.11 -24184703.03 0.0272 0.0261
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 Saturn -70927-12-05 11:30 J -24184325.25 -24184325.02 -24184324.78 0.0277 0.0116
 Saturn -70926-12-19 01:54 J -24183946.67 -24183946.42 -24183946.17 0.0282 0.0050
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 Neptune -70913-10-03 17:01 J -24179274.00 -24179273.79 -24179273.56 0.0089 0.0052
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 Neptune -70912-10-06 06:13 J -24178906.45 -24178906.24 -24178906.00 0.0089 0.0042
 Mars -70912-12-13 16:18 J -24178837.98 -24178837.82 -24178837.66 0.1657 0.0975
 Saturn -70911-07-03 06:42 J -24178636.28 -24178636.22 -24178636.15 0.0275 0.0263
 Neptune -70911-10-08 17:01 J -24178539.03 -24178538.79 -24178538.53 0.0089 0.0035
 Neptune -70910-10-11 11:01 J -24178171.28 -24178171.04 -24178170.78 0.0089 0.0024
 Jupiter -70909-02-28 06:13 J -24178031.43 -24178031.24 -24178031.04 0.0521 0.0317
 Uranus -70909-07-13 04:33 J -24177895.49 -24177895.31 -24177895.10 0.0145 0.0086
 Neptune -70909-10-12 18:28 J -24177803.99 -24177803.73 -24177803.47 0.0089 0.0016
 Uranus -70908-07-18 08:09 J -24177525.41 -24177525.16 -24177524.91 0.0145 0.0001

Neptune -70908-10-15 14:52 J -24177436.14 -24177435.88 -24177435.62 0.0089 0.0006
 Uranus -70907-07-22 22:33 J -24177155.78 -24177155.56 -24177155.32 0.0146 0.0058
 Neptune -70907-10-17 21:06 J -24177068.87 -24177068.62 -24177068.36 0.0089 0.0002
 Uranus -70906-07-28 04:04 J -24176785.35 -24176785.33 -24176785.28 0.0146 0.0144
 Neptune -70906-10-20 16:47 J -24176701.05 -24176700.80 -24176700.52 0.0089 0.0011
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 Neptune -70900-11-02 20:37 J -24174495.80 -24174495.64 -24174495.42 0.0089 0.0063
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 Neptune -70898-11-07 23:59 J -24173760.59 -24173760.50 -24173760.36 0.0088 0.0080
 Saturn -70898-11-29 23:01 J -24173738.72 -24173738.54 -24173738.36 0.0275 0.0184
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 Saturn -70897-12-12 13:25 J -24173360.19 -24173359.94 -24173359.69 0.0279 0.0026
 Saturn -70896-12-26 11:16 J -24172981.24 -24172981.03 -24172980.81 0.0284 0.0150
 Jupiter -70892-08-20 05:30 J -24171648.37 -24171648.27 -24171648.17 0.0506 0.0455
 Jupiter -70885-03-09 02:52 J -24169255.60 -24169255.38 -24169255.15 0.0523 0.0141
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 Saturn -70883-06-16 01:40 J -24168426.67 -24168426.43 -24168426.20 0.0281 0.0026
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 Jupiter -70873-03-13 18:28 J -24164867.88 -24164867.73 -24164867.56 0.0524 0.0387
 Uranus -70869-01-16 10:47 J -24163464.25 -24163464.05 -24163463.83 0.0134 0.0074
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 Uranus -70868-01-19 18:13 J -24163095.00 -24163094.74 -24163094.47 0.0134 0.0018
 Jupiter -70868-08-29 08:23 J -24162873.37 -24162873.15 -24162872.92 0.0503 0.0053
 Saturn -70868-12-06 07:11 J -24162774.43 -24162774.20 -24162773.96 0.0277 0.0103
 Uranus -70867-01-24 08:37 J -24162725.38 -24162725.14 -24162724.89 0.0133 0.0038

Saturn -70867-12-20 02:09 J -24162395.64 -24162395.41 -24162395.17 0.0282 0.0068
 Uranus -70866-01-28 14:37 J -24162356.03 -24162355.89 -24162355.70 0.0133 0.0104
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 Jupiter -70856-09-02 14:09 J -24158486.14 -24158485.91 -24158485.68 0.0503 0.0163
 Saturn -70855-05-28 13:25 J -24158218.09 -24158217.94 -24158217.79 0.0289 0.0228
 Saturn -70854-06-10 11:01 J -24157840.27 -24157840.04 -24157839.79 0.0284 0.0048
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 Saturn -70839-11-30 23:16 J -24152187.72 -24152187.53 -24152187.33 0.0275 0.0171
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 Mars -70833-12-16 08:52 J -24149980.35 -24149980.13 -24149979.92 0.1662 0.0033
 Neptune -70832-04-04 15:06 J -24149871.02 -24149870.87 -24149870.69 0.0089 0.0067
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 Neptune -70828-04-13 11:30 J -24148401.24 -24148401.02 -24148400.78 0.0089 0.0033
 Neptune -70827-04-15 19:40 J -24148033.92 -24148033.68 -24148033.41 0.0089 0.0023
 Jupiter -70826-02-27 05:16 J -24147716.45 -24147716.28 -24147716.09 0.0521 0.0333
 Neptune -70826-04-18 10:04 J -24147666.31 -24147666.08 -24147665.82 0.0089 0.0017
 Neptune -70825-04-19 14:37 J -24147299.14 -24147298.89 -24147298.62 0.0089 0.0007
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 Uranus -70824-07-18 16:47 J -24146844.05 -24146843.80 -24146843.55 0.0145 0.0013

Neptune -70823-04-24 10:47 J -24146564.29 -24146564.05 -24146563.80 0.0089 0.0011
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 Neptune -70815-05-11 22:18 J -24143624.68 -24143624.57 -24143624.43 0.0089 0.0077
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 Uranus -70786-01-12 06:13 J -24133152.32 -24133152.24 -24133152.13 0.0135 0.0126
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 Uranus -70784-01-20 07:25 J -24132413.46 -24132413.19 -24132412.93 0.0134 0.0012
 Uranus -70783-01-24 22:47 J -24132043.78 -24132043.55 -24132043.32 0.0133 0.0050

Uranus -70782-01-29 04:18 J -24131674.48 -24131674.32 -24131674.12 0.0133 0.0099
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 Jupiter -70773-09-02 01:11 J -24128170.66 -24128170.45 -24128170.23 0.0503 0.0162
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 Saturn -70765-06-17 17:30 J -24125325.01 -24125324.77 -24125324.53 0.0281 0.0067
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 Mars -70754-12-20 02:09 J -24121122.53 -24121122.41 -24121122.30 0.1668 0.1329
 Neptune -70753-09-23 14:52 J -24120843.97 -24120843.88 -24120843.75 0.0089 0.0080
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 Saturn -70747-01-04 23:01 J -24118914.56 -24118914.54 -24118914.49 0.0287 0.0284
 Neptune -70747-10-08 02:37 J -24118638.61 -24118638.39 -24118638.13 0.0089 0.0030
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Neptune -70740-10-23 22:04 J -24116065.82 -24116065.58 -24116065.33 0.0089 0.0023
 Uranus -70739-07-23 16:18 J -24115793.03 -24115792.82 -24115792.58 0.0146 0.0063
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 Saturn -70737-05-30 02:37 J -24115116.55 -24115116.39 -24115116.21 0.0289 0.0200
 Neptune -70737-10-30 10:04 J -24114963.28 -24114963.08 -24114962.87 0.0089 0.0057
 Saturn -70736-06-12 09:35 J -24114738.33 -24114738.10 -24114737.87 0.0284 0.0012
 Neptune -70736-11-02 06:42 J -24114595.41 -24114595.22 -24114595.00 0.0089 0.0057
 Saturn -70735-06-25 02:09 J -24114360.60 -24114360.41 -24114360.21 0.0279 0.0164
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 Neptune -70734-11-07 09:06 J -24113860.24 -24113860.12 -24113859.94 0.0088 0.0074
 Mars -70732-06-12 12:42 J -24113277.03 -24113276.97 -24113276.91 0.1900 0.1816
 Jupiter -70731-03-03 19:25 J -24113012.93 -24113012.69 -24113012.46 0.0522 0.0088
 Jupiter -70726-08-19 22:33 J -24111017.62 -24111017.56 -24111017.49 0.0506 0.0480
 Saturn -70721-12-02 05:59 J -24109086.46 -24109086.25 -24109086.03 0.0274 0.0148
 Saturn -70720-12-15 18:13 J -24108707.99 -24108707.74 -24108707.50 0.0279 0.0022
 Jupiter -70719-03-08 22:04 J -24108624.79 -24108624.58 -24108624.36 0.0522 0.0124
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 Uranus -70618-01-13 05:01 J -24071789.39 -24071789.29 -24071789.14 0.0135 0.0118
 Saturn -70618-06-14 18:42 J -24071636.97 -24071636.72 -24071636.47 0.0285 0.0019
 Uranus -70617-01-18 01:11 J -24071419.67 -24071419.45 -24071419.23 0.0134 0.0067
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 Uranus -70614-01-30 04:33 J -24070311.44 -24070311.31 -24070311.15 0.0133 0.0110
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 Neptune -70589-09-23 00:28 J -24060943.58 -24060943.48 -24060943.36 0.0089 0.0080
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 Neptune -70586-09-30 13:54 J -24059841.08 -24059840.92 -24059840.72 0.0089 0.0062
 Neptune -70585-10-01 21:49 J -24059473.80 -24059473.59 -24059473.35 0.0089 0.0048
 Neptune -70584-10-04 17:16 J -24059105.99 -24059105.78 -24059105.54 0.0089 0.0045
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 Neptune -70579-10-16 07:54 J -24057268.43 -24057268.17 -24057267.92 0.0089 0.0002
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Saturn -70574-11-29 07:54 J -24055398.35 -24055398.17 -24055397.99 0.0272 0.0191
 Uranus -70573-07-14 23:01 J -24055169.73 -24055169.54 -24055169.31 0.0145 0.0073
 Neptune -70573-10-29 19:54 J -24055062.87 -24055062.67 -24055062.44 0.0089 0.0051
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 Neptune -70570-11-06 08:52 J -24053960.26 -24053960.13 -24053959.99 0.0088 0.0075
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 Jupiter -70465-08-22 11:59 J -24015684.17 -24015684.00 -24015683.82 0.0506 0.0331
 Jupiter -70458-03-12 15:06 J -24013291.03 -24013290.87 -24013290.70 0.0523 0.0368
 Saturn -70456-12-01 22:33 J -24012295.76 -24012295.56 -24012295.36 0.0273 0.0156
 Saturn -70455-12-15 07:11 J -24011917.45 -24011917.20 -24011916.95 0.0277 0.0015
 Saturn -70454-12-28 22:47 J -24011538.73 -24011538.55 -24011538.36 0.0282 0.0195
 Jupiter -70453-08-27 08:37 J -24011296.36 -24011296.14 -24011295.91 0.0504 0.0111
 Pluto -70453-09-27 04:47 J -24011265.54 -24011265.30 -24011265.05 0.0065 0.0017
 Uranus -70450-01-14 09:35 J -24010426.24 -24010426.10 -24010425.92 0.0135 0.0107
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 Saturn -70441-06-17 19:11 J -24006983.92 -24006983.70 -24006983.46 0.0284 0.0071
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 Saturn -70440-06-30 09:49 J -24006606.22 -24006606.09 -24006605.96 0.0279 0.0233
 Jupiter -70429-09-05 04:18 J -24002521.46 -24002521.32 -24002521.17 0.0502 0.0386
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 Saturn -70325-05-26 04:33 J -23964637.40 -23964637.31 -23964637.21 0.0292 0.0266

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 Neptune -70322-05-11 22:18 J -23963556.70 -23963556.57 -23963556.40 0.0089 0.0072
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 Uranus -70322-07-13 03:21 J -23963494.49 -23963494.36 -23963494.22 0.0144 0.0121
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 Jupiter -70304-03-06 00:57 J -23957048.69 -23957048.46 -23957048.23 0.0522 0.0026
 Jupiter -70299-08-21 16:18 J -23955053.97 -23955053.82 -23955053.67 0.0506 0.0391
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 Mars -70265-12-18 06:57 J -23942516.38 -23942516.21 -23942516.03 0.1650 0.0501
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 Jupiter -70192-08-29 19:40 J -23915963.90 -23915963.68 -23915963.46 0.0504 0.0081

Saturn -70191-12-04 05:45 J -23915502.46 -23915502.26 -23915502.03 0.0273 0.0144
 Saturn -70190-12-17 09:49 J -23915124.34 -23915124.09 -23915123.82 0.0277 0.0031
 Saturn -70189-12-30 00:13 J -23914745.65 -23914745.49 -23914745.32 0.0282 0.0216
 Jupiter -70180-09-03 08:09 J -23911576.34 -23911576.16 -23911575.96 0.0503 0.0297
 Neptune -70179-03-26 05:59 J -23911372.31 -23911372.25 -23911372.12 0.0088 0.0083
 Neptune -70178-03-28 16:18 J -23911004.90 -23911004.82 -23911004.71 0.0088 0.0082
 Saturn -70178-05-25 07:40 J -23910947.20 -23910947.18 -23910947.14 0.0294 0.0291
 Neptune -70177-03-30 01:54 J -23910637.59 -23910637.42 -23910637.25 0.0089 0.0068
 Saturn -70177-06-06 22:04 J -23910568.80 -23910568.58 -23910568.35 0.0289 0.0096
 Neptune -70176-04-01 15:49 J -23910269.98 -23910269.84 -23910269.66 0.0089 0.0067
 Saturn -70176-06-19 20:52 J -23910190.86 -23910190.63 -23910190.39 0.0284 0.0087
 Neptune -70175-04-03 20:52 J -23909902.81 -23909902.63 -23909902.40 0.0089 0.0053
 Saturn -70175-07-02 06:28 J -23909813.33 -23909813.23 -23909813.11 0.0279 0.0248
 Neptune -70174-04-06 14:23 J -23909535.09 -23909534.90 -23909534.68 0.0089 0.0051
 Neptune -70173-04-07 18:13 J -23909167.96 -23909167.74 -23909167.50 0.0089 0.0038
 Neptune -70172-04-10 11:16 J -23908800.26 -23908800.03 -23908799.78 0.0089 0.0036
 Neptune -70171-04-12 16:47 J -23908433.02 -23908432.80 -23908432.54 0.0089 0.0024
 Neptune -70170-04-15 06:42 J -23908065.48 -23908065.22 -23908064.96 0.0089 0.0020
 Neptune -70169-04-16 16:33 J -23907698.05 -23907697.81 -23907697.56 0.0089 0.0007
 Neptune -70168-04-19 00:42 J -23907330.73 -23907330.47 -23907330.21 0.0089 0.0004
 Jupiter -70168-09-07 13:25 J -23907189.00 -23907188.94 -23907188.87 0.0502 0.0479
 Neptune -70167-04-21 14:52 J -23906963.12 -23906962.88 -23906962.63 0.0089 0.0008
 Neptune -70166-04-23 18:42 J -23906595.97 -23906595.72 -23906595.46 0.0089 0.0010
 Neptune -70165-04-25 11:30 J -23906228.26 -23906228.02 -23906227.77 0.0089 0.0023
 Neptune -70164-04-27 14:37 J -23905861.12 -23905860.89 -23905860.64 0.0089 0.0027
 Neptune -70163-04-30 06:13 J -23905493.46 -23905493.24 -23905492.99 0.0089 0.0039
 Jupiter -70162-02-22 20:52 J -23905194.67 -23905194.63 -23905194.57 0.0519 0.0506
 Neptune -70162-05-02 11:59 J -23905126.20 -23905126.00 -23905125.77 0.0089 0.0043
 Saturn -70162-11-28 19:40 J -23904915.83 -23904915.68 -23904915.52 0.0271 0.0211
 Neptune -70161-05-03 23:59 J -23904758.69 -23904758.50 -23904758.27 0.0089 0.0054

Saturn -70161-12-11 01:40 J -23904537.67 -23904537.43 -23904537.19 0.0276 0.0044
 Neptune -70160-05-06 10:47 J -23904391.22 -23904391.05 -23904390.85 0.0089 0.0057
 Saturn -70160-12-24 17:59 J -23904158.96 -23904158.75 -23904158.53 0.0280 0.0137
 Neptune -70159-05-08 17:59 J -23904023.92 -23904023.75 -23904023.59 0.0089 0.0068
 Neptune -70158-05-11 08:09 J -23903656.29 -23903656.16 -23903656.00 0.0089 0.0072
 Neptune -70157-05-12 11:16 J -23903289.09 -23903289.03 -23903288.92 0.0089 0.0084
 Neptune -70156-05-15 03:35 J -23902921.37 -23902921.35 -23902921.26 0.0089 0.0087
 Uranus -70154-07-13 23:45 J -23902131.66 -23902131.51 -23902131.35 0.0144 0.0113
 Uranus -70153-07-17 19:54 J -23901761.90 -23901761.67 -23901761.43 0.0144 0.0040
 Uranus -70152-07-22 15:49 J -23901392.09 -23901391.84 -23901391.58 0.0145 0.0028
 Uranus -70151-07-27 11:59 J -23901022.12 -23901022.00 -23901021.84 0.0146 0.0118
 Jupiter -70150-02-27 10:47 J -23900807.24 -23900807.05 -23900806.85 0.0520 0.0300
 Saturn -70148-06-01 06:28 J -23899982.41 -23899982.23 -23899982.03 0.0290 0.0181
 Saturn -70147-06-14 14:23 J -23899604.14 -23899603.90 -23899603.67 0.0285 0.0010
 Saturn -70146-06-27 12:28 J -23899226.14 -23899225.98 -23899225.79 0.0281 0.0182
 Mars -70139-12-14 04:47 J -23896499.42 -23896499.30 -23896499.18 0.1634 0.1271
 Jupiter -70138-03-04 13:25 J -23896419.17 -23896418.94 -23896418.71 0.0521 0.0044
 Jupiter -70133-08-19 22:18 J -23894423.68 -23894423.57 -23894423.46 0.0506 0.0448
 Saturn -70132-12-05 15:06 J -23893951.10 -23893950.87 -23893950.63 0.0273 0.0118
 Saturn -70131-12-18 20:52 J -23893572.88 -23893572.63 -23893572.38 0.0278 0.0056
 Saturn -70129-01-01 16:33 J -23893193.93 -23893193.81 -23893193.67 0.0283 0.0240
 Jupiter -70126-03-09 11:59 J -23892031.21 -23892031.00 -23892030.79 0.0522 0.0262
 Jupiter -70121-08-24 06:28 J -23890036.43 -23890036.23 -23890036.02 0.0505 0.0213
 Saturn -70119-05-27 03:06 J -23889395.46 -23889395.37 -23889395.26 0.0293 0.0265
 Saturn -70118-06-09 11:45 J -23889017.24 -23889017.01 -23889016.76 0.0288 0.0069
 Pluto -70117-04-04 23:16 J -23888716.77 -23888716.53 -23888716.27 0.0080 0.0022
 Saturn -70117-06-21 07:25 J -23888639.41 -23888639.19 -23888638.96 0.0283 0.0114
 Saturn -70116-07-03 20:37 J -23888261.69 -23888261.64 -23888261.60 0.0278 0.0272
 Uranus -70114-01-16 22:47 J -23887699.74 -23887699.55 -23887699.34 0.0135 0.0082
 Jupiter -70114-03-14 08:37 J -23887643.16 -23887643.14 -23887643.11 0.0523 0.0519

Uranus -70113-01-21 18:42 J -23887329.96 -23887329.72 -23887329.45 0.0134 0.0030
 Uranus -70112-01-24 23:59 J -23886960.74 -23886960.50 -23886960.25 0.0134 0.0038
 Uranus -70111-01-29 18:13 J -23886590.90 -23886590.74 -23886590.56 0.0134 0.0101
 Jupiter -70109-08-28 21:35 J -23885648.83 -23885648.60 -23885648.36 0.0505 0.0054
 Saturn -70103-11-30 10:33 J -23883364.23 -23883364.06 -23883363.88 0.0272 0.0189
 Saturn -70102-12-13 17:30 J -23882986.01 -23882985.77 -23882985.52 0.0276 0.0019
 Saturn -70101-12-26 06:57 J -23882607.41 -23882607.21 -23882606.99 0.0281 0.0162
 Neptune -70098-09-18 19:11 J -23881610.71 -23881610.70 -23881610.63 0.0089 0.0088
 Jupiter -70097-09-02 04:33 J -23881261.50 -23881261.31 -23881261.12 0.0504 0.0269
 Neptune -70097-09-20 13:40 J -23881243.02 -23881242.93 -23881242.78 0.0089 0.0078
 Neptune -70096-09-22 19:25 J -23880875.82 -23880875.69 -23880875.53 0.0089 0.0074
 Neptune -70095-09-25 14:52 J -23880508.05 -23880507.88 -23880507.67 0.0089 0.0062
 Neptune -70094-09-27 21:21 J -23880140.78 -23880140.61 -23880140.41 0.0089 0.0059
 Neptune -70093-09-29 14:37 J -23879773.10 -23879772.89 -23879772.65 0.0089 0.0046
 Neptune -70092-10-01 23:59 J -23879405.70 -23879405.50 -23879405.26 0.0089 0.0045
 Neptune -70091-10-04 12:57 J -23879038.20 -23879037.96 -23879037.70 0.0089 0.0032
 Neptune -70090-10-07 03:21 J -23878670.58 -23878670.36 -23878670.11 0.0089 0.0030
 Saturn -70089-06-03 00:28 J -23878430.67 -23878430.48 -23878430.28 0.0290 0.0157
 Neptune -70089-10-08 12:13 J -23878303.25 -23878302.99 -23878302.72 0.0089 0.0015
 Saturn -70088-06-16 08:52 J -23878052.36 -23878052.13 -23878051.90 0.0285 0.0035
 Neptune -70088-10-11 06:57 J -23877935.46 -23877935.21 -23877934.95 0.0089 0.0014
 Saturn -70087-06-29 02:37 J -23877674.55 -23877674.39 -23877674.22 0.0280 0.0204
 Neptune -70087-10-13 13:25 J -23877568.21 -23877567.94 -23877567.68 0.0089 0.0001
 Neptune -70086-10-16 09:35 J -23877200.36 -23877200.10 -23877199.84 0.0089 0.0002
 Mars -70085-06-15 07:11 J -23876957.34 -23876957.20 -23876957.06 0.1912 0.1194
 Jupiter -70085-09-07 01:25 J -23876873.53 -23876873.44 -23876873.35 0.0502 0.0457
 Neptune -70085-10-17 16:04 J -23876833.07 -23876832.83 -23876832.57 0.0089 0.0017
 Neptune -70084-10-20 10:33 J -23876465.31 -23876465.06 -23876464.78 0.0089 0.0018
 Neptune -70083-10-22 20:37 J -23876097.87 -23876097.64 -23876097.40 0.0089 0.0033
 Neptune -70082-10-25 10:18 J -23875730.30 -23875730.07 -23875729.80 0.0089 0.0034

Neptune -70081-10-27 00:57 J -23875362.66 -23875362.46 -23875362.24 0.0088 0.0049
 Neptune -70080-10-29 10:33 J -23874995.26 -23874995.06 -23874994.81 0.0088 0.0049
 Neptune -70079-11-01 05:59 J -23874627.42 -23874627.25 -23874627.07 0.0088 0.0064
 Neptune -70078-11-03 12:42 J -23874260.14 -23874259.97 -23874259.76 0.0088 0.0063
 Neptune -70077-11-05 09:06 J -23873892.21 -23873892.12 -23873891.98 0.0088 0.0080
 Neptune -70076-11-07 16:18 J -23873524.93 -23873524.82 -23873524.69 0.0088 0.0078
 Saturn -70074-11-25 01:54 J -23872777.48 -23872777.42 -23872777.33 0.0270 0.0257
 Saturn -70073-12-06 21:21 J -23872399.84 -23872399.61 -23872399.37 0.0274 0.0095
 Saturn -70072-12-20 08:23 J -23872021.38 -23872021.15 -23872020.91 0.0278 0.0082
 Saturn -70070-01-03 08:09 J -23871642.23 -23871642.16 -23871642.06 0.0283 0.0265
 Uranus -70070-07-14 12:42 J -23871450.11 -23871449.97 -23871449.79 0.0144 0.0113
 Uranus -70069-07-18 09:49 J -23871080.32 -23871080.09 -23871079.85 0.0144 0.0039
 Uranus -70068-07-23 04:33 J -23870710.55 -23870710.31 -23870710.06 0.0145 0.0044
 Jupiter -70067-02-26 16:47 J -23870491.97 -23870491.80 -23870491.62 0.0520 0.0332
 Uranus -70067-07-28 01:11 J -23870340.59 -23870340.45 -23870340.27 0.0145 0.0109
 Saturn -70060-05-28 15:21 J -23867843.99 -23867843.86 -23867843.71 0.0293 0.0240
 Mars -70060-12-16 14:09 J -23867642.11 -23867641.91 -23867641.70 0.1639 0.0051
 Saturn -70059-06-10 20:52 J -23867465.87 -23867465.63 -23867465.38 0.0288 0.0042
 Saturn -70058-06-23 19:11 J -23867087.90 -23867087.70 -23867087.49 0.0283 0.0139
 Jupiter -70055-03-03 15:06 J -23866104.11 -23866103.87 -23866103.63 0.0521 0.0061
 Jupiter -70050-08-19 21:06 J -23864108.67 -23864108.62 -23864108.55 0.0507 0.0485
 Saturn -70044-12-01 20:52 J -23861812.82 -23861812.63 -23861812.43 0.0272 0.0169
 Jupiter -70043-03-08 09:49 J -23861716.29 -23861716.09 -23861715.88 0.0521 0.0234
 Saturn -70043-12-14 23:59 J -23861434.76 -23861434.50 -23861434.24 0.0276 0.0005
 Saturn -70042-12-28 11:01 J -23861056.22 -23861056.04 -23861055.84 0.0281 0.0187
 Jupiter -70038-08-24 13:54 J -23859721.13 -23859720.92 -23859720.70 0.0506 0.0226
 Jupiter -70031-03-13 12:42 J -23857328.06 -23857327.97 -23857327.88 0.0523 0.0480
 Uranus -70030-01-17 11:59 J -23857018.18 -23857018.00 -23857017.81 0.0135 0.0090
 Saturn -70030-06-05 14:52 J -23856879.08 -23856878.88 -23856878.67 0.0290 0.0132
 Uranus -70029-01-22 07:54 J -23856648.43 -23856648.17 -23856647.91 0.0135 0.0016

Saturn -70029-06-17 18:57 J -23856500.94 -23856500.71 -23856500.47 0.0285 0.0058
 Uranus -70028-01-25 13:11 J -23856279.18 -23856278.95 -23856278.70 0.0134 0.0041
 Saturn -70028-06-30 07:25 J -23856123.33 -23856123.19 -23856123.04 0.0279 0.0223
 Uranus -70027-01-30 07:11 J -23855909.35 -23855909.20 -23855909.02 0.0134 0.0102
 Jupiter -70026-08-28 22:18 J -23855333.80 -23855333.57 -23855333.34 0.0505 0.0042
 Neptune -70016-03-22 21:49 J -23851839.59 -23851839.59 -23851839.56 0.0088 0.0088
 Neptune -70015-03-25 08:23 J -23851472.16 -23851472.15 -23851472.08 0.0088 0.0088
 Saturn -70015-11-26 03:06 J -23851226.48 -23851226.37 -23851226.25 0.0270 0.0240
 Neptune -70014-03-27 16:47 J -23851104.92 -23851104.80 -23851104.63 0.0088 0.0075
 Jupiter -70014-09-02 18:42 J -23850945.92 -23850945.72 -23850945.52 0.0504 0.0249
 Saturn -70014-12-09 04:33 J -23850848.55 -23850848.31 -23850848.08 0.0274 0.0076
 Neptune -70013-03-29 08:52 J -23850737.25 -23850737.13 -23850736.97 0.0089 0.0073
 Saturn -70013-12-21 18:42 J -23850469.95 -23850469.72 -23850469.49 0.0279 0.0105
 Neptune -70012-03-31 13:25 J -23850370.10 -23850369.94 -23850369.72 0.0089 0.0060
 Neptune -70011-04-03 07:11 J -23850002.37 -23850002.20 -23850001.99 0.0089 0.0059
 Neptune -70010-04-05 11:45 J -23849635.22 -23849635.01 -23849634.79 0.0089 0.0045
 Neptune -70009-04-07 04:18 J -23849267.55 -23849267.32 -23849267.09 0.0089 0.0044
 Neptune -70008-04-09 10:47 J -23848900.28 -23848900.05 -23848899.81 0.0089 0.0030
 Neptune -70007-04-11 22:33 J -23848532.80 -23848532.56 -23848532.29 0.0089 0.0029
 Neptune -70006-04-14 09:49 J -23848165.33 -23848165.09 -23848164.84 0.0089 0.0014
 Mars -70006-06-19 02:52 J -23848099.54 -23848099.38 -23848099.22 0.1905 0.0952
 Neptune -70005-04-15 17:16 J -23847798.03 -23847797.78 -23847797.52 0.0089 0.0013
 Neptune -70004-04-18 09:06 J -23847430.36 -23847430.12 -23847429.86 0.0089 0.0002
 Neptune -70003-04-20 12:57 J -23847063.21 -23847062.96 -23847062.70 0.0089 0.0002
 Neptune -70002-04-23 05:59 J -23846695.49 -23846695.25 -23846694.99 0.0089 0.0017
 Jupiter -70002-09-06 19:25 J -23846558.81 -23846558.69 -23846558.57 0.0503 0.0431
 Neptune -70001-04-24 09:49 J -23846328.33 -23846328.09 -23846327.84 0.0089 0.0017
 Saturn -70001-05-29 19:25 J -23846292.85 -23846292.69 -23846292.52 0.0292 0.0215

70TH MILLENNIUM BCE

This is a list of transits of Moon in the 70th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-70000-04-27 00:57 J	-23845960.68	-23845960.46	-23845960.20	0.0089	0.0032		
Saturn	-70000-06-12 04:33 J	-23845914.54	-23845914.31	-23845914.08	0.0287	0.0021		
Neptune	-69999-04-29 07:54 J	-23845593.39	-23845593.17	-23845592.93	0.0089	0.0032		
Saturn	-69999-06-25 06:13 J	-23845536.42	-23845536.24	-23845536.04	0.0282	0.0159		
Neptune	-69998-05-01 17:59 J	-23845225.95	-23845225.75	-23845225.50	0.0089	0.0046		
Neptune	-69997-05-03 05:59 J	-23844858.46	-23844858.25	-23844858.04	0.0089	0.0046		
Neptune	-69996-05-05 11:16 J	-23844491.19	-23844491.03	-23844490.82	0.0089	0.0061		
Neptune	-69995-05-08 03:06 J	-23844123.53	-23844123.37	-23844123.17	0.0089	0.0061		
Neptune	-69994-05-10 06:13 J	-23843756.34	-23843756.24	-23843756.08	0.0089	0.0076		
Neptune	-69993-05-11 23:01 J	-23843388.65	-23843388.54	-23843388.37	0.0089	0.0075		
Neptune	-69991-05-16 17:01 J	-23842653.80	-23842653.79	-23842653.72	0.0089	0.0088		
Uranus	-69986-07-15 02:52 J	-23840768.55	-23840768.38	-23840768.19	0.0144	0.0101		
Uranus	-69985-07-19 00:42 J	-23840398.70	-23840398.47	-23840398.23	0.0144	0.0028		
Saturn	-69985-12-02 21:49 J	-23840261.80	-23840261.59	-23840261.37	0.0272	0.0151		
Jupiter	-69984-02-25 18:13 J	-23840176.91	-23840176.74	-23840176.56	0.0519	0.0358		
Uranus	-69984-07-23 18:28 J	-23840028.97	-23840028.73	-23840028.48	0.0145	0.0041		
Saturn	-69984-12-15 22:04 J	-23839883.84	-23839883.58	-23839883.32	0.0277	0.0026		
Uranus	-69983-07-28 16:18 J	-23839658.91	-23839658.82	-23839658.70	0.0145	0.0131		
Saturn	-69983-12-29 12:42 J	-23839505.13	-23839504.97	-23839504.80	0.0282	0.0210		
Mars	-69981-12-19 06:57 J	-23838784.39	-23838784.21	-23838784.03	0.1644	0.0735		

Jupiter -69972-03-02 15:21 J -23835789.08 -23835788.86 -23835788.64 0.0520 0.0087
 Saturn -69971-06-06 22:04 J -23835327.81 -23835327.58 -23835327.36 0.0289 0.0110
 Saturn -69970-06-19 20:52 J -23834949.87 -23834949.63 -23834949.39 0.0284 0.0078
 Saturn -69969-07-01 10:04 J -23834572.20 -23834572.08 -23834571.96 0.0279 0.0242
 Jupiter -69967-08-19 09:21 J -23833793.16 -23833793.11 -23833793.05 0.0507 0.0493
 Jupiter -69960-03-07 17:30 J -23831400.99 -23831400.77 -23831400.55 0.0522 0.0213
 Pluto -69958-09-30 15:06 J -23830464.11 -23830463.87 -23830463.60 0.0065 0.0022
 Saturn -69956-11-27 05:16 J -23829675.42 -23829675.28 -23829675.15 0.0270 0.0223
 Jupiter -69955-08-23 17:30 J -23829405.98 -23829405.77 -23829405.57 0.0506 0.0231
 Saturn -69955-12-10 09:06 J -23829297.36 -23829297.12 -23829296.88 0.0274 0.0056
 Saturn -69954-12-23 20:23 J -23828918.88 -23828918.65 -23828918.42 0.0279 0.0125
 Jupiter -69948-03-12 12:28 J -23827013.09 -23827012.98 -23827012.87 0.0523 0.0460
 Uranus -69946-01-18 01:40 J -23826336.64 -23826336.43 -23826336.21 0.0135 0.0071
 Uranus -69945-01-22 20:52 J -23825966.89 -23825966.63 -23825966.36 0.0135 0.0018
 Uranus -69944-01-26 02:37 J -23825597.61 -23825597.39 -23825597.14 0.0134 0.0051
 Uranus -69943-01-30 20:52 J -23825227.76 -23825227.63 -23825227.49 0.0134 0.0113
 Jupiter -69943-08-28 09:06 J -23825018.35 -23825018.12 -23825017.89 0.0505 0.0020
 Saturn -69942-05-31 22:18 J -23824741.74 -23824741.57 -23824741.39 0.0292 0.0194
 Saturn -69941-06-13 11:01 J -23824363.27 -23824363.04 -23824362.81 0.0287 0.0003
 Saturn -69940-06-26 11:16 J -23823985.21 -23823985.03 -23823984.84 0.0282 0.0176
 Neptune -69935-09-15 11:16 J -23822078.06 -23822078.03 -23822077.95 0.0089 0.0087
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 Jupiter -69931-09-01 14:37 J -23820631.10 -23820630.89 -23820630.68 0.0504 0.0223
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Saturn -69926-12-04 15:21 J -23818711.07 -23818710.86 -23818710.62 0.0272 0.0133
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 Neptune -69829-05-10 21:49 J -23783488.69 -23783488.59 -23783488.42 0.0089 0.0074
 Neptune -69828-05-13 11:01 J -23783121.08 -23783121.04 -23783120.94 0.0089 0.0086
 Neptune -69827-05-15 19:40 J -23782753.69 -23782753.68 -23782753.61 0.0089 0.0088
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 Saturn -69823-06-16 04:47 J -23781261.55 -23781261.30 -23781261.05 0.0287 0.0032
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 Uranus -69817-07-20 11:01 J -23779035.28 -23779035.04 -23779034.80 0.0144 0.0012

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 Mars -69801-06-14 22:18 J -23773226.68 -23773226.57 -23773226.45 0.1921 0.1613
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 Neptune -69769-09-18 21:49 J -23761442.70 -23761442.59 -23761442.44 0.0089 0.0077
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 Neptune -69676-04-16 18:13 J -23727630.00 -23727629.74 -23727629.48 0.0089 0.0006
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 Neptune -69672-04-25 07:11 J -23726160.44 -23726160.20 -23726159.93 0.0089 0.0024
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 Mars -69650-12-14 04:47 J -23717892.39 -23717892.30 -23717892.21 0.1620 0.1443
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 Jupiter -69611-08-26 23:59 J -23703756.72 -23703756.50 -23703756.28 0.0506 0.0036
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Saturn -69571-12-24 06:13 J -23689027.44 -23689027.24 -23689027.01 0.0276 0.0132
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 Neptune -69178-04-28 03:21 J -23545724.57 -23545724.36 -23545724.11 0.0089 0.0043
 Neptune -69177-04-29 11:45 J -23545357.23 -23545357.01 -23545356.79 0.0089 0.0041

Neptune -69176-05-01 20:52 J -23544989.81 -23544989.63 -23544989.40 0.0089 0.0056
 Saturn -69176-06-06 07:11 J -23544954.40 -23544954.20 -23544953.98 0.0293 0.0143
 Neptune -69175-05-04 10:04 J -23544622.27 -23544622.08 -23544621.88 0.0089 0.0054
 Saturn -69175-06-19 14:52 J -23544576.13 -23544575.88 -23544575.64 0.0288 0.0041
 Neptune -69174-05-06 14:52 J -23544255.01 -23544254.88 -23544254.69 0.0089 0.0069
 Saturn -69174-07-02 11:59 J -23544198.15 -23544198.00 -23544197.83 0.0283 0.0209
 Neptune -69173-05-08 07:25 J -23543887.33 -23543887.19 -23543887.00 0.0089 0.0067
 Neptune -69172-05-10 10:33 J -23543520.14 -23543520.06 -23543519.93 0.0089 0.0081
 Jupiter -69172-09-01 13:25 J -23543406.12 -23543405.94 -23543405.76 0.0505 0.0297
 Neptune -69171-05-13 03:21 J -23543152.47 -23543152.36 -23543152.22 0.0089 0.0078
 Saturn -69161-11-27 22:33 J -23539300.69 -23539300.56 -23539300.40 0.0268 0.0214
 Saturn -69160-12-10 19:54 J -23538922.90 -23538922.67 -23538922.43 0.0271 0.0052
 Saturn -69159-12-24 00:28 J -23538544.71 -23538544.48 -23538544.25 0.0276 0.0117
 Mars -69154-06-17 13:40 J -23536908.07 -23536907.93 -23536907.80 0.1934 0.1344
 Saturn -69147-05-31 10:47 J -23534368.19 -23534368.05 -23534367.90 0.0295 0.0227
 Uranus -69147-07-16 08:09 J -23534322.26 -23534322.16 -23534322.05 0.0143 0.0130
 Saturn -69146-06-14 07:11 J -23533989.43 -23533989.20 -23533988.97 0.0291 0.0033
 Uranus -69146-07-20 18:42 J -23533952.95 -23533952.72 -23533952.48 0.0143 0.0044
 Saturn -69145-06-26 15:35 J -23533611.05 -23533610.85 -23533610.64 0.0286 0.0145
 Uranus -69145-07-24 19:40 J -23533582.92 -23533582.68 -23533582.43 0.0144 0.0030
 Uranus -69144-07-29 07:54 J -23533213.33 -23533213.17 -23533212.99 0.0144 0.0105
 Jupiter -69142-02-25 13:54 J -23532637.12 -23532636.92 -23532636.71 0.0518 0.0263
 Saturn -69131-12-05 11:01 J -23528336.26 -23528336.04 -23528335.80 0.0269 0.0123
 Jupiter -69130-03-02 03:35 J -23528249.59 -23528249.35 -23528249.11 0.0519 0.0037
 Saturn -69130-12-18 07:54 J -23527958.42 -23527958.17 -23527957.93 0.0274 0.0044
 Mars -69129-12-22 11:45 J -23527588.04 -23527588.01 -23527587.98 0.1628 0.1606
 Saturn -69129-12-30 19:25 J -23527579.83 -23527579.69 -23527579.53 0.0278 0.0215
 Pluto -69128-04-10 17:45 J -23527479.02 -23527478.76 -23527478.50 0.0080 0.0016
 Jupiter -69125-08-18 05:59 J -23526253.37 -23526253.25 -23526253.13 0.0509 0.0423
 Jupiter -69118-03-07 06:28 J -23523861.44 -23523861.23 -23523861.02 0.0520 0.0193

Saturn -69117-06-07 17:30 J -23523403.00 -23523402.77 -23523402.55 0.0293 0.0119
 Neptune -69117-09-06 21:35 J -23523311.60 -23523311.60 -23523311.58 0.0089 0.0089
 Saturn -69116-06-21 01:11 J -23523024.68 -23523024.45 -23523024.21 0.0288 0.0067
 Neptune -69116-09-09 08:52 J -23522944.18 -23522944.13 -23522944.06 0.0089 0.0086
 Saturn -69115-07-04 02:37 J -23522646.51 -23522646.39 -23522646.26 0.0282 0.0234
 Neptune -69115-09-11 18:13 J -23522576.84 -23522576.74 -23522576.59 0.0089 0.0078
 Neptune -69114-09-14 10:33 J -23522209.17 -23522209.06 -23522208.90 0.0089 0.0075
 Jupiter -69113-08-22 18:57 J -23521865.93 -23521865.71 -23521865.50 0.0507 0.0220
 Neptune -69113-09-15 16:18 J -23521841.97 -23521841.82 -23521841.62 0.0089 0.0066
 Neptune -69112-09-18 11:16 J -23521474.19 -23521474.03 -23521473.81 0.0089 0.0061
 Neptune -69111-09-20 16:33 J -23521106.99 -23521106.81 -23521106.58 0.0089 0.0053
 Neptune -69110-09-23 11:16 J -23520739.24 -23520739.03 -23520738.80 0.0089 0.0047
 Neptune -69109-09-24 18:13 J -23520371.95 -23520371.74 -23520371.50 0.0089 0.0041
 Neptune -69108-09-27 09:06 J -23520004.35 -23520004.12 -23520003.85 0.0089 0.0035
 Uranus -69107-01-18 16:33 J -23519890.97 -23519890.81 -23519890.62 0.0136 0.0101
 Neptune -69107-09-29 21:21 J -23519636.84 -23519636.61 -23519636.36 0.0089 0.0028
 Uranus -69106-01-23 11:45 J -23519521.25 -23519521.01 -23519520.75 0.0135 0.0021
 Jupiter -69106-03-12 02:23 J -23519473.49 -23519473.40 -23519473.31 0.0521 0.0484
 Neptune -69106-10-02 07:54 J -23519269.41 -23519269.17 -23519268.89 0.0089 0.0021
 Uranus -69105-01-27 21:49 J -23519151.84 -23519151.59 -23519151.32 0.0135 0.0034
 Neptune -69105-10-04 00:42 J -23518901.71 -23518901.47 -23518901.21 0.0089 0.0014
 Uranus -69104-01-31 13:54 J -23518782.05 -23518781.92 -23518781.77 0.0134 0.0110
 Neptune -69104-10-06 07:25 J -23518534.45 -23518534.19 -23518533.92 0.0089 0.0007
 Neptune -69103-10-09 02:52 J -23518166.63 -23518166.38 -23518166.12 0.0089 0.0002
 Neptune -69102-10-11 08:23 J -23517799.40 -23517799.15 -23517798.89 0.0089 0.0007
 Saturn -69102-11-30 09:06 J -23517749.28 -23517749.12 -23517748.94 0.0268 0.0193
 Jupiter -69101-08-27 05:45 J -23517478.48 -23517478.26 -23517478.03 0.0506 0.0005
 Neptune -69101-10-13 03:49 J -23517431.60 -23517431.34 -23517431.07 0.0089 0.0012
 Saturn -69101-12-12 04:04 J -23517371.59 -23517371.33 -23517371.08 0.0272 0.0030
 Neptune -69100-10-15 11:01 J -23517064.27 -23517064.04 -23517063.78 0.0089 0.0022

Saturn -69100-12-25 03:49 J -23516993.57 -23516993.34 -23516993.11 0.0276 0.0136
 Neptune -69099-10-18 03:21 J -23516696.61 -23516696.36 -23516696.09 0.0089 0.0026
 Neptune -69098-10-20 15:21 J -23516329.07 -23516328.86 -23516328.61 0.0089 0.0036
 Neptune -69097-10-22 03:06 J -23515961.59 -23515961.37 -23515961.11 0.0089 0.0039
 Neptune -69096-10-24 19:54 J -23515593.86 -23515593.67 -23515593.43 0.0089 0.0049
 Neptune -69095-10-27 03:35 J -23515226.54 -23515226.35 -23515226.11 0.0089 0.0052
 Neptune -69094-10-29 23:30 J -23514858.69 -23514858.52 -23514858.32 0.0089 0.0063
 Neptune -69093-10-31 05:30 J -23514491.43 -23514491.27 -23514491.07 0.0089 0.0065
 Neptune -69092-11-03 01:25 J -23514123.55 -23514123.44 -23514123.28 0.0089 0.0076
 Neptune -69091-11-05 08:37 J -23513756.24 -23513756.14 -23513755.98 0.0089 0.0077
 Neptune -69090-11-08 01:54 J -23513388.43 -23513388.42 -23513388.35 0.0089 0.0088
 Jupiter -69089-08-31 18:28 J -23513090.93 -23513090.73 -23513090.52 0.0505 0.0267
 Neptune -69089-11-09 13:40 J -23513020.93 -23513020.93 -23513020.89 0.0089 0.0088
 Saturn -69088-06-02 03:06 J -23512816.53 -23512816.37 -23512816.20 0.0295 0.0205
 Saturn -69087-06-15 21:49 J -23512437.83 -23512437.59 -23512437.35 0.0290 0.0008
 Saturn -69086-06-29 00:28 J -23512059.67 -23512059.48 -23512059.27 0.0285 0.0169
 Mars -69082-12-16 19:40 J -23510427.85 -23510427.68 -23510427.51 0.1612 0.0714
 Mars -69075-06-21 00:13 J -23508049.61 -23508049.49 -23508049.38 0.1927 0.1606
 Saturn -69073-11-24 02:52 J -23507162.43 -23507162.38 -23507162.32 0.0266 0.0259
 Saturn -69072-12-06 14:09 J -23506785.13 -23506784.91 -23506784.67 0.0269 0.0103
 Saturn -69071-12-19 16:18 J -23506407.06 -23506406.82 -23506406.59 0.0274 0.0062
 Saturn -69069-01-02 04:33 J -23506028.43 -23506028.31 -23506028.16 0.0279 0.0233
 Uranus -69063-07-16 15:35 J -23503640.98 -23503640.85 -23503640.68 0.0143 0.0116
 Uranus -69062-07-21 03:06 J -23503271.59 -23503271.37 -23503271.14 0.0143 0.0051
 Uranus -69061-07-25 03:35 J -23502901.59 -23502901.35 -23502901.10 0.0144 0.0032
 Uranus -69060-07-29 15:35 J -23502531.98 -23502531.85 -23502531.68 0.0144 0.0114
 Jupiter -69059-02-24 07:11 J -23502322.39 -23502322.20 -23502322.00 0.0517 0.0294
 Saturn -69059-05-27 03:49 J -23502230.35 -23502230.34 -23502230.33 0.0297 0.0296
 Saturn -69058-06-09 23:30 J -23501851.74 -23501851.52 -23501851.29 0.0292 0.0099
 Saturn -69057-06-22 11:30 J -23501473.24 -23501473.02 -23501472.80 0.0287 0.0089

Saturn -69056-07-05 14:23 J -23501094.99 -23501094.90 -23501094.79 0.0282 0.0254
 Jupiter -69047-03-01 10:18 J -23497934.30 -23497934.07 -23497933.85 0.0519 0.0070
 Saturn -69043-12-01 12:28 J -23496198.16 -23496197.98 -23496197.77 0.0268 0.0174
 Jupiter -69042-08-18 12:42 J -23495938.08 -23495937.97 -23495937.85 0.0509 0.0445
 Saturn -69042-12-14 02:37 J -23495820.65 -23495820.39 -23495820.13 0.0272 0.0014
 Saturn -69041-12-26 02:52 J -23495442.59 -23495442.38 -23495442.17 0.0276 0.0153
 Jupiter -69035-03-06 09:21 J -23493546.34 -23493546.11 -23493545.88 0.0520 0.0173
 Neptune -69033-03-15 20:23 J -23492805.71 -23492805.65 -23492805.53 0.0088 0.0084
 Neptune -69032-03-18 05:59 J -23492438.35 -23492438.25 -23492438.11 0.0088 0.0078
 Neptune -69031-03-20 17:45 J -23492070.91 -23492070.76 -23492070.59 0.0088 0.0071
 Neptune -69030-03-23 07:40 J -23491703.33 -23491703.18 -23491702.99 0.0088 0.0065
 Jupiter -69030-08-22 19:11 J -23491550.89 -23491550.70 -23491550.50 0.0508 0.0258
 Neptune -69029-03-24 14:09 J -23491336.08 -23491335.91 -23491335.68 0.0088 0.0059
 Saturn -69029-06-03 11:45 J -23491265.19 -23491265.01 -23491264.82 0.0295 0.0186
 Neptune -69028-03-27 07:54 J -23490968.37 -23490968.17 -23490967.96 0.0088 0.0053
 Saturn -69028-06-17 01:40 J -23490886.67 -23490886.43 -23490886.18 0.0290 0.0009
 Neptune -69027-03-29 11:45 J -23490601.20 -23490601.01 -23490600.77 0.0088 0.0047
 Saturn -69027-06-30 01:54 J -23490508.60 -23490508.42 -23490508.23 0.0285 0.0185
 Neptune -69026-04-01 05:59 J -23490233.47 -23490233.25 -23490233.01 0.0088 0.0041
 Neptune -69025-04-02 11:01 J -23489866.26 -23489866.04 -23489865.80 0.0088 0.0032
 Neptune -69024-04-05 02:23 J -23489498.65 -23489498.40 -23489498.15 0.0088 0.0027
 Uranus -69023-01-19 02:23 J -23489209.59 -23489209.40 -23489209.18 0.0136 0.0087
 Jupiter -69023-03-11 08:09 J -23489158.24 -23489158.16 -23489158.07 0.0521 0.0483
 Neptune -69023-04-07 11:01 J -23489131.28 -23489131.04 -23489130.79 0.0088 0.0019
 Uranus -69022-01-23 23:01 J -23488839.79 -23488839.54 -23488839.29 0.0135 0.0031
 Neptune -69022-04-09 21:35 J -23488763.85 -23488763.60 -23488763.33 0.0088 0.0015
 Uranus -69021-01-28 08:09 J -23488470.41 -23488470.16 -23488469.91 0.0135 0.0050
 Neptune -69021-04-11 11:45 J -23488396.25 -23488396.01 -23488395.76 0.0089 0.0007
 Uranus -69020-02-01 00:57 J -23488100.60 -23488100.46 -23488100.30 0.0134 0.0107
 Neptune -69020-04-13 17:45 J -23488029.02 -23488028.76 -23488028.50 0.0089 0.0001

Neptune -69019-04-16 10:33 J -23487661.31 -23487661.06 -23487660.80 0.0089 0.0008
 Neptune -69018-04-18 13:54 J -23487294.16 -23487293.92 -23487293.66 0.0089 0.0013
 Jupiter -69018-08-27 12:42 J -23487163.21 -23487162.97 -23487162.74 0.0507 0.0025
 Neptune -69017-04-20 07:11 J -23486926.45 -23486926.20 -23486925.94 0.0089 0.0022
 Neptune -69016-04-22 11:45 J -23486559.24 -23486559.01 -23486558.76 0.0089 0.0025
 Neptune -69015-04-25 01:11 J -23486191.68 -23486191.45 -23486191.19 0.0089 0.0034
 Neptune -69014-04-27 10:33 J -23485824.28 -23485824.06 -23485823.84 0.0089 0.0037
 Saturn -69014-11-26 02:23 J -23485611.49 -23485611.40 -23485611.30 0.0266 0.0244
 Neptune -69013-04-28 19:25 J -23485456.90 -23485456.69 -23485456.45 0.0089 0.0047
 Saturn -69013-12-07 18:57 J -23485233.94 -23485233.71 -23485233.48 0.0269 0.0087
 Neptune -69012-05-01 09:06 J -23485089.30 -23485089.12 -23485088.89 0.0089 0.0051
 Saturn -69012-12-20 20:23 J -23484855.88 -23484855.65 -23484855.41 0.0274 0.0079
 Neptune -69011-05-03 13:54 J -23484722.09 -23484721.92 -23484721.71 0.0089 0.0060
 Saturn -69010-01-03 04:04 J -23484477.44 -23484477.33 -23484477.20 0.0279 0.0248
 Neptune -69010-05-06 06:57 J -23484354.38 -23484354.21 -23484354.02 0.0089 0.0062
 Neptune -69009-05-07 10:18 J -23483987.21 -23483987.07 -23483986.91 0.0089 0.0071
 Neptune -69008-05-10 02:37 J -23483619.52 -23483619.39 -23483619.23 0.0089 0.0073
 Neptune -69007-05-12 07:11 J -23483252.25 -23483252.20 -23483252.09 0.0089 0.0084
 Neptune -69006-05-14 20:09 J -23482884.72 -23482884.66 -23482884.58 0.0089 0.0085
 Jupiter -69006-08-31 19:25 J -23482775.88 -23482775.69 -23482775.49 0.0506 0.0254
 Mars -69003-12-18 18:13 J -23481570.92 -23481570.74 -23481570.56 0.1615 0.0078

69TH MILLENNIUM BCE

This is a list of transits of Moon in the 69th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Saturn -69000-05-28 06:13 J -23480679.31 -23480679.24 -23480679.16 0.0297 0.0280

Saturn -68999-06-11 06:13 J -23480300.46 -23480300.24 -23480300.01 0.0292 0.0083

Saturn -68998-06-24 19:40 J -23479921.90 -23479921.68 -23479921.46 0.0287 0.0105

Saturn -68997-07-06 18:13 J -23479543.79 -23479543.74 -23479543.66 0.0282 0.0272

Saturn -68984-12-02 07:25 J -23474647.39 -23474647.19 -23474646.98 0.0268 0.0159

Saturn -68983-12-14 21:49 J -23474269.85 -23474269.59 -23474269.34 0.0272 0.0005

Saturn -68982-12-28 03:06 J -23473891.55 -23473891.37 -23473891.17 0.0276 0.0169

Uranus -68979-07-16 23:16 J -23472959.62 -23472959.53 -23472959.40 0.0143 0.0128

Uranus -68978-07-21 11:01 J -23472590.26 -23472590.04 -23472589.80 0.0143 0.0040

Uranus -68977-07-25 10:33 J -23472220.30 -23472220.06 -23472219.81 0.0144 0.0033

Jupiter -68976-02-23 20:37 J -23472006.82 -23472006.64 -23472006.46 0.0517 0.0315

Uranus -68976-07-29 23:16 J -23471850.68 -23471850.53 -23471850.36 0.0144 0.0110

Saturn -68970-06-05 10:04 J -23469714.28 -23469714.08 -23469713.88 0.0295 0.0172

Pluto -68970-10-06 03:21 J -23469591.60 -23469591.36 -23469591.11 0.0064 0.0023

Saturn -68969-06-17 22:33 J -23469335.81 -23469335.56 -23469335.32 0.0290 0.0021

Saturn -68968-07-01 02:37 J -23468957.56 -23468957.39 -23468957.23 0.0285 0.0201

Jupiter -68964-02-28 19:40 J -23467618.92 -23467618.68 -23467618.44 0.0519 0.0085

Jupiter -68959-08-17 14:52 J -23465622.95 -23465622.88 -23465622.81 0.0509 0.0480

Saturn -68955-11-27 03:49 J -23464060.45 -23464060.34 -23464060.22 0.0265 0.0231

Neptune -68954-09-04 19:11 J -23463778.72 -23463778.70 -23463778.66 0.0089 0.0089

Saturn -68954-12-09 19:40 J -23463682.92 -23463682.68 -23463682.44 0.0269 0.0074

Saturn -68953-12-21 16:04 J -23463305.08 -23463304.83 -23463304.59 0.0274 0.0089

Jupiter -68952-03-05 16:33 J -23463231.02 -23463230.81 -23463230.59 0.0519 0.0165

Neptune -68952-09-08 14:52 J -23463043.98 -23463043.88 -23463043.73 0.0089 0.0078

Saturn -68951-01-03 20:52 J -23462926.72 -23462926.63 -23462926.52 0.0279 0.0257

Neptune -68951-09-11 07:54 J -23462676.27 -23462676.17 -23462676.06 0.0089 0.0080

Neptune -68950-09-13 12:57 J -23462309.12 -23462308.96 -23462308.77 0.0089 0.0066

Neptune -68949-09-15 07:40 J -23461941.33 -23461941.18 -23461941.00 0.0089 0.0068

Neptune -68948-09-17 12:57 J -23461574.15 -23461573.96 -23461573.75 0.0089 0.0053
 Jupiter -68947-08-22 09:21 J -23461235.30 -23461235.11 -23461234.90 0.0508 0.0277
 Neptune -68947-09-20 06:28 J -23461206.41 -23461206.23 -23461206.00 0.0089 0.0056
 Neptune -68946-09-22 15:06 J -23460839.08 -23460838.87 -23460838.63 0.0089 0.0041
 Neptune -68945-09-24 05:01 J -23460471.51 -23460471.29 -23460471.04 0.0089 0.0043
 Neptune -68944-09-26 17:45 J -23460103.98 -23460103.76 -23460103.50 0.0089 0.0028
 Neptune -68943-09-29 02:52 J -23459736.61 -23459736.38 -23459736.11 0.0089 0.0030
 Neptune -68942-10-01 20:23 J -23459368.90 -23459368.65 -23459368.40 0.0089 0.0014
 Saturn -68941-05-29 07:40 J -23459128.26 -23459128.18 -23459128.07 0.0297 0.0269
 Neptune -68941-10-03 02:23 J -23459001.65 -23459001.40 -23459001.14 0.0089 0.0017
 Jupiter -68940-03-10 20:52 J -23458842.72 -23458842.63 -23458842.53 0.0520 0.0472
 Saturn -68940-06-12 08:52 J -23458749.35 -23458749.13 -23458748.90 0.0292 0.0071
 Neptune -68940-10-05 22:04 J -23458633.84 -23458633.58 -23458633.32 0.0089 0.0001
 Uranus -68939-01-19 08:09 J -23458528.34 -23458528.16 -23458527.97 0.0136 0.0096
 Saturn -68939-06-25 18:28 J -23458370.94 -23458370.73 -23458370.50 0.0287 0.0118
 Neptune -68939-10-08 03:35 J -23458266.60 -23458266.35 -23458266.09 0.0089 0.0004
 Uranus -68938-01-24 05:16 J -23458158.53 -23458158.28 -23458158.03 0.0136 0.0015
 Neptune -68938-10-10 22:04 J -23457898.84 -23457898.58 -23457898.31 0.0089 0.0013
 Uranus -68937-01-28 13:25 J -23457789.18 -23457788.94 -23457788.68 0.0135 0.0039
 Neptune -68937-10-12 06:42 J -23457531.47 -23457531.22 -23457530.97 0.0089 0.0010
 Uranus -68936-02-01 07:25 J -23457419.28 -23457419.19 -23457419.04 0.0135 0.0119
 Neptune -68936-10-14 21:35 J -23457163.84 -23457163.60 -23457163.33 0.0089 0.0026
 Jupiter -68935-08-26 18:13 J -23456847.97 -23456847.74 -23456847.51 0.0507 0.0030
 Neptune -68935-10-17 11:01 J -23456796.28 -23456796.04 -23456795.80 0.0089 0.0023
 Neptune -68934-10-19 20:37 J -23456428.86 -23456428.64 -23456428.38 0.0089 0.0039
 Neptune -68933-10-21 14:23 J -23456061.12 -23456060.90 -23456060.66 0.0089 0.0037
 Neptune -68932-10-23 21:35 J -23455693.81 -23455693.60 -23455693.38 0.0089 0.0052
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 Neptune -68927-11-04 20:09 J -23453855.78 -23453855.66 -23453855.49 0.0089 0.0075
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 Saturn -68924-12-15 20:37 J -23452718.88 -23452718.64 -23452718.40 0.0272 0.0012
 Mars -68924-12-20 18:13 J -23452713.86 -23452713.74 -23452713.62 0.1618 0.1233
 Jupiter -68923-08-31 15:21 J -23452460.05 -23452459.86 -23452459.66 0.0506 0.0259
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 Uranus -68895-07-17 09:21 J -23442278.25 -23442278.11 -23442277.93 0.0142 0.0110
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 Saturn -68806-12-18 12:28 J -23409617.24 -23409616.98 -23409616.72 0.0271 0.0028
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 Mars -68798-12-17 18:42 J -23406695.93 -23406695.72 -23406695.52 0.1607 0.0383

Saturn -68793-06-07 17:16 J -23405061.97 -23405061.78 -23405061.57 0.0295 0.0150
 Jupiter -68793-08-16 12:28 J -23404991.99 -23404991.98 -23404991.97 0.0509 0.0508
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 Neptune -68790-09-04 05:01 J -23403878.32 -23403878.29 -23403878.23 0.0089 0.0087
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Uranus -68771-01-19 23:45 J -23397165.70 -23397165.51 -23397165.31 0.0136 0.0092
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 Uranus -68769-01-29 05:01 J -23396426.53 -23396426.29 -23396426.04 0.0135 0.0044
 Jupiter -68769-08-25 16:18 J -23396217.06 -23396216.82 -23396216.58 0.0507 0.0034
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 Neptune -68767-10-25 19:40 J -23395425.87 -23395425.68 -23395425.47 0.0089 0.0055
 Neptune -68766-10-28 14:37 J -23395058.08 -23395057.89 -23395057.68 0.0089 0.0058
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 Saturn -68689-12-07 09:49 J -23366893.32 -23366893.09 -23366892.85 0.0267 0.0107
 Neptune -68688-04-21 11:30 J -23366758.24 -23366758.02 -23366757.77 0.0089 0.0030
 Saturn -68688-12-20 01:11 J -23366515.69 -23366515.45 -23366515.20 0.0272 0.0048
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Saturn -68658-12-27 18:13 J -23355550.96 -23355550.74 -23355550.51 0.0273 0.0133
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 Neptune -68449-10-01 12:57 J -23279300.23 -23279299.96 -23279299.69 0.0089 0.0005
 Neptune -68448-10-03 23:30 J -23278932.77 -23278932.52 -23278932.27 0.0089 0.0001
 Neptune -68447-10-06 10:47 J -23278565.32 -23278565.05 -23278564.78 0.0089 0.0008
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 Jupiter -68442-03-08 04:47 J -23276951.45 -23276951.30 -23276951.15 0.0520 0.0384
 Neptune -68442-10-18 06:13 J -23276727.46 -23276727.24 -23276726.99 0.0089 0.0038
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 Saturn -68440-06-02 14:23 J -23276134.01 -23276133.90 -23276133.79 0.0297 0.0264
 Neptune -68440-10-22 06:13 J -23275992.44 -23275992.24 -23275992.00 0.0089 0.0051
 Saturn -68439-06-16 12:42 J -23275755.21 -23275754.97 -23275754.73 0.0293 0.0052
 Neptune -68439-10-24 16:47 J -23275624.97 -23275624.80 -23275624.58 0.0089 0.0056

Saturn -68438-06-29 20:37 J -23275376.85 -23275376.64 -23275376.43 0.0288 0.0151
 Neptune -68438-10-27 05:16 J -23275257.45 -23275257.28 -23275257.06 0.0089 0.0062
 Jupiter -68437-08-24 02:09 J -23274955.64 -23274955.41 -23274955.17 0.0507 0.0080
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 Uranus -68435-01-21 12:28 J -23274440.17 -23274439.98 -23274439.76 0.0136 0.0080
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 Mars -68435-12-20 22:33 J -23274106.75 -23274106.56 -23274106.36 0.1606 0.0513
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 Jupiter -68425-08-28 06:42 J -23270568.44 -23270568.22 -23270568.00 0.0506 0.0163
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 Saturn -68424-12-08 19:40 J -23270100.90 -23270100.68 -23270100.45 0.0267 0.0109
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 Saturn -68421-01-03 19:54 J -23269344.82 -23269344.67 -23269344.50 0.0275 0.0214
 Jupiter -68413-09-01 22:18 J -23266180.72 -23266180.57 -23266180.40 0.0505 0.0358
 Saturn -68410-06-10 19:54 J -23265168.87 -23265168.67 -23265168.46 0.0296 0.0140
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 Jupiter -68395-02-20 12:13 J -23259800.05 -23259799.99 -23259799.92 0.0516 0.0491
 Saturn -68395-12-04 03:35 J -23259513.54 -23259513.35 -23259513.14 0.0266 0.0169
 Saturn -68394-12-16 11:01 J -23259136.29 -23259136.04 -23259135.78 0.0270 0.0022
 Saturn -68393-12-28 07:54 J -23258758.38 -23258758.17 -23258757.96 0.0274 0.0142
 Uranus -68391-07-19 16:47 J -23258189.98 -23258189.80 -23258189.60 0.0142 0.0095
 Uranus -68390-07-24 12:13 J -23257820.22 -23257819.99 -23257819.75 0.0143 0.0030
 Uranus -68389-07-28 04:18 J -23257450.55 -23257450.32 -23257450.08 0.0143 0.0061
 Pluto -68388-04-14 02:52 J -23257190.56 -23257190.38 -23257190.15 0.0080 0.0050
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Jupiter -68383-02-25 07:40 J -23255412.39 -23255412.18 -23255411.96 0.0517 0.0250
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 Saturn -68380-06-18 04:04 J -23254203.58 -23254203.33 -23254203.08 0.0292 0.0022
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 Saturn -68379-07-01 12:28 J -23253825.17 -23253824.98 -23253824.80 0.0287 0.0180
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 Saturn -68366-11-29 01:40 J -23248926.54 -23248926.43 -23248926.30 0.0265 0.0232
 Neptune -68365-04-09 07:25 J -23248794.45 -23248794.19 -23248793.92 0.0088 0.0003
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 Neptune -68364-04-11 14:52 J -23248427.12 -23248426.88 -23248426.62 0.0088 0.0009
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 Neptune -68363-04-14 02:23 J -23248059.66 -23248059.40 -23248059.13 0.0089 0.0014
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 Neptune -68362-04-16 14:23 J -23247692.13 -23247691.90 -23247691.65 0.0089 0.0020
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Neptune -68360-04-20 13:40 J -23246957.16 -23246956.93 -23246956.69 0.0089 0.0032
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 Neptune -68359-04-22 17:30 J -23246589.99 -23246589.77 -23246589.52 0.0089 0.0039
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 Neptune -68352-05-07 18:28 J -23244017.83 -23244017.73 -23244017.56 0.0089 0.0076
 Uranus -68351-01-21 18:28 J -23243758.93 -23243758.73 -23243758.51 0.0136 0.0074
 Neptune -68351-05-10 11:01 J -23243650.11 -23243650.04 -23243649.92 0.0089 0.0082
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 Neptune -68350-05-12 14:37 J -23243282.97 -23243282.89 -23243282.81 0.0089 0.0084
 Saturn -68350-06-26 13:11 J -23243238.17 -23243237.95 -23243237.72 0.0290 0.0098
 Uranus -68349-01-30 23:59 J -23243019.70 -23243019.50 -23243019.27 0.0135 0.0073
 Uranus -68348-02-03 19:40 J -23242649.73 -23242649.68 -23242649.58 0.0135 0.0129
 Jupiter -68342-08-28 10:47 J -23240253.27 -23240253.05 -23240252.82 0.0507 0.0122
 Saturn -68336-12-05 13:25 J -23237962.14 -23237961.94 -23237961.71 0.0266 0.0149
 Saturn -68335-12-18 01:54 J -23237584.67 -23237584.42 -23237584.17 0.0270 0.0006
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 Saturn -68322-06-07 02:52 J -23233030.55 -23233030.38 -23233030.19 0.0296 0.0203
 Saturn -68321-06-19 21:35 J -23232651.84 -23232651.60 -23232651.36 0.0292 0.0007
 Saturn -68320-07-03 08:52 J -23232273.28 -23232273.13 -23232272.97 0.0287 0.0209
 Mars -68309-12-17 05:16 J -23228088.44 -23228088.28 -23228088.12 0.1597 0.0874
 Uranus -68307-07-20 00:42 J -23227508.61 -23227508.47 -23227508.28 0.0142 0.0107
 Saturn -68307-11-30 19:11 J -23227374.84 -23227374.70 -23227374.55 0.0265 0.0212

Uranus -68306-07-24 21:35 J -23227138.84 -23227138.60 -23227138.36 0.0143 0.0014
 Saturn -68306-12-13 06:57 J -23226997.45 -23226997.21 -23226996.96 0.0268 0.0063
 Uranus -68305-07-28 11:59 J -23226769.22 -23226769.00 -23226768.75 0.0143 0.0055
 Saturn -68305-12-24 22:47 J -23226619.80 -23226619.55 -23226619.31 0.0272 0.0096
 Uranus -68304-08-02 08:52 J -23226399.14 -23226399.13 -23226399.10 0.0144 0.0143
 Saturn -68303-01-06 23:59 J -23226241.56 -23226241.50 -23226241.42 0.0277 0.0266
 Jupiter -68300-02-24 01:11 J -23225097.63 -23225097.45 -23225097.26 0.0517 0.0292
 Neptune -68300-08-28 11:45 J -23224912.06 -23224912.01 -23224911.89 0.0089 0.0084
 Neptune -68299-08-31 05:30 J -23224544.31 -23224544.27 -23224544.19 0.0089 0.0086
 Neptune -68298-09-02 09:35 J -23224177.21 -23224177.10 -23224176.93 0.0089 0.0074
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 Neptune -68296-09-06 09:06 J -23223442.27 -23223442.12 -23223441.92 0.0089 0.0063
 Neptune -68295-09-08 23:59 J -23223074.67 -23223074.50 -23223074.31 0.0089 0.0064
 Neptune -68294-09-11 11:01 J -23222707.23 -23222707.04 -23222706.83 0.0089 0.0052
 Saturn -68293-05-31 15:21 J -23222443.90 -23222443.86 -23222443.81 0.0298 0.0292
 Neptune -68293-09-12 20:52 J -23222339.82 -23222339.63 -23222339.40 0.0089 0.0054
 Saturn -68292-06-14 18:28 J -23222064.96 -23222064.73 -23222064.50 0.0294 0.0079
 Neptune -68292-09-15 13:11 J -23221972.17 -23221971.95 -23221971.73 0.0089 0.0040
 Saturn -68291-06-28 06:13 J -23221686.46 -23221686.24 -23221686.02 0.0289 0.0128
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 Neptune -68290-09-20 13:11 J -23221237.18 -23221236.95 -23221236.69 0.0089 0.0028
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Neptune -68282-10-08 07:54 J -23218297.42 -23218297.17 -23218296.90 0.0089 0.0020
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 Jupiter -68276-03-05 19:54 J -23216321.85 -23216321.67 -23216321.47 0.0519 0.0304
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 Neptune -68275-10-24 02:52 J -23215724.58 -23215724.38 -23215724.15 0.0089 0.0052
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 Neptune -68272-10-30 22:47 J -23214621.66 -23214621.55 -23214621.42 0.0089 0.0078
 Jupiter -68271-08-23 00:13 J -23214325.71 -23214325.49 -23214325.27 0.0508 0.0147
 Neptune -68271-11-02 05:01 J -23214254.42 -23214254.29 -23214254.14 0.0089 0.0074
 Neptune -68270-11-05 00:57 J -23213886.47 -23213886.46 -23213886.41 0.0089 0.0088
 Neptune -68269-11-06 08:09 J -23213519.21 -23213519.16 -23213519.06 0.0089 0.0085
 Uranus -68267-01-22 00:57 J -23213077.65 -23213077.46 -23213077.24 0.0136 0.0077
 Uranus -68266-01-26 21:06 J -23212707.89 -23212707.62 -23212707.36 0.0136 0.0002
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 Saturn -68263-06-08 20:37 J -23211478.82 -23211478.64 -23211478.44 0.0296 0.0174
 Saturn -68262-06-22 17:45 J -23211099.99 -23211099.76 -23211099.53 0.0291 0.0037
 Saturn -68261-07-05 05:16 J -23210721.40 -23210721.28 -23210721.14 0.0286 0.0236
 Jupiter -68259-08-27 08:09 J -23209938.39 -23209938.16 -23209937.93 0.0507 0.0093
 Saturn -68248-12-02 07:54 J -23205823.35 -23205823.17 -23205823.00 0.0265 0.0192
 Jupiter -68247-08-31 23:59 J -23205550.68 -23205550.50 -23205550.32 0.0506 0.0296
 Saturn -68247-12-14 15:21 J -23205446.11 -23205445.86 -23205445.60 0.0269 0.0043
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Saturn -68234-06-03 11:01 J -23200892.15 -23200892.04 -23200891.92 0.0298 0.0262
 Saturn -68233-06-16 09:06 J -23200513.36 -23200513.12 -23200512.87 0.0294 0.0049
 Saturn -68232-06-29 18:13 J -23200134.94 -23200134.74 -23200134.53 0.0289 0.0155
 Pluto -68230-10-10 07:40 J -23199302.42 -23199302.18 -23199301.92 0.0064 0.0023
 Mars -68230-12-20 04:04 J -23199231.51 -23199231.33 -23199231.15 0.1600 0.0301
 Pluto -68229-10-10 19:40 J -23198935.76 -23198935.68 -23198935.56 0.0065 0.0059
 Mars -68223-06-18 15:06 J -23196859.02 -23196858.87 -23196858.71 0.1953 0.1263
 Uranus -68223-07-20 11:59 J -23196827.18 -23196827.00 -23196826.78 0.0142 0.0088
 Uranus -68222-07-25 09:35 J -23196457.34 -23196457.10 -23196456.86 0.0143 0.0023
 Uranus -68221-07-28 23:01 J -23196087.76 -23196087.54 -23196087.31 0.0143 0.0070
 Saturn -68219-11-27 03:21 J -23195236.42 -23195236.36 -23195236.29 0.0264 0.0253
 Saturn -68218-12-09 13:40 J -23194859.15 -23194858.93 -23194858.71 0.0267 0.0111
 Jupiter -68217-02-24 05:16 J -23194782.46 -23194782.28 -23194782.08 0.0516 0.0325
 Neptune -68217-03-03 23:59 J -23194773.58 -23194773.50 -23194773.39 0.0088 0.0082
 Saturn -68217-12-21 09:06 J -23194481.37 -23194481.12 -23194480.88 0.0271 0.0047
 Neptune -68216-03-06 07:54 J -23194406.23 -23194406.17 -23194406.06 0.0088 0.0084
 Saturn -68215-01-03 09:49 J -23194103.24 -23194103.09 -23194102.92 0.0275 0.0217
 Neptune -68215-03-09 02:09 J -23194038.54 -23194038.41 -23194038.23 0.0088 0.0070
 Neptune -68214-03-11 07:11 J -23193671.32 -23193671.20 -23193671.03 0.0088 0.0073
 Neptune -68213-03-13 02:23 J -23193303.57 -23193303.40 -23193303.19 0.0088 0.0060
 Neptune -68212-03-15 08:23 J -23192936.33 -23192936.15 -23192935.97 0.0088 0.0063
 Neptune -68211-03-18 00:28 J -23192568.69 -23192568.48 -23192568.24 0.0088 0.0049
 Neptune -68210-03-20 09:21 J -23192201.30 -23192201.11 -23192200.89 0.0088 0.0052
 Neptune -68209-03-21 21:21 J -23191833.83 -23191833.61 -23191833.35 0.0088 0.0038
 Neptune -68208-03-24 11:16 J -23191466.23 -23191466.03 -23191465.78 0.0088 0.0041
 Neptune -68207-03-26 19:11 J -23191098.95 -23191098.70 -23191098.45 0.0088 0.0026
 Neptune -68206-03-29 11:59 J -23190731.23 -23190731.00 -23190730.74 0.0088 0.0029
 Jupiter -68205-02-28 20:09 J -23190394.89 -23190394.66 -23190394.43 0.0518 0.0022
 Neptune -68205-03-30 16:47 J -23190364.05 -23190363.80 -23190363.54 0.0088 0.0014
 Neptune -68204-04-02 11:16 J -23189996.28 -23189996.03 -23189995.77 0.0088 0.0017

Saturn -68204-06-10 16:18 J -23189927.02 -23189926.82 -23189926.62 0.0295 0.0144
 Neptune -68203-04-04 16:18 J -23189629.07 -23189628.82 -23189628.56 0.0088 0.0003
 Saturn -68203-06-24 13:11 J -23189548.17 -23189547.95 -23189547.72 0.0291 0.0066
 Neptune -68202-04-07 08:09 J -23189261.42 -23189261.16 -23189260.89 0.0088 0.0005
 Saturn -68202-07-07 20:09 J -23189169.74 -23189169.66 -23189169.55 0.0286 0.0260
 Neptune -68201-04-08 16:33 J -23188894.06 -23188893.81 -23188893.56 0.0088 0.0009
 Neptune -68200-04-11 03:49 J -23188526.60 -23188526.34 -23188526.07 0.0088 0.0006
 Jupiter -68200-08-17 16:04 J -23188397.93 -23188397.83 -23188397.72 0.0510 0.0451
 Neptune -68199-04-13 17:16 J -23188159.02 -23188158.78 -23188158.54 0.0088 0.0021
 Neptune -68198-04-15 23:30 J -23187791.78 -23187791.52 -23187791.26 0.0089 0.0018
 Neptune -68197-04-17 16:04 J -23187424.06 -23187423.83 -23187423.58 0.0089 0.0033
 Neptune -68196-04-19 20:09 J -23187056.90 -23187056.66 -23187056.42 0.0089 0.0029
 Neptune -68195-04-22 13:11 J -23186689.16 -23186688.95 -23186688.71 0.0089 0.0044
 Neptune -68194-04-24 17:30 J -23186321.97 -23186321.77 -23186321.53 0.0089 0.0041
 Jupiter -68193-03-04 23:45 J -23186006.71 -23186006.51 -23186006.31 0.0519 0.0260
 Neptune -68193-04-26 08:09 J -23185954.35 -23185954.16 -23185953.94 0.0089 0.0055
 Neptune -68192-04-28 16:47 J -23185586.99 -23185586.80 -23185586.59 0.0089 0.0052
 Neptune -68191-05-01 02:37 J -23185219.55 -23185219.39 -23185219.19 0.0089 0.0066
 Neptune -68190-05-03 16:04 J -23184851.98 -23184851.83 -23184851.63 0.0089 0.0063
 Neptune -68189-05-04 21:35 J -23184484.71 -23184484.60 -23184484.45 0.0089 0.0076
 Saturn -68189-12-03 11:59 J -23184272.20 -23184272.00 -23184271.81 0.0266 0.0174
 Neptune -68188-05-07 14:09 J -23184117.03 -23184116.91 -23184116.74 0.0089 0.0072
 Jupiter -68188-08-21 23:30 J -23184010.74 -23184010.52 -23184010.30 0.0509 0.0170
 Saturn -68188-12-15 19:11 J -23183894.95 -23183894.70 -23183894.45 0.0269 0.0027
 Neptune -68187-05-09 17:16 J -23183749.82 -23183749.78 -23183749.70 0.0089 0.0086
 Saturn -68187-12-28 17:16 J -23183516.98 -23183516.78 -23183516.57 0.0273 0.0140
 Neptune -68186-05-12 09:49 J -23183382.16 -23183382.09 -23183381.97 0.0089 0.0082
 Uranus -68183-01-22 09:49 J -23182396.29 -23182396.09 -23182395.86 0.0136 0.0073
 Uranus -68182-01-27 05:01 J -23182026.56 -23182026.29 -23182026.02 0.0136 0.0006
 Uranus -68181-01-31 15:49 J -23181657.04 -23181656.84 -23181656.63 0.0135 0.0077

Jupiter -68181-03-09 18:42 J -23181618.80 -23181618.72 -23181618.64 0.0520 0.0487
 Uranus -68180-02-04 09:21 J -23181287.12 -23181287.11 -23181287.05 0.0135 0.0134
 Jupiter -68176-08-26 11:16 J -23179623.25 -23179623.03 -23179622.81 0.0507 0.0052
 Saturn -68175-06-04 22:18 J -23179340.72 -23179340.57 -23179340.41 0.0298 0.0234
 Saturn -68174-06-18 18:13 J -23178961.98 -23178961.74 -23178961.50 0.0293 0.0022
 Saturn -68173-07-01 05:45 J -23178583.44 -23178583.26 -23178583.08 0.0288 0.0182
 Jupiter -68164-08-30 22:04 J -23175235.78 -23175235.58 -23175235.37 0.0507 0.0253
 Saturn -68160-11-28 10:47 J -23173685.13 -23173685.05 -23173684.93 0.0264 0.0238
 Saturn -68159-12-10 22:47 J -23173307.77 -23173307.55 -23173307.31 0.0267 0.0095
 Saturn -68158-12-23 14:09 J -23172930.16 -23172929.91 -23172929.65 0.0271 0.0064
 Saturn -68156-01-04 12:13 J -23172552.11 -23172551.99 -23172551.85 0.0276 0.0236
 Jupiter -68152-09-04 08:09 J -23170848.18 -23170848.16 -23170848.15 0.0506 0.0504
 Mars -68151-12-21 23:59 J -23170374.66 -23170374.50 -23170374.34 0.1602 0.0831
 Saturn -68145-06-12 06:57 J -23168375.42 -23168375.21 -23168374.99 0.0295 0.0118
 Mars -68144-06-22 15:49 J -23168000.00 -23167999.84 -23167999.68 0.1947 0.1254
 Saturn -68144-06-26 00:13 J -23167996.72 -23167996.49 -23167996.26 0.0290 0.0091
 Saturn -68143-07-09 02:23 J -23167618.41 -23167618.40 -23167618.39 0.0285 0.0285
 Pluto -68141-04-16 04:33 J -23166971.57 -23166971.31 -23166971.05 0.0080 0.0015
 Uranus -68139-07-20 22:18 J -23166145.74 -23166145.57 -23166145.38 0.0142 0.0099
 Uranus -68138-07-25 20:23 J -23165775.89 -23165775.65 -23165775.40 0.0143 0.0006
 Uranus -68137-07-29 09:06 J -23165406.33 -23165406.12 -23165405.88 0.0143 0.0064
 Neptune -68136-08-28 06:57 J -23165011.31 -23165011.21 -23165011.08 0.0089 0.0080
 Neptune -68135-08-30 11:30 J -23164644.12 -23164644.02 -23164643.91 0.0089 0.0081
 Jupiter -68134-02-22 22:04 J -23164467.74 -23164467.58 -23164467.42 0.0516 0.0364
 Neptune -68134-09-02 04:33 J -23164276.46 -23164276.31 -23164276.13 0.0089 0.0070
 Neptune -68133-09-03 11:30 J -23163909.16 -23163909.02 -23163908.86 0.0089 0.0071
 Neptune -68132-09-06 00:42 J -23163541.64 -23163541.47 -23163541.25 0.0089 0.0061
 Neptune -68131-09-08 12:13 J -23163174.16 -23163173.99 -23163173.79 0.0089 0.0060
 Neptune -68130-09-10 21:06 J -23162806.84 -23162806.62 -23162806.39 0.0089 0.0048
 Saturn -68130-12-05 11:01 J -23162721.23 -23162721.04 -23162720.83 0.0266 0.0160

Neptune -68129-09-12 12:57 J -23162439.16 -23162438.96 -23162438.74 0.0089 0.0048
 Saturn -68129-12-17 00:13 J -23162343.73 -23162343.49 -23162343.24 0.0269 0.0010
 Neptune -68128-09-14 18:28 J -23162071.95 -23162071.73 -23162071.48 0.0089 0.0037
 Saturn -68128-12-30 01:40 J -23161965.62 -23161965.43 -23161965.23 0.0274 0.0158
 Neptune -68127-09-17 13:11 J -23161704.17 -23161703.95 -23161703.70 0.0089 0.0037
 Neptune -68126-09-19 18:13 J -23161336.97 -23161336.74 -23161336.48 0.0089 0.0027
 Neptune -68125-09-21 12:13 J -23160969.23 -23160968.99 -23160968.73 0.0089 0.0025
 Neptune -68124-09-23 19:40 J -23160601.91 -23160601.68 -23160601.42 0.0089 0.0016
 Neptune -68123-09-26 10:18 J -23160234.33 -23160234.07 -23160233.80 0.0089 0.0013
 Jupiter -68122-02-28 05:59 J -23160079.48 -23160079.25 -23160079.01 0.0517 0.0042
 Neptune -68122-09-28 22:18 J -23159866.82 -23159866.57 -23159866.32 0.0089 0.0004
 Neptune -68121-09-30 07:40 J -23159499.45 -23159499.18 -23159498.91 0.0089 0.0002
 Neptune -68120-10-03 00:13 J -23159131.74 -23159131.49 -23159131.24 0.0089 0.0007
 Neptune -68119-10-05 06:13 J -23158764.50 -23158764.24 -23158763.98 0.0089 0.0010
 Neptune -68118-10-08 01:40 J -23158396.68 -23158396.43 -23158396.18 0.0089 0.0019
 Jupiter -68117-08-16 11:59 J -23158083.07 -23158083.00 -23158082.93 0.0510 0.0483
 Neptune -68117-10-09 07:11 J -23158029.45 -23158029.20 -23158028.96 0.0089 0.0023
 Saturn -68116-06-06 03:49 J -23157789.51 -23157789.34 -23157789.17 0.0298 0.0213
 Neptune -68116-10-12 01:40 J -23157661.67 -23157661.43 -23157661.17 0.0089 0.0031
 Saturn -68115-06-20 02:52 J -23157410.61 -23157410.38 -23157410.14 0.0293 0.0006
 Neptune -68115-10-14 10:04 J -23157294.31 -23157294.08 -23157293.84 0.0089 0.0035
 Saturn -68114-07-03 17:30 J -23157031.92 -23157031.77 -23157031.60 0.0288 0.0208
 Neptune -68114-10-17 01:11 J -23156926.66 -23156926.45 -23156926.19 0.0089 0.0042
 Neptune -68113-10-18 13:40 J -23156559.12 -23156558.93 -23156558.69 0.0089 0.0047
 Neptune -68112-10-21 00:13 J -23156191.69 -23156191.49 -23156191.26 0.0089 0.0053
 Neptune -68111-10-23 17:01 J -23155823.96 -23155823.79 -23155823.58 0.0089 0.0059
 Jupiter -68110-03-05 01:11 J -23155691.66 -23155691.45 -23155691.23 0.0519 0.0235
 Neptune -68110-10-26 00:13 J -23155456.66 -23155456.49 -23155456.29 0.0089 0.0064
 Neptune -68109-10-27 19:54 J -23155088.81 -23155088.67 -23155088.49 0.0089 0.0070
 Neptune -68108-10-30 02:23 J -23154721.54 -23154721.40 -23154721.26 0.0089 0.0073

Neptune -68107-11-01 21:35 J -23154353.70 -23154353.60 -23154353.47 0.0089 0.0080
 Neptune -68106-11-04 05:16 J -23153986.33 -23153986.28 -23153986.16 0.0089 0.0084
 Jupiter -68105-08-21 04:18 J -23153695.52 -23153695.32 -23153695.12 0.0509 0.0207
 Mars -68104-12-15 18:13 J -23153213.85 -23153213.74 -23153213.64 0.1591 0.1316
 Saturn -68101-11-29 16:33 J -23152133.93 -23152133.81 -23152133.67 0.0264 0.0223
 Saturn -68100-12-11 23:01 J -23151756.78 -23151756.54 -23151756.28 0.0267 0.0080
 Uranus -68099-01-22 19:40 J -23151714.88 -23151714.68 -23151714.45 0.0136 0.0071
 Saturn -68099-12-24 10:47 J -23151379.29 -23151379.05 -23151378.80 0.0271 0.0079
 Uranus -68098-01-27 13:11 J -23151345.22 -23151344.95 -23151344.68 0.0136 0.0006
 Jupiter -68098-03-10 02:52 J -23151303.47 -23151303.38 -23151303.27 0.0519 0.0463
 Saturn -68097-01-06 12:28 J -23151001.08 -23151000.98 -23151000.89 0.0276 0.0253
 Uranus -68097-02-01 00:42 J -23150975.68 -23150975.47 -23150975.25 0.0135 0.0067
 Jupiter -68093-08-25 16:18 J -23149308.06 -23149307.82 -23149307.58 0.0508 0.0023
 Saturn -68086-06-14 12:42 J -23146824.20 -23146823.97 -23146823.74 0.0295 0.0095
 Saturn -68085-06-27 01:25 J -23146445.66 -23146445.44 -23146445.21 0.0290 0.0117
 Jupiter -68081-08-30 04:18 J -23144920.51 -23144920.32 -23144920.12 0.0507 0.0235
 Saturn -68071-12-06 11:45 J -23141170.20 -23141170.01 -23141169.80 0.0266 0.0147
 Saturn -68070-12-19 04:33 J -23140792.55 -23140792.31 -23140792.06 0.0269 0.0005
 Jupiter -68069-09-03 23:59 J -23140532.54 -23140532.50 -23140532.46 0.0506 0.0498
 Saturn -68069-12-31 02:52 J -23140414.56 -23140414.38 -23140414.17 0.0274 0.0173
 Saturn -68057-06-07 07:11 J -23136238.38 -23136238.20 -23136238.03 0.0297 0.0195
 Saturn -68056-06-21 09:35 J -23135859.33 -23135859.10 -23135858.87 0.0293 0.0025
 Neptune -68055-02-27 07:25 J -23135608.20 -23135608.19 -23135608.12 0.0088 0.0088
 Saturn -68055-07-04 23:01 J -23135480.67 -23135480.54 -23135480.39 0.0288 0.0229
 Uranus -68055-07-21 07:54 J -23135464.36 -23135464.17 -23135463.94 0.0142 0.0083
 Neptune -68054-03-01 22:47 J -23135240.55 -23135240.55 -23135240.51 0.0088 0.0088
 Uranus -68054-07-26 06:57 J -23135094.44 -23135094.21 -23135093.96 0.0143 0.0017
 Neptune -68053-03-03 05:59 J -23134873.35 -23134873.25 -23134873.10 0.0088 0.0077
 Uranus -68053-07-29 18:57 J -23134724.92 -23134724.71 -23134724.49 0.0144 0.0079
 Neptune -68052-03-06 01:11 J -23134505.56 -23134505.45 -23134505.31 0.0088 0.0078

Jupiter -68051-02-22 15:49 J -23134152.00 -23134151.84 -23134151.67 0.0516 0.0368
 Neptune -68051-03-08 05:59 J -23134138.38 -23134138.25 -23134138.06 0.0088 0.0069
 Neptune -68050-03-11 01:25 J -23133770.59 -23133770.44 -23133770.25 0.0088 0.0068
 Neptune -68049-03-12 07:40 J -23133403.34 -23133403.18 -23133402.96 0.0088 0.0059
 Neptune -68048-03-15 00:28 J -23133035.67 -23133035.48 -23133035.26 0.0088 0.0056
 Neptune -68047-03-17 10:04 J -23132668.27 -23132668.08 -23132667.84 0.0088 0.0048
 Neptune -68046-03-19 21:35 J -23132300.83 -23132300.60 -23132300.36 0.0088 0.0045
 Neptune -68045-03-21 11:45 J -23131933.23 -23131933.01 -23131932.77 0.0088 0.0037
 Neptune -68044-03-23 18:13 J -23131565.96 -23131565.74 -23131565.48 0.0088 0.0035
 Neptune -68043-03-26 12:28 J -23131198.22 -23131197.98 -23131197.73 0.0088 0.0026
 Neptune -68042-03-28 16:47 J -23130831.04 -23130830.80 -23130830.54 0.0088 0.0022
 Saturn -68042-12-01 14:23 J -23130583.04 -23130582.90 -23130582.74 0.0264 0.0212
 Neptune -68041-03-30 11:01 J -23130463.28 -23130463.04 -23130462.77 0.0088 0.0015
 Saturn -68041-12-12 16:33 J -23130206.05 -23130205.81 -23130205.55 0.0267 0.0069
 Neptune -68040-04-01 17:01 J -23130096.04 -23130095.79 -23130095.54 0.0088 0.0010
 Saturn -68040-12-25 08:09 J -23129828.39 -23129828.16 -23129827.92 0.0271 0.0092
 Jupiter -68039-02-27 08:23 J -23129764.39 -23129764.15 -23129763.91 0.0517 0.0052
 Neptune -68039-04-04 08:37 J -23129728.40 -23129728.14 -23129727.87 0.0088 0.0003
 Saturn -68038-01-07 14:09 J -23129449.95 -23129449.91 -23129449.86 0.0276 0.0270
 Neptune -68038-04-06 18:13 J -23129360.99 -23129360.74 -23129360.49 0.0088 0.0002
 Neptune -68037-04-08 04:33 J -23128993.57 -23128993.31 -23128993.04 0.0088 0.0009
 Neptune -68036-04-10 18:28 J -23128625.97 -23128625.73 -23128625.48 0.0088 0.0014
 Neptune -68035-04-13 00:13 J -23128258.74 -23128258.49 -23128258.23 0.0088 0.0020
 Neptune -68034-04-15 17:45 J -23127891.00 -23127890.76 -23127890.52 0.0088 0.0025
 Jupiter -68034-08-16 23:30 J -23127767.55 -23127767.52 -23127767.47 0.0510 0.0501
 Neptune -68033-04-16 21:21 J -23127523.84 -23127523.61 -23127523.36 0.0089 0.0031
 Neptune -68032-04-19 14:37 J -23127156.11 -23127155.89 -23127155.63 0.0089 0.0036
 Neptune -68031-04-21 20:09 J -23126788.87 -23126788.66 -23126788.43 0.0089 0.0041
 Neptune -68030-04-24 10:33 J -23126421.27 -23126421.06 -23126420.83 0.0089 0.0047
 Neptune -68029-04-25 19:40 J -23126053.86 -23126053.68 -23126053.46 0.0089 0.0053

Neptune -68028-04-28 04:47 J -23125686.48 -23125686.30 -23125686.08 0.0089 0.0058
 Saturn -68028-06-01 08:37 J -23125652.16 -23125652.14 -23125652.10 0.0299 0.0297
 Jupiter -68027-03-04 10:47 J -23125376.26 -23125376.05 -23125375.85 0.0518 0.0210
 Neptune -68027-04-30 18:57 J -23125318.88 -23125318.71 -23125318.53 0.0089 0.0062
 Saturn -68027-06-15 09:06 J -23125273.35 -23125273.12 -23125272.87 0.0295 0.0076
 Neptune -68026-05-02 23:45 J -23124951.67 -23124951.51 -23124951.33 0.0089 0.0067
 Saturn -68026-06-28 23:45 J -23124894.71 -23124894.51 -23124894.29 0.0290 0.0138
 Neptune -68025-05-04 16:47 J -23124583.93 -23124583.80 -23124583.64 0.0089 0.0072
 Mars -68025-12-18 03:35 J -23124356.55 -23124356.35 -23124356.16 0.1593 0.0574
 Neptune -68024-05-06 20:23 J -23124216.76 -23124216.65 -23124216.53 0.0089 0.0078
 Neptune -68023-05-09 12:42 J -23123849.05 -23123848.97 -23123848.85 0.0089 0.0082
 Neptune -68022-05-11 17:59 J -23123481.76 -23123481.75 -23123481.70 0.0089 0.0088
 Jupiter -68022-08-21 13:54 J -23123380.13 -23123379.92 -23123379.70 0.0509 0.0220
 Uranus -68015-01-23 06:13 J -23121033.44 -23121033.24 -23121033.01 0.0136 0.0068
 Jupiter -68015-03-09 07:54 J -23120988.29 -23120988.17 -23120988.03 0.0519 0.0435
 Uranus -68014-01-27 22:33 J -23120663.82 -23120663.56 -23120663.29 0.0136 0.0003
 Uranus -68013-02-01 11:16 J -23120294.21 -23120294.03 -23120293.82 0.0135 0.0083
 Saturn -68012-12-07 13:11 J -23119619.15 -23119618.95 -23119618.73 0.0266 0.0138
 Saturn -68011-12-20 01:54 J -23119241.67 -23119241.42 -23119241.16 0.0269 0.0017
 Jupiter -68010-08-26 01:40 J -23118992.65 -23118992.43 -23118992.20 0.0508 0.0003
 Saturn -68009-01-01 18:57 J -23118863.90 -23118863.71 -23118863.52 0.0274 0.0188

68TH MILLENNIUM BCE

This is a list of transits of Moon in the 68th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Saturn -67998-06-09 09:49 J -23114687.27 -23114687.09 -23114686.90 0.0297 0.0180
Jupiter -67998-08-30 16:47 J -23114605.01 -23114604.80 -23114604.59 0.0507 0.0208
Saturn -67997-06-22 10:33 J -23114308.30 -23114308.06 -23114307.82 0.0293 0.0041
Saturn -67996-07-05 18:57 J -23113929.83 -23113929.71 -23113929.58 0.0288 0.0248
Jupiter -67986-09-03 21:35 J -23110217.67 -23110217.60 -23110217.51 0.0506 0.0474
Pluto -67983-10-12 05:01 J -23109083.55 -23109083.29 -23109083.02 0.0064 0.0013
Saturn -67983-12-02 05:30 J -23109032.42 -23109032.27 -23109032.10 0.0263 0.0206
Saturn -67982-12-14 11:30 J -23108655.26 -23108655.02 -23108654.77 0.0267 0.0059
Saturn -67981-12-26 08:09 J -23108277.38 -23108277.16 -23108276.94 0.0271 0.0106
Neptune -67973-08-25 09:06 J -23105478.23 -23105478.12 -23105478.00 0.0089 0.0080
Neptune -67972-08-27 12:57 J -23105111.04 -23105110.96 -23105110.84 0.0089 0.0082
Uranus -67971-07-21 14:09 J -23104783.07 -23104782.91 -23104782.70 0.0142 0.0096
Neptune -67971-08-30 05:30 J -23104743.40 -23104743.27 -23104743.08 0.0089 0.0070
Uranus -67970-07-26 13:40 J -23104413.17 -23104412.93 -23104412.68 0.0143 0.0003
Neptune -67970-09-01 12:28 J -23104376.10 -23104375.98 -23104375.82 0.0089 0.0072
Saturn -67969-06-02 00:13 J -23104101.56 -23104101.49 -23104101.41 0.0300 0.0284
Uranus -67969-07-30 00:42 J -23104043.68 -23104043.47 -23104043.23 0.0144 0.0068
Neptune -67969-09-03 01:11 J -23104008.63 -23104008.45 -23104008.24 0.0089 0.0060
Jupiter -67968-02-21 17:30 J -23103836.93 -23103836.77 -23103836.60 0.0516 0.0375
Saturn -67968-06-16 03:35 J -23103722.58 -23103722.35 -23103722.11 0.0295 0.0062
Neptune -67968-09-05 13:25 J -23103641.12 -23103640.94 -23103640.76 0.0089 0.0062
Saturn -67967-06-29 23:16 J -23103343.72 -23103343.53 -23103343.33 0.0290 0.0156
Neptune -67967-09-07 21:21 J -23103273.81 -23103273.61 -23103273.38 0.0089 0.0049
Neptune -67966-09-10 13:40 J -23102906.11 -23102905.93 -23102905.70 0.0089 0.0052
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 Saturn -67923-12-15 10:18 J -23087104.31 -23087104.07 -23087103.83 0.0267 0.0051
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 Uranus -67847-01-23 22:47 J -23059670.76 -23059670.55 -23059670.32 0.0136 0.0066
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 Saturn -67832-01-04 07:40 J -23054211.31 -23054211.18 -23054211.05 0.0273 0.0232
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 Uranus -67762-01-28 15:49 J -23028620.10 -23028619.84 -23028619.57 0.0136 0.0012
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Jupiter -67737-09-02 12:28 J -23019271.06 -23019270.98 -23019270.91 0.0506 0.0476
 Pluto -67737-10-12 05:30 J -23019231.48 -23019231.27 -23019231.01 0.0064 0.0031
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 Neptune -67727-02-26 03:21 J -23015807.42 -23015807.36 -23015807.28 0.0088 0.0085
 Neptune -67726-02-28 22:47 J -23015439.68 -23015439.55 -23015439.39 0.0088 0.0074
 Neptune -67725-03-02 04:04 J -23015072.45 -23015072.33 -23015072.17 0.0088 0.0075
 Neptune -67724-03-04 22:47 J -23014704.72 -23014704.55 -23014704.35 0.0088 0.0064
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 Neptune -67722-03-09 21:06 J -23013969.80 -23013969.62 -23013969.38 0.0088 0.0055
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Uranus -67678-01-28 22:18 J -22997938.83 -22997938.57 -22997938.30 0.0136 0.0011
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 Mars -67615-12-16 11:59 J -22974606.01 -22974606.00 -22974605.99 0.1583 0.1576
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Saturn -67613-07-06 08:09 J -22974038.26 -22974038.16 -22974038.06 0.0290 0.0261
 Neptune -67613-11-04 08:23 J -22973917.19 -22973917.15 -22973917.10 0.0089 0.0087
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 Jupiter -67600-03-06 23:45 J -22969411.68 -22969411.51 -22969411.34 0.0519 0.0367
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 Saturn -67511-12-13 02:52 J -22936623.61 -22936623.38 -22936623.15 0.0265 0.0106
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 Saturn -67508-01-06 01:40 J -22935868.51 -22935868.43 -22935868.33 0.0273 0.0254
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 Neptune -67289-10-24 22:33 J -22855586.65 -22855586.56 -22855586.45 0.0089 0.0081
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 Neptune -67054-04-03 13:54 J -22769958.18 -22769957.92 -22769957.66 0.0088 0.0024
 Saturn -67054-07-03 13:11 J -22769867.13 -22769866.95 -22769866.77 0.0293 0.0194
 Neptune -67053-04-04 23:30 J -22769590.75 -22769590.52 -22769590.28 0.0088 0.0026
 Neptune -67052-04-07 10:04 J -22769223.31 -22769223.08 -22769222.82 0.0088 0.0035
 Neptune -67051-04-10 00:42 J -22768855.68 -22768855.47 -22768855.22 0.0088 0.0036
 Neptune -67050-04-12 07:11 J -22768488.42 -22768488.20 -22768487.96 0.0088 0.0044
 Neptune -67049-04-14 00:57 J -22768120.67 -22768120.46 -22768120.23 0.0088 0.0045
 Neptune -67048-04-16 04:47 J -22767753.48 -22767753.30 -22767753.08 0.0088 0.0053
 Neptune -67047-04-18 22:18 J -22767385.75 -22767385.57 -22767385.34 0.0088 0.0056
 Uranus -67047-07-25 15:35 J -22767288.05 -22767287.85 -22767287.62 0.0142 0.0066
 Mars -67047-12-19 04:04 J -22767141.48 -22767141.33 -22767141.18 0.1578 0.0890
 Neptune -67046-04-21 03:49 J -22767018.49 -22767018.34 -22767018.14 0.0088 0.0063
 Uranus -67046-07-30 07:40 J -22766918.43 -22766918.18 -22766917.92 0.0143 0.0013
 Neptune -67045-04-22 18:42 J -22766650.90 -22766650.72 -22766650.54 0.0088 0.0064
 Uranus -67045-08-03 00:28 J -22766548.61 -22766548.48 -22766548.31 0.0143 0.0112
 Neptune -67044-04-25 03:35 J -22766283.49 -22766283.35 -22766283.19 0.0089 0.0071
 Jupiter -67043-02-20 05:01 J -22765982.42 -22765982.29 -22765982.13 0.0514 0.0402
 Neptune -67043-04-27 13:11 J -22765916.10 -22765915.95 -22765915.79 0.0089 0.0072

Neptune -67042-04-30 03:06 J -22765548.45 -22765548.37 -22765548.23 0.0089 0.0080
 Neptune -67041-05-01 09:06 J -22765181.21 -22765181.12 -22765181.01 0.0089 0.0081
 Neptune -67040-05-04 01:54 J -22764813.43 -22764813.42 -22764813.34 0.0089 0.0088
 Saturn -67040-12-12 16:04 J -22764591.05 -22764590.83 -22764590.59 0.0264 0.0109
 Saturn -67039-12-24 23:45 J -22764213.74 -22764213.51 -22764213.26 0.0267 0.0067
 Saturn -67037-01-06 19:25 J -22763835.78 -22763835.69 -22763835.60 0.0271 0.0252
 Jupiter -67031-02-25 13:40 J -22761594.15 -22761593.93 -22761593.70 0.0516 0.0144
 Saturn -67026-06-12 23:59 J -22759660.71 -22759660.50 -22759660.29 0.0300 0.0139
 Saturn -67025-06-26 06:42 J -22759281.44 -22759281.22 -22759281.00 0.0296 0.0093
 Jupiter -67019-03-02 08:23 J -22757206.37 -22757206.15 -22757205.92 0.0517 0.0177
 Jupiter -67014-08-20 04:47 J -22755209.48 -22755209.30 -22755209.12 0.0510 0.0300
 Saturn -67011-12-07 21:21 J -22754003.77 -22754003.61 -22754003.43 0.0262 0.0187
 Saturn -67010-12-19 22:04 J -22753626.84 -22753626.58 -22753626.32 0.0265 0.0017
 Saturn -67009-12-31 03:35 J -22753249.54 -22753249.35 -22753249.13 0.0269 0.0165
 Uranus -67008-01-22 17:59 J -22753226.90 -22753226.75 -22753226.58 0.0137 0.0106
 Uranus -67007-01-27 16:47 J -22752857.05 -22752856.80 -22752856.54 0.0136 0.0041
 Jupiter -67007-03-07 12:13 J -22752818.06 -22752817.99 -22752817.92 0.0518 0.0491
 Uranus -67006-02-01 02:09 J -22752487.64 -22752487.41 -22752487.16 0.0136 0.0045
 Uranus -67005-02-05 23:16 J -22752117.63 -22752117.53 -22752117.39 0.0135 0.0119
 Jupiter -67002-08-24 19:25 J -22750821.93 -22750821.69 -22750821.46 0.0509 0.0009

67TH MILLENNIUM BCE

This is a list of transits of Moon in the 67th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								

TIME

Pluto -66998-10-17 20:23 J -22749306.89 -22749306.65 -22749306.39 0.0064 0.0016

Saturn -66997-06-05 21:06 J -22749074.74 -22749074.62 -22749074.47 0.0302 0.0251

Saturn -66996-06-20 06:13 J -22748695.49 -22748695.24 -22748694.99 0.0298 0.0014

Neptune -66996-08-06 22:47 J -22748647.61 -22748647.55 -22748647.47 0.0089 0.0085

Saturn -66995-07-04 02:23 J -22748316.57 -22748316.40 -22748316.22 0.0293 0.0206

Neptune -66995-08-09 14:37 J -22748279.95 -22748279.89 -22748279.78 0.0089 0.0085

Neptune -66994-08-11 20:23 J -22747912.74 -22747912.65 -22747912.50 0.0089 0.0078

Neptune -66993-08-13 09:49 J -22747545.22 -22747545.09 -22747544.96 0.0089 0.0077

Neptune -66992-08-15 19:40 J -22747177.80 -22747177.68 -22747177.50 0.0089 0.0070

Neptune -66991-08-18 03:49 J -22746810.50 -22746810.34 -22746810.16 0.0089 0.0068

Neptune -66990-08-20 18:28 J -22746442.89 -22746442.73 -22746442.52 0.0089 0.0060

Jupiter -66990-08-29 05:16 J -22746434.47 -22746434.28 -22746434.09 0.0509 0.0258

Neptune -66989-08-21 23:01 J -22746075.72 -22746075.54 -22746075.33 0.0089 0.0059

Neptune -66988-08-24 16:33 J -22745708.01 -22745707.81 -22745707.59 0.0089 0.0051

Neptune -66987-08-26 20:23 J -22745340.84 -22745340.65 -22745340.43 0.0089 0.0050

Neptune -66986-08-29 12:42 J -22744973.19 -22744972.97 -22744972.72 0.0089 0.0041

Neptune -66985-08-30 19:40 J -22744605.89 -22744605.68 -22744605.45 0.0089 0.0041

Neptune -66984-09-02 08:09 J -22744238.39 -22744238.16 -22744237.90 0.0089 0.0031

Neptune -66983-09-04 20:09 J -22743870.88 -22743870.66 -22743870.42 0.0089 0.0030

Neptune -66982-09-07 03:35 J -22743503.60 -22743503.35 -22743503.09 0.0089 0.0021

Saturn -66982-12-02 12:42 J -22743416.99 -22743416.97 -22743416.91 0.0261 0.0257

Neptune -66981-09-08 19:40 J -22743135.92 -22743135.68 -22743135.43 0.0089 0.0021

Saturn -66981-12-13 12:28 J -22743040.20 -22743039.98 -22743039.75 0.0264 0.0096

Neptune -66980-09-11 00:13 J -22742768.74 -22742768.49 -22742768.23 0.0089 0.0011

Saturn -66980-12-25 23:01 J -22742662.77 -22742662.54 -22742662.30 0.0267 0.0084

Neptune -66979-09-13 18:13 J -22742400.98 -22742400.74 -22742400.47 0.0089 0.0012

Saturn -66978-01-07 14:09 J -22742284.95 -22742284.91 -22742284.85 0.0271 0.0265

Jupiter -66978-09-03 02:09 J -22742046.49 -22742046.41 -22742046.33 0.0507 0.0472

Neptune -66978-09-15 23:16 J -22742033.78 -22742033.53 -22742033.28 0.0089 0.0000

Neptune -66977-09-17 15:49 J -22741666.10 -22741665.84 -22741665.57 0.0089 0.0001
 Neptune -66976-09-19 23:45 J -22741298.75 -22741298.51 -22741298.26 0.0089 0.0011
 Neptune -66975-09-22 12:42 J -22740931.22 -22740930.97 -22740930.69 0.0089 0.0010
 Neptune -66974-09-25 01:25 J -22740563.67 -22740563.44 -22740563.19 0.0089 0.0021
 Neptune -66973-09-26 09:35 J -22740196.35 -22740196.10 -22740195.84 0.0089 0.0020
 Neptune -66972-09-29 02:09 J -22739828.63 -22739828.41 -22739828.16 0.0089 0.0032
 Neptune -66971-10-01 07:40 J -22739461.42 -22739461.18 -22739460.94 0.0089 0.0030
 Neptune -66970-10-04 02:09 J -22739093.63 -22739093.41 -22739093.17 0.0089 0.0042
 Neptune -66969-10-05 07:11 J -22738726.41 -22738726.20 -22738725.96 0.0089 0.0040
 Neptune -66968-10-08 00:13 J -22738358.68 -22738358.49 -22738358.25 0.0089 0.0052
 Mars -66968-12-20 23:30 J -22738284.71 -22738284.52 -22738284.34 0.1580 0.0179
 Saturn -66967-06-13 18:57 J -22738109.92 -22738109.71 -22738109.50 0.0300 0.0129
 Neptune -66967-10-10 09:06 J -22737991.31 -22737991.12 -22737990.89 0.0089 0.0050
 Saturn -66966-06-28 03:49 J -22737730.55 -22737730.34 -22737730.11 0.0296 0.0104
 Neptune -66966-10-12 22:33 J -22737623.73 -22737623.56 -22737623.34 0.0089 0.0062
 Neptune -66965-10-14 12:42 J -22737256.15 -22737255.97 -22737255.78 0.0089 0.0059
 Neptune -66964-10-16 21:21 J -22736888.75 -22736888.61 -22736888.43 0.0089 0.0071
 Uranus -66963-07-26 04:33 J -22736606.51 -22736606.31 -22736606.08 0.0142 0.0064
 Neptune -66963-10-19 14:52 J -22736521.02 -22736520.88 -22736520.69 0.0089 0.0068
 Uranus -66962-07-30 19:25 J -22736236.94 -22736236.69 -22736236.43 0.0143 0.0028
 Neptune -66962-10-21 20:52 J -22736153.72 -22736153.63 -22736153.50 0.0089 0.0080
 Uranus -66961-08-03 13:25 J -22735867.09 -22735866.94 -22735866.76 0.0143 0.0104
 Neptune -66961-10-23 16:33 J -22735785.93 -22735785.81 -22735785.66 0.0089 0.0076
 Jupiter -66960-02-20 01:54 J -22735666.55 -22735666.42 -22735666.28 0.0515 0.0414
 Neptune -66959-10-28 16:47 J -22735050.87 -22735050.80 -22735050.71 0.0089 0.0084
 Saturn -66952-12-08 14:52 J -22732453.07 -22732452.88 -22732452.69 0.0262 0.0175
 Saturn -66951-12-20 11:16 J -22732076.29 -22732076.03 -22732075.78 0.0265 0.0005
 Saturn -66949-01-01 20:52 J -22731698.80 -22731698.63 -22731698.44 0.0268 0.0180
 Jupiter -66948-02-24 19:40 J -22731278.91 -22731278.68 -22731278.45 0.0516 0.0145
 Saturn -66938-06-07 09:49 J -22727524.23 -22727524.09 -22727523.93 0.0302 0.0240

Saturn -66937-06-20 17:30 J -22727145.01 -22727144.77 -22727144.52 0.0298 0.0004
 Jupiter -66936-03-01 23:30 J -22726890.74 -22726890.52 -22726890.31 0.0517 0.0181
 Saturn -66936-07-04 16:47 J -22726765.95 -22726765.80 -22726765.63 0.0293 0.0217
 Jupiter -66931-08-19 19:25 J -22724893.87 -22724893.69 -22724893.49 0.0511 0.0300
 Mars -66929-06-21 22:18 J -22724221.76 -22724221.57 -22724221.37 0.1969 0.0715
 Uranus -66924-01-23 08:09 J -22722545.28 -22722545.16 -22722545.01 0.0137 0.0114
 Jupiter -66924-03-06 22:33 J -22722502.66 -22722502.56 -22722502.46 0.0518 0.0471
 Uranus -66923-01-28 06:13 J -22722175.51 -22722175.24 -22722174.98 0.0136 0.0024
 Saturn -66923-12-03 07:54 J -22721866.23 -22721866.17 -22721866.09 0.0261 0.0248
 Uranus -66922-02-01 15:21 J -22721806.09 -22721805.86 -22721805.61 0.0136 0.0046
 Saturn -66922-12-15 11:16 J -22721489.26 -22721489.03 -22721488.80 0.0263 0.0082
 Uranus -66921-02-06 11:45 J -22721436.10 -22721436.01 -22721435.88 0.0135 0.0123
 Saturn -66921-12-26 17:16 J -22721112.02 -22721111.78 -22721111.54 0.0267 0.0098
 Jupiter -66919-08-24 05:30 J -22720506.50 -22720506.27 -22720506.05 0.0510 0.0004
 Neptune -66913-02-10 00:13 J -22718510.54 -22718510.49 -22718510.39 0.0088 0.0084
 Neptune -66912-02-11 06:42 J -22718143.29 -22718143.22 -22718143.11 0.0088 0.0082
 Neptune -66911-02-14 01:40 J -22717775.54 -22717775.43 -22717775.27 0.0088 0.0076
 Neptune -66910-02-16 10:47 J -22717408.17 -22717408.05 -22717407.90 0.0088 0.0074
 Neptune -66909-02-19 02:23 J -22717040.56 -22717040.40 -22717040.21 0.0088 0.0067
 Pluto -66909-04-23 14:23 J -22716976.13 -22716975.90 -22716975.63 0.0080 0.0022
 Neptune -66908-02-20 15:21 J -22716673.01 -22716672.86 -22716672.67 0.0088 0.0065
 Saturn -66908-06-14 14:52 J -22716559.10 -22716558.88 -22716558.66 0.0300 0.0118
 Neptune -66907-02-23 01:54 J -22716305.61 -22716305.42 -22716305.20 0.0088 0.0058
 Saturn -66907-06-28 20:23 J -22716179.87 -22716179.65 -22716179.42 0.0296 0.0113
 Jupiter -66907-08-28 23:16 J -22716118.73 -22716118.53 -22716118.32 0.0508 0.0240
 Neptune -66906-02-25 19:11 J -22715937.89 -22715937.70 -22715937.50 0.0088 0.0057
 Neptune -66905-02-28 01:40 J -22715570.64 -22715570.43 -22715570.20 0.0088 0.0049
 Neptune -66904-03-01 21:35 J -22715202.82 -22715202.60 -22715202.38 0.0088 0.0048
 Neptune -66903-03-04 02:52 J -22714835.61 -22714835.38 -22714835.14 0.0088 0.0038
 Neptune -66902-03-06 21:35 J -22714467.83 -22714467.60 -22714467.34 0.0088 0.0038

Neptune -66901-03-08 05:30 J -22714100.50 -22714100.27 -22714100.02 0.0088 0.0027
 Neptune -66900-03-10 20:52 J -22713732.87 -22713732.63 -22713732.36 0.0088 0.0028
 Neptune -66899-03-13 09:21 J -22713365.35 -22713365.11 -22713364.86 0.0088 0.0018
 Neptune -66898-03-15 19:25 J -22712997.94 -22712997.69 -22712997.41 0.0088 0.0018
 Neptune -66897-03-17 11:59 J -22712630.25 -22712630.00 -22712629.75 0.0088 0.0006
 Neptune -66896-03-19 17:59 J -22712263.01 -22712262.75 -22712262.48 0.0088 0.0008
 Neptune -66895-03-22 12:42 J -22711895.22 -22711894.97 -22711894.71 0.0088 0.0005
 Jupiter -66895-09-02 05:16 J -22711731.39 -22711731.28 -22711731.18 0.0507 0.0451
 Neptune -66894-03-24 17:45 J -22711528.02 -22711527.76 -22711527.50 0.0088 0.0002
 Neptune -66893-03-26 11:45 J -22711160.26 -22711160.01 -22711159.74 0.0088 0.0014
 Saturn -66893-12-09 05:16 J -22710902.48 -22710902.28 -22710902.08 0.0262 0.0162
 Neptune -66892-03-28 18:28 J -22710792.97 -22710792.73 -22710792.47 0.0088 0.0012
 Saturn -66892-12-21 06:42 J -22710525.47 -22710525.22 -22710524.98 0.0265 0.0013
 Neptune -66891-03-31 09:21 J -22710425.35 -22710425.11 -22710424.84 0.0088 0.0025
 Saturn -66890-01-02 20:52 J -22710147.79 -22710147.63 -22710147.46 0.0268 0.0195
 Neptune -66890-04-02 20:52 J -22710057.87 -22710057.63 -22710057.39 0.0088 0.0022
 Neptune -66889-04-04 06:28 J -22709690.46 -22709690.23 -22709689.97 0.0088 0.0035
 Mars -66889-12-23 00:13 J -22709427.67 -22709427.49 -22709427.32 0.1582 0.0717
 Neptune -66888-04-06 22:18 J -22709322.80 -22709322.57 -22709322.33 0.0088 0.0032
 Neptune -66887-04-09 03:49 J -22708955.56 -22708955.34 -22708955.11 0.0088 0.0044
 Neptune -66886-04-11 22:18 J -22708587.80 -22708587.57 -22708587.35 0.0088 0.0041
 Neptune -66885-04-13 02:09 J -22708220.59 -22708220.41 -22708220.19 0.0088 0.0055
 Neptune -66884-04-15 19:40 J -22707852.88 -22707852.68 -22707852.45 0.0088 0.0051
 Neptune -66883-04-18 01:40 J -22707485.58 -22707485.43 -22707485.23 0.0088 0.0064
 Neptune -66882-04-20 16:18 J -22707118.02 -22707117.82 -22707117.62 0.0088 0.0059
 Neptune -66881-04-22 02:37 J -22706750.52 -22706750.39 -22706750.23 0.0088 0.0072
 Neptune -66880-04-24 11:30 J -22706383.17 -22706383.02 -22706382.83 0.0088 0.0068
 Uranus -66880-07-21 20:37 J -22706294.68 -22706294.64 -22706294.57 0.0142 0.0138
 Neptune -66879-04-27 02:23 J -22706015.48 -22706015.40 -22706015.28 0.0089 0.0081
 Saturn -66879-06-07 22:18 J -22705973.72 -22705973.57 -22705973.41 0.0302 0.0228

Uranus -66879-07-26 16:04 J -22705925.04 -22705924.83 -22705924.60 0.0142 0.0057
 Neptune -66878-04-29 07:40 J -22705648.31 -22705648.18 -22705648.05 0.0089 0.0076
 Saturn -66878-06-22 10:18 J -22705594.31 -22705594.07 -22705593.84 0.0298 0.0007
 Uranus -66878-07-31 05:45 J -22705555.50 -22705555.26 -22705555.00 0.0143 0.0023
 Jupiter -66877-02-20 06:13 J -22705351.37 -22705351.24 -22705351.10 0.0515 0.0423
 Saturn -66877-07-05 13:25 J -22705215.08 -22705214.94 -22705214.79 0.0294 0.0224
 Uranus -66877-08-04 00:57 J -22705185.56 -22705185.46 -22705185.31 0.0144 0.0122
 Neptune -66876-05-03 04:18 J -22704913.38 -22704913.32 -22704913.21 0.0089 0.0084
 Jupiter -66865-02-25 08:52 J -22700963.35 -22700963.13 -22700962.91 0.0516 0.0153
 Saturn -66864-12-04 08:23 J -22700315.24 -22700315.15 -22700315.04 0.0261 0.0237
 Saturn -66863-12-16 07:25 J -22699938.43 -22699938.19 -22699937.94 0.0263 0.0070
 Saturn -66862-12-28 07:40 J -22699561.40 -22699561.18 -22699560.93 0.0267 0.0114
 Jupiter -66853-03-01 09:35 J -22696575.33 -22696575.10 -22696574.87 0.0517 0.0176
 Saturn -66849-06-15 06:57 J -22695008.44 -22695008.21 -22695007.98 0.0300 0.0107
 Saturn -66848-06-29 08:37 J -22694629.36 -22694629.14 -22694628.91 0.0296 0.0119
 Jupiter -66848-08-19 03:06 J -22694578.54 -22694578.37 -22694578.19 0.0510 0.0306
 Mars -66842-12-18 05:59 J -22692266.36 -22692266.25 -22692266.13 0.1575 0.1291
 Jupiter -66841-03-06 05:01 J -22692187.38 -22692187.29 -22692187.19 0.0519 0.0466
 Uranus -66840-01-23 22:18 J -22691863.74 -22691863.57 -22691863.37 0.0137 0.0094
 Uranus -66839-01-28 19:25 J -22691493.95 -22691493.69 -22691493.42 0.0136 0.0028
 Uranus -66838-02-02 05:45 J -22691124.48 -22691124.26 -22691124.03 0.0136 0.0058
 Uranus -66837-02-07 01:54 J -22690754.47 -22690754.42 -22690754.36 0.0135 0.0132
 Jupiter -66836-08-23 23:01 J -22690190.77 -22690190.54 -22690190.31 0.0509 0.0014
 Neptune -66834-08-02 19:40 J -22689481.72 -22689481.68 -22689481.58 0.0089 0.0086
 Saturn -66834-12-11 00:57 J -22689351.66 -22689351.46 -22689351.25 0.0262 0.0149
 Saturn -66833-12-22 07:40 J -22688974.41 -22688974.18 -22688973.93 0.0265 0.0029
 Neptune -66832-08-06 14:37 J -22688746.98 -22688746.89 -22688746.74 0.0089 0.0079
 Saturn -66831-01-03 19:54 J -22688596.83 -22688596.67 -22688596.51 0.0268 0.0209
 Neptune -66831-08-08 20:52 J -22688379.69 -22688379.63 -22688379.53 0.0089 0.0084
 Neptune -66830-08-11 08:09 J -22688012.29 -22688012.16 -22688011.98 0.0089 0.0071

Neptune -66829-08-12 19:25 J -22687644.81 -22687644.69 -22687644.56 0.0089 0.0075
 Neptune -66828-08-15 01:54 J -22687277.58 -22687277.42 -22687277.21 0.0089 0.0062
 Neptune -66827-08-17 17:30 J -22686909.91 -22686909.77 -22686909.58 0.0089 0.0067
 Neptune -66826-08-19 21:49 J -22686542.78 -22686542.59 -22686542.38 0.0089 0.0054
 Neptune -66825-08-21 14:52 J -22686175.05 -22686174.88 -22686174.66 0.0089 0.0058
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 Mars -66605-12-24 11:16 J -22605695.16 -22605695.03 -22605694.91 0.1580 0.1127
 Jupiter -66604-02-27 12:28 J -22605630.21 -22605629.98 -22605629.75 0.0517 0.0102
 Jupiter -66599-08-18 07:25 J -22603632.34 -22603632.19 -22603632.02 0.0511 0.0345
 Saturn -66599-12-05 05:45 J -22603523.35 -22603523.26 -22603523.14 0.0261 0.0236
 Saturn -66598-12-16 23:01 J -22603146.78 -22603146.54 -22603146.29 0.0263 0.0063
 Saturn -66597-12-28 05:01 J -22602769.51 -22602769.29 -22602769.06 0.0266 0.0113
 Jupiter -66592-03-04 19:40 J -22601241.83 -22601241.68 -22601241.51 0.0518 0.0374
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 Neptune -66397-04-02 05:30 J -22529989.50 -22529989.27 -22529989.02 0.0088 0.0038
 Jupiter -66397-08-29 15:49 J -22529840.02 -22529839.84 -22529839.65 0.0508 0.0299

Neptune -66396-04-04 10:47 J -22529622.23 -22529622.05 -22529621.81 0.0088 0.0050
 Neptune -66395-04-07 03:06 J -22529254.57 -22529254.37 -22529254.12 0.0088 0.0048
 Neptune -66394-04-09 12:42 J -22528887.14 -22528886.97 -22528886.76 0.0088 0.0059
 Neptune -66393-04-10 23:45 J -22528519.69 -22528519.51 -22528519.28 0.0088 0.0057
 Saturn -66393-12-04 22:18 J -22528281.67 -22528281.57 -22528281.45 0.0261 0.0235
 Neptune -66392-04-13 13:40 J -22528152.07 -22528151.93 -22528151.74 0.0088 0.0068
 Saturn -66392-12-16 16:47 J -22527905.04 -22527904.80 -22527904.55 0.0263 0.0066
 Neptune -66391-04-15 20:09 J -22527784.82 -22527784.66 -22527784.46 0.0088 0.0065
 Saturn -66391-12-29 00:42 J -22527527.68 -22527527.47 -22527527.24 0.0266 0.0112
 Neptune -66390-04-18 13:54 J -22527417.04 -22527416.92 -22527416.77 0.0088 0.0075
 Neptune -66389-04-19 17:59 J -22527049.87 -22527049.75 -22527049.58 0.0088 0.0074
 Neptune -66388-04-22 12:42 J -22526682.05 -22526681.97 -22526681.88 0.0088 0.0083
 Neptune -66387-04-24 18:13 J -22526314.83 -22526314.74 -22526314.65 0.0088 0.0082
 Saturn -66378-06-15 17:30 J -22522975.98 -22522975.77 -22522975.56 0.0300 0.0133
 Saturn -66377-06-29 03:21 J -22522596.58 -22522596.36 -22522596.14 0.0296 0.0096
 Uranus -66376-07-24 14:37 J -22522206.03 -22522205.89 -22522205.72 0.0142 0.0112
 Uranus -66375-07-29 13:25 J -22521836.18 -22521835.94 -22521835.69 0.0142 0.0033
 Uranus -66374-08-02 23:16 J -22521466.76 -22521466.53 -22521466.30 0.0143 0.0053
 Jupiter -66367-02-20 04:04 J -22519073.50 -22519073.33 -22519073.15 0.0514 0.0350
 Saturn -66363-12-12 04:33 J -22517317.51 -22517317.31 -22517317.09 0.0262 0.0139
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 Saturn -66360-01-04 09:06 J -22516563.26 -22516563.12 -22516562.96 0.0268 0.0214
 Jupiter -66355-02-25 08:09 J -22514685.39 -22514685.16 -22514684.93 0.0515 0.0033
 Mars -66353-12-18 05:16 J -22513658.35 -22513658.28 -22513658.20 0.1571 0.1447
 Jupiter -66350-08-16 04:18 J -22512687.41 -22512687.32 -22512687.23 0.0512 0.0471
 Saturn -66349-06-09 02:23 J -22512389.54 -22512389.40 -22512389.24 0.0302 0.0234
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 Neptune -66344-07-26 19:11 J -22510515.71 -22510515.70 -22510515.66 0.0089 0.0088
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Neptune -66343-07-29 08:09 J -22510148.21 -22510148.16 -22510148.04 0.0089 0.0084
 Neptune -66342-07-31 16:47 J -22509780.89 -22509780.80 -22509780.69 0.0089 0.0080
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 Neptune -66338-08-09 12:42 J -22508311.13 -22508310.97 -22508310.78 0.0089 0.0064
 Jupiter -66338-08-20 11:16 J -22508300.23 -22508300.03 -22508299.82 0.0511 0.0224
 Neptune -66337-08-10 16:04 J -22507944.00 -22507943.83 -22507943.63 0.0089 0.0059
 Uranus -66336-01-27 04:33 J -22507774.53 -22507774.31 -22507774.08 0.0137 0.0060
 Neptune -66336-08-13 08:37 J -22507576.33 -22507576.14 -22507575.93 0.0089 0.0054
 Uranus -66335-01-31 19:54 J -22507404.94 -22507404.67 -22507404.40 0.0136 0.0007
 Neptune -66335-08-15 13:25 J -22507209.13 -22507208.94 -22507208.72 0.0089 0.0051
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 Saturn -66334-12-07 03:06 J -22506730.50 -22506730.37 -22506730.22 0.0261 0.0214
 Neptune -66333-08-19 11:59 J -22506474.21 -22506474.00 -22506473.78 0.0089 0.0042
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 Neptune -66332-08-21 20:09 J -22506106.88 -22506106.66 -22506106.40 0.0089 0.0037
 Saturn -66332-12-30 13:54 J -22505976.13 -22505975.92 -22505975.71 0.0267 0.0136
 Jupiter -66331-03-07 04:04 J -22505909.40 -22505909.33 -22505909.25 0.0517 0.0484
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 Neptune -66328-08-30 12:28 J -22504637.22 -22504636.98 -22504636.73 0.0089 0.0017
 Neptune -66327-09-02 05:01 J -22504269.54 -22504269.29 -22504269.02 0.0089 0.0014
 Jupiter -66326-08-25 05:45 J -22503912.49 -22503912.26 -22503912.03 0.0510 0.0009
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 Neptune -66325-09-06 00:13 J -22503534.76 -22503534.49 -22503534.23 0.0089 0.0003
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Neptune -66322-09-13 11:01 J -22502432.28 -22502432.04 -22502431.79 0.0089 0.0013
 Neptune -66321-09-14 15:49 J -22502065.09 -22502064.84 -22502064.58 0.0089 0.0016
 Mars -66321-12-26 03:06 J -22501962.41 -22501962.37 -22501962.33 0.1578 0.1538
 Neptune -66320-09-17 09:35 J -22501697.34 -22501697.10 -22501696.84 0.0089 0.0024
 Saturn -66319-06-17 14:23 J -22501424.12 -22501423.90 -22501423.69 0.0300 0.0104
 Neptune -66319-09-19 14:09 J -22501330.15 -22501329.91 -22501329.67 0.0089 0.0026
 Saturn -66318-07-01 23:30 J -22501044.73 -22501044.52 -22501044.31 0.0296 0.0126
 Neptune -66318-09-22 06:42 J -22500962.44 -22500962.22 -22500961.96 0.0089 0.0035
 Neptune -66317-09-23 13:54 J -22500595.13 -22500594.92 -22500594.68 0.0089 0.0036
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 Neptune -66315-09-28 14:37 J -22499860.09 -22499859.89 -22499859.66 0.0089 0.0045
 Jupiter -66314-08-29 12:13 J -22499525.18 -22499524.99 -22499524.79 0.0509 0.0268
 Neptune -66314-09-30 23:16 J -22499492.73 -22499492.53 -22499492.31 0.0089 0.0053
 Neptune -66313-10-02 16:04 J -22499125.01 -22499124.83 -22499124.61 0.0089 0.0055
 Neptune -66312-10-04 21:35 J -22498757.77 -22498757.60 -22498757.41 0.0089 0.0063
 Neptune -66311-10-07 16:18 J -22498389.98 -22498389.82 -22498389.62 0.0089 0.0063
 Neptune -66310-10-09 21:35 J -22498022.73 -22498022.60 -22498022.44 0.0089 0.0072
 Neptune -66309-10-11 14:52 J -22497655.01 -22497654.88 -22497654.69 0.0089 0.0071
 Neptune -66308-10-13 22:47 J -22497287.63 -22497287.55 -22497287.42 0.0089 0.0081
 Neptune -66307-10-16 12:42 J -22496920.08 -22496919.97 -22496919.84 0.0089 0.0079
 Neptune -66305-10-20 09:49 J -22496185.11 -22496185.09 -22496185.01 0.0089 0.0087
 Saturn -66304-12-13 09:21 J -22495766.33 -22495766.11 -22495765.87 0.0262 0.0118
 Saturn -66303-12-25 06:42 J -22495389.47 -22495389.22 -22495388.97 0.0265 0.0060
 Saturn -66301-01-06 17:01 J -22495011.90 -22495011.79 -22495011.67 0.0269 0.0236
 Uranus -66292-07-25 04:47 J -22491524.43 -22491524.30 -22491524.15 0.0142 0.0116
 Uranus -66291-07-30 03:06 J -22491154.61 -22491154.37 -22491154.12 0.0142 0.0024
 Saturn -66290-06-11 13:11 J -22490838.13 -22490837.95 -22490837.78 0.0302 0.0210
 Uranus -66290-08-03 12:28 J -22490785.19 -22490784.98 -22490784.75 0.0143 0.0065
 Saturn -66289-06-24 22:04 J -22490458.82 -22490458.58 -22490458.34 0.0298 0.0026
 Saturn -66288-07-08 22:47 J -22490079.66 -22490079.55 -22490079.41 0.0294 0.0247

Jupiter -66284-02-19 13:11 J -22488758.10 -22488757.95 -22488757.78 0.0514 0.0370
 Mars -66282-06-24 21:06 J -22487902.80 -22487902.62 -22487902.43 0.1975 0.0034
 Saturn -66275-12-08 09:35 J -22485179.25 -22485179.10 -22485178.94 0.0261 0.0197
 Saturn -66274-12-20 13:11 J -22484802.19 -22484801.95 -22484801.70 0.0263 0.0021
 Mars -66274-12-21 04:33 J -22484801.48 -22484801.31 -22484801.14 0.1571 0.0505
 Saturn -66273-12-31 19:40 J -22484424.89 -22484424.68 -22484424.47 0.0267 0.0156
 Jupiter -66272-02-24 11:01 J -22484370.28 -22484370.04 -22484369.79 0.0515 0.0061
 Jupiter -66267-08-15 02:09 J -22482372.42 -22482372.41 -22482372.38 0.0512 0.0510
 Neptune -66262-01-25 14:52 J -22480747.88 -22480747.88 -22480747.87 0.0088 0.0088
 Neptune -66260-01-29 19:11 J -22480012.77 -22480012.70 -22480012.58 0.0088 0.0081
 Jupiter -66260-03-01 06:42 J -22479982.43 -22479982.22 -22479982.00 0.0516 0.0187
 Saturn -66260-06-19 05:30 J -22479872.50 -22479872.27 -22479872.04 0.0300 0.0080
 Pluto -66260-10-21 14:52 J -22479748.11 -22479747.88 -22479747.62 0.0064 0.0014
 Neptune -66259-02-01 09:49 J -22479645.16 -22479645.09 -22479644.95 0.0088 0.0082
 Saturn -66259-07-03 11:01 J -22479493.25 -22479493.04 -22479492.83 0.0296 0.0150
 Neptune -66258-02-04 00:42 J -22479277.60 -22479277.47 -22479277.33 0.0088 0.0074
 Neptune -66257-02-06 10:47 J -22478910.19 -22478910.05 -22478909.89 0.0088 0.0073
 Neptune -66256-02-08 05:01 J -22478542.44 -22478542.29 -22478542.09 0.0088 0.0065
 Neptune -66255-02-10 11:59 J -22478175.16 -22478175.00 -22478174.79 0.0088 0.0064
 Jupiter -66255-08-19 23:16 J -22477984.73 -22477984.53 -22477984.33 0.0511 0.0261
 Neptune -66254-02-13 08:23 J -22477807.33 -22477807.15 -22477806.93 0.0088 0.0057
 Uranus -66253-01-24 00:13 J -22477462.53 -22477462.49 -22477462.44 0.0138 0.0135
 Neptune -66253-02-15 14:37 J -22477440.07 -22477439.89 -22477439.67 0.0088 0.0055
 Uranus -66252-01-27 20:37 J -22477092.85 -22477092.64 -22477092.41 0.0137 0.0066
 Neptune -66252-02-17 10:04 J -22477072.29 -22477072.08 -22477071.84 0.0088 0.0049
 Uranus -66251-02-01 10:47 J -22476723.31 -22476723.05 -22476722.78 0.0136 0.0028
 Neptune -66251-02-19 18:42 J -22476704.93 -22476704.72 -22476704.49 0.0088 0.0045
 Uranus -66250-02-06 03:35 J -22476353.51 -22476353.35 -22476353.16 0.0136 0.0097
 Neptune -66250-02-22 09:49 J -22476337.32 -22476337.09 -22476336.83 0.0088 0.0039
 Neptune -66249-02-24 22:18 J -22475969.78 -22475969.57 -22475969.31 0.0088 0.0035

Neptune -66248-02-26 09:35 J -22475602.35 -22475602.10 -22475601.84 0.0088 0.0029
 Jupiter -66248-03-06 08:37 J -22475594.26 -22475594.14 -22475594.01 0.0517 0.0443
 Neptune -66247-03-01 03:06 J -22475234.60 -22475234.37 -22475234.11 0.0088 0.0024
 Neptune -66246-03-03 10:18 J -22474867.33 -22474867.07 -22474866.81 0.0088 0.0020
 Neptune -66245-03-05 06:13 J -22474499.50 -22474499.24 -22474498.98 0.0088 0.0014
 Saturn -66245-12-14 08:23 J -22474215.38 -22474215.15 -22474214.90 0.0262 0.0097
 Neptune -66244-03-07 11:30 J -22474132.26 -22474132.02 -22474131.75 0.0088 0.0011
 Saturn -66244-12-26 10:18 J -22473838.30 -22473838.07 -22473837.83 0.0265 0.0080
 Neptune -66243-03-10 06:57 J -22473764.48 -22473764.21 -22473763.94 0.0088 0.0002
 Jupiter -66243-08-24 05:45 J -22473597.49 -22473597.26 -22473597.02 0.0510 0.0032
 Saturn -66242-01-08 00:42 J -22473460.54 -22473460.47 -22473460.39 0.0269 0.0255
 Neptune -66242-03-12 14:23 J -22473397.16 -22473396.90 -22473396.65 0.0088 0.0001
 Neptune -66241-03-14 05:30 J -22473029.54 -22473029.27 -22473029.00 0.0088 0.0007
 Neptune -66240-03-16 17:01 J -22472662.04 -22472661.79 -22472661.54 0.0088 0.0009
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 Neptune -66237-03-23 02:23 J -22471559.63 -22471559.40 -22471559.13 0.0088 0.0028
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 Neptune -66232-04-03 19:11 J -22469721.91 -22469721.70 -22469721.45 0.0088 0.0047
 Neptune -66231-04-06 05:30 J -22469354.44 -22469354.27 -22469354.05 0.0088 0.0058
 Saturn -66231-06-12 19:25 J -22469286.87 -22469286.69 -22469286.50 0.0302 0.0191
 Jupiter -66231-08-28 21:21 J -22469209.81 -22469209.61 -22469209.41 0.0509 0.0237
 Neptune -66230-04-08 15:21 J -22468987.04 -22468986.86 -22468986.63 0.0088 0.0057
 Saturn -66230-06-27 07:40 J -22468907.41 -22468907.18 -22468906.94 0.0298 0.0047
 Neptune -66229-04-10 07:11 J -22468619.35 -22468619.20 -22468619.02 0.0088 0.0066
 Saturn -66229-07-10 11:30 J -22468528.11 -22468528.02 -22468527.93 0.0294 0.0267
 Neptune -66228-04-12 13:25 J -22468252.11 -22468251.94 -22468251.75 0.0088 0.0064

Neptune -66227-04-15 07:11 J -22467884.31 -22467884.20 -22467884.03 0.0088 0.0075
 Neptune -66226-04-17 11:45 J -22467517.13 -22467517.01 -22467516.84 0.0088 0.0073
 Neptune -66225-04-19 05:59 J -22467149.33 -22467149.25 -22467149.15 0.0088 0.0083
 Neptune -66224-04-21 11:59 J -22466782.08 -22466782.00 -22466781.88 0.0088 0.0081
 Neptune -66222-04-26 12:42 J -22466047.01 -22466046.97 -22466046.93 0.0088 0.0087
 Saturn -66216-12-09 15:49 J -22463628.00 -22463627.84 -22463627.65 0.0261 0.0180
 Saturn -66215-12-21 15:35 J -22463251.11 -22463250.85 -22463250.59 0.0263 0.0003
 Saturn -66213-01-02 16:47 J -22462873.99 -22462873.80 -22462873.60 0.0267 0.0173
 Uranus -66208-07-25 14:09 J -22460843.07 -22460842.91 -22460842.73 0.0141 0.0103
 Uranus -66207-07-30 12:57 J -22460473.21 -22460472.96 -22460472.72 0.0142 0.0024
 Uranus -66206-08-03 22:04 J -22460103.79 -22460103.58 -22460103.35 0.0143 0.0064
 Saturn -66202-06-06 19:25 J -22458700.72 -22458700.69 -22458700.64 0.0303 0.0298
 Jupiter -66201-02-19 16:04 J -22458442.99 -22458442.83 -22458442.67 0.0514 0.0388
 Saturn -66201-06-20 10:04 J -22458321.32 -22458321.08 -22458320.84 0.0300 0.0060
 Saturn -66200-07-04 12:28 J -22457942.18 -22457941.98 -22457941.78 0.0296 0.0166
 Mars -66195-12-22 22:04 J -22455944.76 -22455944.58 -22455944.39 0.1573 0.0120
 Jupiter -66189-02-24 11:16 J -22454055.25 -22454055.03 -22454054.80 0.0515 0.0097
 Saturn -66187-12-04 14:37 J -22453040.95 -22453040.89 -22453040.82 0.0260 0.0251
 Saturn -66186-12-16 08:23 J -22452664.38 -22452664.15 -22452663.91 0.0262 0.0082
 Saturn -66185-12-27 15:06 J -22452287.09 -22452286.87 -22452286.64 0.0265 0.0095
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 Neptune -66180-07-26 05:30 J -22450615.36 -22450615.27 -22450615.14 0.0089 0.0080
 Neptune -66179-07-28 14:23 J -22450247.94 -22450247.90 -22450247.81 0.0089 0.0086
 Neptune -66178-07-30 22:33 J -22449880.69 -22449880.56 -22449880.40 0.0089 0.0073
 Jupiter -66177-02-29 16:33 J -22449667.04 -22449666.81 -22449666.58 0.0516 0.0152
 Neptune -66177-08-01 12:13 J -22449513.09 -22449512.99 -22449512.86 0.0089 0.0079
 Neptune -66176-08-03 16:04 J -22449145.98 -22449145.83 -22449145.64 0.0089 0.0065
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 Neptune -66174-08-08 11:59 J -22448411.17 -22448411.00 -22448410.79 0.0089 0.0056
 Neptune -66173-08-10 03:49 J -22448043.50 -22448043.34 -22448043.13 0.0089 0.0061

Saturn -66172-06-14 00:13 J -22447735.67 -22447735.49 -22447735.30 0.0302 0.0174
 Neptune -66172-08-12 09:49 J -22447676.27 -22447676.09 -22447675.86 0.0089 0.0048
 Jupiter -66172-08-18 21:49 J -22447669.78 -22447669.59 -22447669.40 0.0511 0.0294
 Pluto -66171-04-28 09:49 J -22447417.32 -22447417.09 -22447416.84 0.0080 0.0024
 Saturn -66171-06-28 14:52 J -22447356.10 -22447355.88 -22447355.65 0.0298 0.0062
 Neptune -66171-08-14 22:18 J -22447308.76 -22447308.57 -22447308.33 0.0089 0.0052
 Saturn -66170-07-12 17:16 J -22446976.84 -22446976.78 -22446976.70 0.0294 0.0281
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 Neptune -66169-08-18 16:33 J -22446574.02 -22446573.81 -22446573.57 0.0089 0.0042
 Uranus -66168-01-28 11:01 J -22446411.27 -22446411.04 -22446410.79 0.0137 0.0045
 Neptune -66168-08-21 07:40 J -22446206.42 -22446206.18 -22446205.94 0.0089 0.0028
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 Uranus -66166-02-06 18:42 J -22445671.84 -22445671.72 -22445671.57 0.0136 0.0114
 Neptune -66166-08-26 04:47 J -22445471.54 -22445471.30 -22445471.05 0.0089 0.0019
 Jupiter -66165-03-05 11:16 J -22445279.16 -22445279.03 -22445278.90 0.0517 0.0432
 Neptune -66165-08-27 08:37 J -22445104.38 -22445104.14 -22445103.90 0.0089 0.0024
 Neptune -66164-08-30 00:13 J -22444736.75 -22444736.49 -22444736.23 0.0089 0.0009
 Neptune -66163-09-01 07:11 J -22444369.44 -22444369.20 -22444368.95 0.0089 0.0013
 Neptune -66162-09-03 19:25 J -22444001.96 -22444001.69 -22444001.43 0.0089 0.0001
 Neptune -66161-09-05 07:25 J -22443634.44 -22443634.19 -22443633.94 0.0089 0.0003
 Jupiter -66160-08-23 17:01 J -22443282.01 -22443281.79 -22443281.57 0.0510 0.0061
 Neptune -66160-09-07 14:23 J -22443267.15 -22443266.90 -22443266.63 0.0089 0.0011
 Neptune -66159-09-10 06:42 J -22442899.47 -22442899.22 -22442898.97 0.0089 0.0007
 Neptune -66158-09-12 11:01 J -22442532.29 -22442532.04 -22442531.79 0.0089 0.0021
 Neptune -66157-09-14 04:47 J -22442164.55 -22442164.30 -22442164.05 0.0089 0.0017
 Saturn -66157-12-10 16:47 J -22442076.99 -22442076.80 -22442076.59 0.0260 0.0164
 Neptune -66156-09-16 09:06 J -22441797.35 -22441797.12 -22441796.88 0.0089 0.0031
 Saturn -66156-12-22 10:18 J -22441700.33 -22441700.07 -22441699.81 0.0263 0.0012
 Neptune -66155-09-19 00:57 J -22441429.70 -22441429.46 -22441429.19 0.0089 0.0027

Saturn -66154-01-03 13:25 J -22441323.11 -22441322.94 -22441322.76 0.0266 0.0187
 Neptune -66154-09-21 09:06 J -22441062.33 -22441062.12 -22441061.89 0.0089 0.0040
 Neptune -66153-09-22 21:06 J -22440694.85 -22440694.62 -22440694.37 0.0089 0.0036
 Neptune -66152-09-25 10:04 J -22440327.27 -22440327.08 -22440326.86 0.0089 0.0050
 Neptune -66151-09-27 17:16 J -22439959.99 -22439959.78 -22439959.54 0.0089 0.0046
 Neptune -66150-09-30 10:04 J -22439592.24 -22439592.08 -22439591.87 0.0089 0.0060
 Neptune -66149-10-01 14:52 J -22439225.07 -22439224.88 -22439224.66 0.0089 0.0055
 Jupiter -66148-08-28 00:57 J -22438894.67 -22438894.46 -22438894.24 0.0509 0.0220
 Neptune -66148-10-04 09:21 J -22438857.26 -22438857.11 -22438856.93 0.0089 0.0068
 Neptune -66147-10-06 14:52 J -22438490.04 -22438489.88 -22438489.70 0.0089 0.0064
 Neptune -66146-10-09 06:57 J -22438122.31 -22438122.21 -22438122.05 0.0089 0.0077
 Neptune -66145-10-10 15:49 J -22437754.95 -22437754.84 -22437754.67 0.0089 0.0074
 Neptune -66144-10-13 04:33 J -22437387.36 -22437387.31 -22437387.21 0.0089 0.0085
 Saturn -66143-06-07 17:16 J -22437149.85 -22437149.78 -22437149.68 0.0303 0.0285
 Neptune -66143-10-15 18:57 J -22437019.80 -22437019.71 -22437019.60 0.0089 0.0081
 Saturn -66142-06-22 05:59 J -22436770.49 -22436770.25 -22436770.00 0.0300 0.0049
 Saturn -66141-07-05 10:47 J -22436391.24 -22436391.05 -22436390.86 0.0296 0.0179
 Neptune -66141-10-19 20:09 J -22436284.66 -22436284.66 -22436284.62 0.0089 0.0089
 Saturn -66128-12-05 11:16 J -22431490.13 -22431490.03 -22431489.93 0.0260 0.0236
 Saturn -66127-12-17 10:18 J -22431113.30 -22431113.07 -22431112.83 0.0262 0.0066
 Saturn -66126-12-29 14:37 J -22430736.11 -22430735.89 -22430735.65 0.0265 0.0109
 Uranus -66124-07-26 01:54 J -22430161.56 -22430161.42 -22430161.25 0.0141 0.0109
 Uranus -66123-07-30 23:30 J -22429791.76 -22429791.52 -22429791.26 0.0142 0.0016
 Uranus -66122-08-04 08:37 J -22429422.34 -22429422.14 -22429421.92 0.0143 0.0073
 Jupiter -66118-02-18 22:04 J -22428127.72 -22428127.58 -22428127.45 0.0514 0.0410
 Mars -66116-12-24 20:23 J -22427087.76 -22427087.65 -22427087.54 0.1574 0.1266
 Saturn -66113-06-15 02:37 J -22426184.58 -22426184.39 -22426184.19 0.0302 0.0163
 Saturn -66112-06-29 14:52 J -22425805.12 -22425804.88 -22425804.65 0.0298 0.0074
 Saturn -66111-07-13 12:42 J -22425425.99 -22425425.97 -22425425.92 0.0294 0.0291
 Jupiter -66106-02-24 02:52 J -22423739.61 -22423739.38 -22423739.14 0.0515 0.0112

Saturn -66098-12-12 09:49 J -22420526.30 -22420526.09 -22420525.87 0.0260 0.0146
 Neptune -66097-01-27 07:40 J -22420480.26 -22420480.18 -22420480.06 0.0088 0.0081
 Saturn -66097-12-23 05:01 J -22420149.54 -22420149.29 -22420149.04 0.0263 0.0027
 Neptune -66096-01-28 21:06 J -22420112.66 -22420112.62 -22420112.50 0.0088 0.0085
 Saturn -66095-01-04 14:09 J -22419772.07 -22419771.91 -22419771.75 0.0266 0.0196
 Neptune -66095-01-31 13:25 J -22419745.05 -22419744.94 -22419744.77 0.0088 0.0074
 Neptune -66094-02-02 22:47 J -22419377.68 -22419377.55 -22419377.40 0.0088 0.0076
 Jupiter -66094-02-28 20:52 J -22419351.86 -22419351.63 -22419351.40 0.0516 0.0136
 Neptune -66093-02-05 18:13 J -22419009.91 -22419009.74 -22419009.55 0.0088 0.0064
 Neptune -66092-02-07 00:28 J -22418642.63 -22418642.48 -22418642.29 0.0088 0.0067
 Neptune -66091-02-09 21:06 J -22418274.81 -22418274.62 -22418274.40 0.0088 0.0055
 Neptune -66090-02-12 04:04 J -22417907.52 -22417907.33 -22417907.14 0.0088 0.0059
 Neptune -66089-02-14 22:04 J -22417539.80 -22417539.58 -22417539.33 0.0088 0.0045
 Jupiter -66089-08-18 14:09 J -22417354.08 -22417353.91 -22417353.74 0.0511 0.0318
 Neptune -66088-02-16 07:54 J -22417172.36 -22417172.17 -22417171.94 0.0088 0.0049
 Neptune -66087-02-18 22:33 J -22416804.80 -22416804.56 -22416804.30 0.0088 0.0036
 Neptune -66086-02-21 12:57 J -22416437.17 -22416436.96 -22416436.72 0.0088 0.0040
 Uranus -66085-01-24 23:59 J -22416099.59 -22416099.50 -22416099.36 0.0138 0.0124
 Neptune -66085-02-23 22:18 J -22416069.81 -22416069.57 -22416069.29 0.0088 0.0027
 Uranus -66084-01-28 23:16 J -22415729.76 -22415729.53 -22415729.29 0.0137 0.0053
 Neptune -66084-02-25 16:47 J -22415702.03 -22415701.80 -22415701.54 0.0088 0.0031
 Saturn -66084-06-08 08:37 J -22415599.23 -22415599.14 -22415599.03 0.0303 0.0276
 Uranus -66083-02-02 11:59 J -22415360.26 -22415360.00 -22415359.75 0.0137 0.0042
 Neptune -66083-02-27 23:01 J -22415334.79 -22415334.54 -22415334.27 0.0088 0.0016
 Saturn -66083-06-23 00:57 J -22415219.69 -22415219.46 -22415219.23 0.0300 0.0037
 Uranus -66082-02-07 06:42 J -22414990.34 -22414990.22 -22414990.06 0.0136 0.0111
 Neptune -66082-03-02 19:11 J -22414966.95 -22414966.70 -22414966.43 0.0088 0.0020
 Jupiter -66082-03-06 03:35 J -22414963.48 -22414963.35 -22414963.22 0.0517 0.0426
 Saturn -66082-07-07 09:49 J -22414840.25 -22414840.09 -22414839.90 0.0296 0.0192
 Neptune -66081-03-04 01:25 J -22414599.69 -22414599.44 -22414599.18 0.0088 0.0006

Neptune -66080-03-06 19:54 J -22414231.94 -22414231.67 -22414231.40 0.0088 0.0010
 Neptune -66079-03-09 04:33 J -22413864.56 -22413864.31 -22413864.05 0.0088 0.0004
 Neptune -66078-03-11 19:11 J -22413496.97 -22413496.70 -22413496.43 0.0088 0.0001
 Neptune -66077-03-13 08:23 J -22413129.39 -22413129.15 -22413128.90 0.0088 0.0014
 Jupiter -66077-08-23 00:13 J -22412966.73 -22412966.49 -22412966.25 0.0511 0.0074
 Neptune -66076-03-15 17:59 J -22412762.02 -22412761.75 -22412761.48 0.0088 0.0010
 Neptune -66075-03-18 10:47 J -22412394.28 -22412394.05 -22412393.79 0.0088 0.0025
 Neptune -66074-03-20 16:33 J -22412027.05 -22412026.81 -22412026.54 0.0088 0.0021
 Neptune -66073-03-22 11:59 J -22411659.23 -22411659.00 -22411658.75 0.0088 0.0034
 Neptune -66072-03-24 17:30 J -22411292.01 -22411291.77 -22411291.53 0.0088 0.0030
 Neptune -66071-03-27 11:01 J -22410924.25 -22410924.04 -22410923.79 0.0088 0.0044
 Neptune -66070-03-29 18:42 J -22410556.92 -22410556.72 -22410556.47 0.0088 0.0041
 Neptune -66069-03-31 09:21 J -22410189.31 -22410189.11 -22410188.88 0.0088 0.0053
 Saturn -66069-12-06 11:59 J -22409939.12 -22409939.00 -22409938.87 0.0260 0.0221
 Mars -66069-12-19 04:04 J -22409926.46 -22409926.33 -22409926.19 0.1569 0.1183
 Neptune -66068-04-02 21:49 J -22409821.78 -22409821.59 -22409821.36 0.0088 0.0050
 Saturn -66068-12-18 09:35 J -22409562.35 -22409562.10 -22409561.85 0.0262 0.0051
 Neptune -66067-04-05 06:57 J -22409454.38 -22409454.21 -22409454.00 0.0088 0.0062
 Saturn -66067-12-30 07:11 J -22409185.43 -22409185.20 -22409184.96 0.0265 0.0119
 Neptune -66066-04-07 23:45 J -22409086.69 -22409086.51 -22409086.31 0.0088 0.0058
 Neptune -66065-04-09 04:47 J -22408719.44 -22408719.30 -22408719.12 0.0088 0.0071
 Jupiter -66065-08-27 15:21 J -22408579.06 -22408578.86 -22408578.66 0.0510 0.0226
 Neptune -66064-04-11 23:45 J -22408351.68 -22408351.51 -22408351.34 0.0088 0.0067
 Neptune -66063-04-14 04:04 J -22407984.43 -22407984.33 -22407984.21 0.0088 0.0079
 Neptune -66062-04-16 21:21 J -22407616.74 -22407616.61 -22407616.47 0.0088 0.0075
 Neptune -66061-04-18 04:18 J -22407249.37 -22407249.32 -22407249.25 0.0088 0.0086
 Neptune -66060-04-20 17:16 J -22406881.84 -22406881.78 -22406881.65 0.0088 0.0083
 Saturn -66054-06-16 20:52 J -22404633.84 -22404633.63 -22404633.42 0.0302 0.0152
 Saturn -66053-06-30 05:01 J -22404254.53 -22404254.29 -22404254.05 0.0298 0.0082
 Uranus -66040-07-26 14:09 J -22399480.09 -22399479.91 -22399479.72 0.0141 0.0092

Uranus -66039-07-31 11:30 J -22399110.27 -22399110.02 -22399109.77 0.0142 0.0013
 Saturn -66039-12-13 02:09 J -22398975.61 -22398975.41 -22398975.18 0.0260 0.0130
 Uranus -66038-08-04 20:52 J -22398740.83 -22398740.63 -22398740.41 0.0143 0.0076
 Saturn -66038-12-25 03:21 J -22398598.59 -22398598.36 -22398598.11 0.0263 0.0039
 Saturn -66036-01-05 12:42 J -22398221.12 -22398220.97 -22398220.81 0.0266 0.0205
 Jupiter -66035-02-18 14:23 J -22397812.05 -22397811.90 -22397811.76 0.0514 0.0408
 Saturn -66025-06-09 02:52 J -22394048.48 -22394048.38 -22394048.27 0.0303 0.0270
 Saturn -66024-06-23 22:18 J -22393668.80 -22393668.57 -22393668.34 0.0300 0.0028
 Jupiter -66023-02-23 07:40 J -22393424.41 -22393424.18 -22393423.95 0.0515 0.0129
 Saturn -66023-07-08 06:57 J -22393289.38 -22393289.21 -22393289.03 0.0296 0.0200
 Neptune -66018-07-21 13:54 J -22391449.94 -22391449.92 -22391449.89 0.0089 0.0088
 Neptune -66017-07-23 01:40 J -22391082.46 -22391082.43 -22391082.36 0.0089 0.0087
 Neptune -66016-07-25 11:01 J -22390715.11 -22390715.04 -22390714.92 0.0089 0.0082
 Neptune -66015-07-27 18:28 J -22390347.82 -22390347.73 -22390347.60 0.0089 0.0080
 Neptune -66014-07-30 09:21 J -22389980.23 -22389980.11 -22389979.96 0.0089 0.0073
 Pluto -66014-10-23 23:45 J -22389894.77 -22389894.51 -22389894.25 0.0064 0.0001
 Neptune -66013-07-31 12:57 J -22389613.10 -22389612.96 -22389612.79 0.0089 0.0072
 Neptune -66012-08-03 05:30 J -22389245.42 -22389245.27 -22389245.08 0.0089 0.0065
 Jupiter -66011-02-28 12:42 J -22389036.20 -22389035.97 -22389035.74 0.0516 0.0112
 Neptune -66011-08-05 09:06 J -22388878.28 -22388878.12 -22388877.93 0.0089 0.0064
 Neptune -66010-08-08 00:42 J -22388510.66 -22388510.47 -22388510.26 0.0089 0.0058
 Saturn -66010-12-08 10:04 J -22388388.22 -22388388.08 -22388387.91 0.0260 0.0206
 Neptune -66009-08-09 06:42 J -22388143.39 -22388143.22 -22388143.00 0.0089 0.0055
 Saturn -66009-12-19 01:40 J -22388011.68 -22388011.43 -22388011.17 0.0262 0.0038
 Neptune -66008-08-11 17:30 J -22387775.97 -22387775.77 -22387775.52 0.0089 0.0048
 Saturn -66008-12-30 23:01 J -22387634.76 -22387634.54 -22387634.32 0.0265 0.0130
 Neptune -66007-08-14 04:47 J -22387408.49 -22387408.30 -22387408.06 0.0089 0.0045
 Neptune -66006-08-16 11:30 J -22387041.23 -22387041.02 -22387040.77 0.0089 0.0039
 Jupiter -66006-08-19 00:13 J -22387038.66 -22387038.49 -22387038.30 0.0512 0.0331
 Neptune -66005-08-18 03:49 J -22386673.57 -22386673.34 -22386673.11 0.0089 0.0035

Neptune -66004-08-20 07:25 J -22386306.43 -22386306.19 -22386305.95 0.0089 0.0029

Neptune -66003-08-23 00:28 J -22385938.71 -22385938.48 -22385938.22 0.0089 0.0026

Neptune -66002-08-25 04:33 J -22385571.54 -22385571.31 -22385571.05 0.0089 0.0020

Uranus -66001-01-25 10:47 J -22385418.13 -22385418.05 -22385417.93 0.0138 0.0128

Neptune -66001-08-26 19:54 J -22385203.92 -22385203.67 -22385203.40 0.0089 0.0015

66TH MILLENNIUM BCE

This is a list of transits of Moon in the 66th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-66000-01-29	11:01 J	-22385048.27	-22385048.04	-22385047.78	0.0137	0.0035	
Neptune	-66000-08-29	03:35 J	-22384836.59	-22384836.35	-22384836.10	0.0089	0.0009	
Uranus	-65999-02-02	23:30 J	-22384678.77	-22384678.52	-22384678.25	0.0137	0.0035	
Jupiter	-65999-03-05	08:09 J	-22384648.29	-22384648.16	-22384648.00	0.0517	0.0413	
Neptune	-65999-08-31	13:54 J	-22384469.18	-22384468.92	-22384468.65	0.0089	0.0006	
Uranus	-65998-02-07	20:09 J	-22384308.74	-22384308.66	-22384308.57	0.0136	0.0127	
Mars	-65998-06-23	09:21 J	-22384173.21	-22384173.11	-22384173.01	0.1978	0.1740	
Neptune	-65998-09-03	02:23 J	-22384101.64	-22384101.40	-22384101.15	0.0089	0.0001	
Neptune	-65997-09-04	08:23 J	-22383734.41	-22383734.15	-22383733.89	0.0089	0.0004	
Neptune	-65996-09-07	01:11 J	-22383366.70	-22383366.45	-22383366.20	0.0089	0.0010	
Saturn	-65995-06-17	08:09 J	-22383083.37	-22383083.16	-22383082.94	0.0302	0.0149	
Neptune	-65995-09-09	05:16 J	-22382999.53	-22382999.28	-22382999.03	0.0089	0.0015	
Saturn	-65994-07-01	17:59 J	-22382703.98	-22382703.75	-22382703.52	0.0298	0.0089	
Jupiter	-65994-08-23	13:11 J	-22382651.16	-22382650.95	-22382650.73	0.0510	0.0081	

Neptune -65994-09-11 22:47 J -22382631.79 -22382631.55 -22382631.29 0.0089 0.0020
 Neptune -65993-09-13 04:04 J -22382264.56 -22382264.33 -22382264.09 0.0089 0.0025
 Neptune -65992-09-15 19:25 J -22381896.93 -22381896.69 -22381896.43 0.0089 0.0029
 Neptune -65991-09-18 04:18 J -22381529.54 -22381529.32 -22381529.09 0.0089 0.0035
 Neptune -65990-09-20 14:52 J -22381162.11 -22381161.88 -22381161.64 0.0089 0.0039
 Mars -65990-12-22 13:25 J -22381069.14 -22381068.94 -22381068.74 0.1570 0.0159
 Neptune -65989-09-22 04:04 J -22380794.53 -22380794.33 -22380794.10 0.0089 0.0046
 Neptune -65988-09-24 10:33 J -22380427.27 -22380427.06 -22380426.83 0.0089 0.0049
 Neptune -65987-09-27 04:04 J -22380059.51 -22380059.33 -22380059.11 0.0089 0.0055
 Neptune -65986-09-29 08:23 J -22379692.33 -22379692.15 -22379691.94 0.0089 0.0057
 Neptune -65985-10-01 02:23 J -22379324.55 -22379324.40 -22379324.19 0.0089 0.0064
 Neptune -65984-10-03 08:37 J -22378957.30 -22378957.14 -22378956.96 0.0089 0.0066
 Neptune -65983-10-06 00:28 J -22378589.62 -22378589.48 -22378589.32 0.0089 0.0073
 Jupiter -65982-08-28 06:13 J -22378263.45 -22378263.24 -22378263.03 0.0509 0.0226
 Neptune -65982-10-08 10:04 J -22378222.19 -22378222.08 -22378221.93 0.0089 0.0075
 Neptune -65981-10-09 21:06 J -22377854.72 -22377854.62 -22377854.50 0.0089 0.0081
 Neptune -65980-10-12 11:45 J -22377487.09 -22377487.01 -22377486.91 0.0089 0.0082
 Saturn -65980-12-14 01:25 J -22377424.66 -22377424.44 -22377424.23 0.0260 0.0117
 Saturn -65979-12-26 02:52 J -22377047.62 -22377047.38 -22377047.13 0.0263 0.0052
 Saturn -65977-01-07 05:45 J -22376670.40 -22376670.26 -22376670.10 0.0266 0.0214
 Saturn -65966-06-10 23:16 J -22372497.63 -22372497.53 -22372497.41 0.0303 0.0266
 Saturn -65965-06-24 16:47 J -22372118.04 -22372117.80 -22372117.56 0.0300 0.0020
 Saturn -65964-07-08 20:52 J -22371738.80 -22371738.63 -22371738.45 0.0296 0.0211
 Uranus -65956-07-27 06:42 J -22368798.39 -22368798.22 -22368798.03 0.0141 0.0095
 Uranus -65955-08-01 03:35 J -22368428.60 -22368428.35 -22368428.10 0.0142 0.0001
 Uranus -65954-08-05 12:57 J -22368059.15 -22368058.96 -22368058.76 0.0143 0.0088
 Jupiter -65952-02-17 17:16 J -22367496.91 -22367496.78 -22367496.65 0.0513 0.0424
 Saturn -65951-12-09 02:52 J -22366837.56 -22366837.38 -22366837.21 0.0260 0.0192
 Saturn -65950-12-20 16:47 J -22366461.05 -22366460.80 -22366460.54 0.0262 0.0025
 Saturn -65949-12-31 19:54 J -22366083.87 -22366083.67 -22366083.46 0.0265 0.0141

Jupiter -65940-02-23 00:13 J -22363108.71 -22363108.49 -22363108.27 0.0515 0.0155
 Saturn -65936-06-17 23:01 J -22361532.75 -22361532.54 -22361532.33 0.0302 0.0142
 Neptune -65935-01-21 08:23 J -22361315.18 -22361315.15 -22361315.07 0.0088 0.0086
 Saturn -65935-07-02 12:42 J -22361153.18 -22361152.97 -22361152.75 0.0298 0.0101
 Neptune -65933-01-26 08:23 J -22360580.25 -22360580.15 -22360580.00 0.0088 0.0079
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 Neptune -65928-02-06 08:37 J -22358742.30 -22358742.14 -22358741.93 0.0088 0.0064
 Jupiter -65928-02-27 17:45 J -22358721.00 -22358720.76 -22358720.52 0.0516 0.0099
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Saturn -65889-01-02 22:04 J -22344532.78 -22344532.58 -22344532.37 0.0265 0.0151
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 Uranus -65832-01-30 18:13 J -22323685.00 -22323684.74 -22323684.49 0.0137 0.0018
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Saturn -65274-12-09 09:06 J -22119563.25 -22119563.12 -22119562.97 0.0259 0.0213
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 Neptune -65271-02-05 08:52 J -22118774.36 -22118774.13 -22118773.89 0.0088 0.0040
 Neptune -65270-02-07 14:37 J -22118407.09 -22118406.89 -22118406.64 0.0088 0.0045
 Neptune -65269-02-10 10:47 J -22118039.29 -22118039.05 -22118038.79 0.0088 0.0031
 Neptune -65268-02-11 18:28 J -22117671.97 -22117671.73 -22117671.49 0.0088 0.0033
 Neptune -65267-02-14 11:16 J -22117304.28 -22117304.03 -22117303.75 0.0088 0.0021
 Neptune -65266-02-16 22:47 J -22116936.79 -22116936.55 -22116936.30 0.0088 0.0022
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 Jupiter -65264-02-22 04:18 J -22116200.53 -22116200.32 -22116200.10 0.0514 0.0187
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 Uranus -65032-08-02 20:23 J -22031300.89 -22031300.65 -22031300.41 0.0141 0.0006
 Neptune -65031-07-23 10:18 J -22030946.23 -22030946.07 -22030945.88 0.0089 0.0064
 Uranus -65031-08-07 07:11 J -22030931.40 -22030931.20 -22030930.96 0.0141 0.0074
 Pluto -65031-10-29 09:21 J -22030848.36 -22030848.11 -22030847.85 0.0064 0.0006
 Neptune -65030-07-25 16:04 J -22030578.99 -22030578.83 -22030578.64 0.0089 0.0066
 Neptune -65029-07-27 07:54 J -22030211.36 -22030211.17 -22030210.96 0.0089 0.0054
 Neptune -65028-07-29 10:47 J -22029844.23 -22029844.05 -22029843.84 0.0089 0.0057
 Neptune -65027-08-01 03:49 J -22029476.56 -22029476.34 -22029476.12 0.0089 0.0045
 Neptune -65026-08-03 07:40 J -22029109.38 -22029109.18 -22029108.96 0.0089 0.0047
 Neptune -65025-08-04 21:35 J -22028741.83 -22028741.60 -22028741.35 0.0089 0.0034
 Neptune -65024-08-07 05:30 J -22028374.48 -22028374.27 -22028374.04 0.0089 0.0036

Saturn -65023-06-20 23:59 J -22028056.71 -22028056.50 -22028056.29 0.0303 0.0144
 Neptune -65023-08-09 15:35 J -22028007.10 -22028006.85 -22028006.60 0.0089 0.0024
 Saturn -65022-07-05 15:35 J -22027677.08 -22027676.85 -22027676.62 0.0300 0.0113
 Neptune -65022-08-12 04:47 J -22027639.53 -22027639.30 -22027639.06 0.0089 0.0025
 Neptune -65021-08-13 10:18 J -22027272.33 -22027272.07 -22027271.82 0.0089 0.0013
 Neptune -65020-08-16 02:37 J -22026904.63 -22026904.39 -22026904.14 0.0089 0.0015
 Neptune -65019-08-18 06:13 J -22026537.49 -22026537.24 -22026536.99 0.0089 0.0003
 Neptune -65018-08-20 23:01 J -22026169.80 -22026169.54 -22026169.29 0.0089 0.0003
 Neptune -65017-08-22 03:35 J -22025802.59 -22025802.35 -22025802.10 0.0089 0.0008
 Neptune -65016-08-24 17:01 J -22025435.05 -22025434.79 -22025434.53 0.0089 0.0007
 Jupiter -65015-02-21 10:33 J -22025254.28 -22025254.06 -22025253.83 0.0514 0.0205
 Neptune -65015-08-27 02:09 J -22025067.64 -22025067.41 -22025067.16 0.0089 0.0018
 Neptune -65014-08-29 11:16 J -22024700.28 -22024700.03 -22024699.77 0.0089 0.0017
 Neptune -65013-08-31 01:25 J -22024332.66 -22024332.44 -22024332.19 0.0089 0.0029
 Neptune -65012-09-02 06:42 J -22023965.47 -22023965.22 -22023964.98 0.0089 0.0029
 Mars -65012-12-22 14:52 J -22023854.05 -22023853.88 -22023853.71 0.1566 0.0567
 Neptune -65011-09-04 23:45 J -22023597.73 -22023597.51 -22023597.27 0.0089 0.0040
 Neptune -65010-09-07 03:21 J -22023230.56 -22023230.36 -22023230.11 0.0089 0.0039
 Neptune -65009-09-08 20:52 J -22022862.85 -22022862.63 -22022862.42 0.0089 0.0049
 Saturn -65009-12-08 04:47 J -22022772.39 -22022772.30 -22022772.19 0.0258 0.0235
 Neptune -65008-09-11 02:23 J -22022495.59 -22022495.40 -22022495.18 0.0089 0.0049
 Saturn -65008-12-19 14:09 J -22022396.16 -22022395.91 -22022395.67 0.0259 0.0087
 Neptune -65007-09-13 15:35 J -22022128.02 -22022127.85 -22022127.63 0.0089 0.0059
 Saturn -65007-12-31 05:45 J -22022019.50 -22022019.26 -22022019.02 0.0261 0.0064
 Neptune -65006-09-16 01:54 J -22021760.58 -22021760.42 -22021760.22 0.0089 0.0060
 Saturn -65005-01-12 10:18 J -22021642.18 -22021642.07 -22021641.95 0.0264 0.0230
 Neptune -65005-09-17 10:47 J -22021393.20 -22021393.05 -22021392.87 0.0089 0.0069
 Neptune -65004-09-20 02:09 J -22021025.55 -22021025.41 -22021025.23 0.0089 0.0069
 Jupiter -65003-02-26 04:33 J -22020866.54 -22020866.31 -22020866.08 0.0515 0.0126
 Neptune -65003-09-22 07:40 J -22020658.30 -22020658.18 -22020658.05 0.0089 0.0078

Neptune -65002-09-25 01:11 J -22020290.55 -22020290.45 -22020290.31 0.0089 0.0078

Neptune -65001-09-26 05:16 J -22019923.31 -22019923.28 -22019923.20 0.0089 0.0087

65TH MILLENNIUM BCE

This is a list of transits of Moon in the 65th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-65000-09-28 22:18 J	-22019555.58	-22019555.57	-22019555.50	0.0089	0.0088		
Jupiter	-64998-08-17 22:18 J	-22018867.73	-22018867.57	-22018867.41	0.0512	0.0350		
Uranus	-64994-01-27 11:45 J	-22017609.07	-22017609.01	-22017608.93	0.0139	0.0133		
Saturn	-64994-06-14 01:25 J	-22017471.55	-22017471.44	-22017471.32	0.0304	0.0263		
Uranus	-64993-02-01 04:04 J	-22017239.56	-22017239.33	-22017239.08	0.0138	0.0047		
Saturn	-64993-06-27 23:45 J	-22017091.75	-22017091.51	-22017091.28	0.0302	0.0005		
Uranus	-64992-02-05 03:21 J	-22016869.61	-22016869.36	-22016869.11	0.0138	0.0049		
Saturn	-64992-07-12 14:09 J	-22016712.02	-22016711.91	-22016711.77	0.0299	0.0249		
Uranus	-64991-02-09 15:35 J	-22016499.94	-22016499.85	-22016499.72	0.0137	0.0123		
Jupiter	-64991-03-03 12:13 J	-22016478.13	-22016477.99	-22016477.84	0.0516	0.0395		
Mars	-64988-06-27 10:47 J	-22015266.23	-22015266.05	-22015265.87	0.1981	0.0319		
Jupiter	-64986-08-22 11:01 J	-22014480.28	-22014480.04	-22014479.81	0.0511	0.0091		
Saturn	-64979-12-14 17:16 J	-22011808.96	-22011808.78	-22011808.57	0.0259	0.0157		
Saturn	-64978-12-26 12:42 J	-22011432.22	-22011431.97	-22011431.72	0.0261	0.0005		
Saturn	-64976-01-06 06:13 J	-22011055.45	-22011055.24	-22011055.02	0.0263	0.0153		
Jupiter	-64974-08-26 22:33 J	-22010092.77	-22010092.56	-22010092.35	0.0511	0.0155		
Saturn	-64964-06-21 15:21 J	-22006506.08	-22006505.86	-22006505.63	0.0303	0.0126		

Saturn -64963-07-06 04:04 J -22006126.54 -22006126.33 -22006126.10 0.0300 0.0133
 Jupiter -64962-08-31 16:33 J -22005704.91 -22005704.81 -22005704.69 0.0509 0.0450
 Neptune -64954-01-09 15:21 J -22003016.90 -22003016.86 -22003016.81 0.0088 0.0087
 Neptune -64952-01-13 16:33 J -22002281.91 -22002281.81 -22002281.67 0.0088 0.0079
 Neptune -64951-01-16 02:37 J -22001914.45 -22001914.39 -22001914.28 0.0088 0.0084
 Neptune -64950-01-18 16:47 J -22001546.96 -22001546.80 -22001546.63 0.0088 0.0070
 Saturn -64950-12-09 22:04 J -22001221.70 -22001221.58 -22001221.45 0.0258 0.0224
 Neptune -64949-01-21 07:25 J -22001179.30 -22001179.19 -22001179.02 0.0088 0.0074
 Uranus -64949-07-29 13:11 J -22000989.13 -22000988.95 -22000988.74 0.0140 0.0088
 Saturn -64949-12-20 08:52 J -22000845.37 -22000845.13 -22000844.89 0.0259 0.0076
 Neptune -64948-01-22 17:45 J -22000811.96 -22000811.76 -22000811.56 0.0088 0.0060
 Uranus -64948-08-03 06:57 J -22000619.44 -22000619.21 -22000618.96 0.0141 0.0015
 Saturn -64947-01-01 07:11 J -22000468.42 -22000468.20 -22000467.96 0.0262 0.0078
 Neptune -64947-01-25 12:42 J -22000444.13 -22000443.97 -22000443.77 0.0088 0.0064
 Uranus -64947-08-07 16:33 J -22000250.00 -22000249.81 -22000249.60 0.0141 0.0087
 Saturn -64946-01-13 11:59 J -22000091.08 -22000091.00 -22000090.89 0.0264 0.0244
 Neptune -64946-01-27 19:25 J -22000076.89 -22000076.69 -22000076.46 0.0088 0.0050
 Neptune -64945-01-30 16:18 J -21999709.01 -21999708.82 -21999708.60 0.0088 0.0054
 Neptune -64944-01-31 23:16 J -21999341.75 -21999341.53 -21999341.29 0.0088 0.0040
 Neptune -64943-02-03 18:13 J -21998973.96 -21998973.74 -21998973.49 0.0088 0.0043
 Neptune -64942-02-06 03:49 J -21998606.57 -21998606.34 -21998606.09 0.0088 0.0030
 Pluto -64942-05-05 23:45 J -21998517.72 -21998517.51 -21998517.28 0.0080 0.0039
 Neptune -64941-02-08 18:28 J -21998238.98 -21998238.73 -21998238.47 0.0088 0.0033
 Neptune -64940-02-10 08:23 J -21997871.39 -21997871.15 -21997870.89 0.0088 0.0020
 Neptune -64939-02-12 18:42 J -21997503.98 -21997503.72 -21997503.45 0.0088 0.0022
 Neptune -64938-02-15 13:11 J -21997136.21 -21997135.95 -21997135.69 0.0088 0.0008
 Neptune -64937-02-17 19:54 J -21996768.93 -21996768.67 -21996768.40 0.0088 0.0011
 Neptune -64936-02-19 16:18 J -21996401.08 -21996400.82 -21996400.55 0.0088 0.0003
 Neptune -64935-02-21 22:33 J -21996033.82 -21996033.56 -21996033.31 0.0088 0.0002
 Saturn -64935-06-15 00:28 J -21995920.60 -21995920.48 -21995920.33 0.0304 0.0247

Neptune -64934-02-24 17:45 J -21995666.03 -21995665.76 -21995665.49 0.0088 0.0012
 Saturn -64934-06-29 23:59 J -21995540.74 -21995540.50 -21995540.27 0.0302 0.0019
 Neptune -64933-02-27 02:09 J -21995298.66 -21995298.41 -21995298.16 0.0088 0.0011
 Saturn -64933-07-13 12:13 J -21995161.09 -21995160.99 -21995160.88 0.0299 0.0268
 Mars -64933-12-24 12:42 J -21994997.16 -21994996.97 -21994996.78 0.1567 0.0204
 Jupiter -64932-02-20 14:09 J -21994939.13 -21994938.91 -21994938.70 0.0514 0.0217
 Neptune -64932-02-28 17:01 J -21994931.04 -21994930.79 -21994930.51 0.0088 0.0023
 Neptune -64931-03-03 05:59 J -21994563.49 -21994563.25 -21994563.00 0.0088 0.0022
 Neptune -64930-03-05 16:18 J -21994196.05 -21994195.82 -21994195.55 0.0088 0.0035
 Neptune -64929-03-07 09:49 J -21993828.31 -21993828.09 -21993827.83 0.0088 0.0033
 Neptune -64928-03-09 16:33 J -21993461.01 -21993460.81 -21993460.55 0.0088 0.0045
 Neptune -64927-03-12 12:13 J -21993093.20 -21993092.99 -21993092.74 0.0088 0.0043
 Neptune -64926-03-14 17:45 J -21992725.94 -21992725.76 -21992725.53 0.0088 0.0054
 Neptune -64925-03-16 12:42 J -21992358.16 -21992357.97 -21992357.74 0.0088 0.0054
 Neptune -64924-03-18 19:54 J -21991990.81 -21991990.67 -21991990.47 0.0088 0.0065
 Neptune -64923-03-21 11:30 J -21991623.20 -21991623.02 -21991622.82 0.0088 0.0063
 Neptune -64922-03-23 23:01 J -21991255.67 -21991255.54 -21991255.39 0.0088 0.0073
 Neptune -64921-03-25 09:21 J -21990888.24 -21990888.11 -21990887.94 0.0088 0.0073
 Jupiter -64920-02-25 20:09 J -21990550.89 -21990550.66 -21990550.44 0.0515 0.0104
 Neptune -64920-03-28 02:23 J -21990520.49 -21990520.40 -21990520.30 0.0088 0.0082
 Saturn -64920-12-15 19:40 J -21990257.88 -21990257.68 -21990257.46 0.0259 0.0145
 Neptune -64919-03-30 08:23 J -21990153.22 -21990153.15 -21990153.03 0.0088 0.0083
 Saturn -64919-12-27 09:06 J -21989881.38 -21989881.12 -21989880.85 0.0261 0.0008
 Saturn -64917-01-08 02:37 J -21989504.57 -21989504.39 -21989504.19 0.0263 0.0168
 Jupiter -64915-08-17 09:21 J -21988552.27 -21988552.11 -21988551.93 0.0513 0.0362
 Uranus -64910-01-27 19:11 J -21986927.79 -21986927.70 -21986927.59 0.0139 0.0128
 Uranus -64909-02-01 13:25 J -21986558.18 -21986557.94 -21986557.70 0.0138 0.0040
 Uranus -64908-02-05 11:16 J -21986188.28 -21986188.03 -21986187.77 0.0138 0.0041
 Jupiter -64908-03-02 14:52 J -21986163.04 -21986162.88 -21986162.69 0.0516 0.0362
 Saturn -64905-06-22 08:23 J -21984955.37 -21984955.15 -21984954.91 0.0303 0.0105

Saturn -64904-07-06 23:45 J -21984575.71 -21984575.51 -21984575.30 0.0300 0.0153
 Jupiter -64903-08-21 21:21 J -21984164.83 -21984164.61 -21984164.39 0.0511 0.0105
 Jupiter -64891-08-26 16:04 J -21979777.05 -21979776.83 -21979776.61 0.0510 0.0144
 Saturn -64891-12-10 18:28 J -21979670.86 -21979670.73 -21979670.58 0.0258 0.0213
 Saturn -64890-12-22 11:45 J -21979294.24 -21979294.01 -21979293.77 0.0260 0.0064
 Saturn -64888-01-02 11:30 J -21978917.25 -21978917.02 -21978916.78 0.0262 0.0092
 Saturn -64887-01-14 10:47 J -21978540.07 -21978540.05 -21978540.00 0.0265 0.0262
 Jupiter -64879-08-30 19:25 J -21975389.80 -21975389.69 -21975389.57 0.0509 0.0438
 Saturn -64876-06-16 03:49 J -21974369.49 -21974369.34 -21974369.18 0.0304 0.0224
 Saturn -64875-06-30 23:01 J -21973989.78 -21973989.54 -21973989.29 0.0302 0.0039
 Saturn -64874-07-15 06:42 J -21973610.27 -21973610.22 -21973610.13 0.0298 0.0287
 Neptune -64872-07-11 12:28 J -21972883.03 -21972882.98 -21972882.89 0.0089 0.0085
 Neptune -64871-07-14 02:52 J -21972515.42 -21972515.38 -21972515.28 0.0089 0.0086
 Neptune -64870-07-16 11:01 J -21972148.15 -21972148.04 -21972147.91 0.0089 0.0077
 Neptune -64869-07-17 20:37 J -21971780.76 -21971780.64 -21971780.50 0.0089 0.0076
 Neptune -64868-07-20 09:06 J -21971413.27 -21971413.12 -21971412.95 0.0089 0.0067
 Neptune -64867-07-22 13:54 J -21971046.06 -21971045.92 -21971045.73 0.0089 0.0067
 Neptune -64866-07-25 06:42 J -21970678.41 -21970678.22 -21970678.03 0.0089 0.0057
 Neptune -64865-07-26 09:21 J -21970311.28 -21970311.11 -21970310.90 0.0089 0.0058
 Uranus -64865-07-30 01:11 J -21970307.62 -21970307.45 -21970307.26 0.0140 0.0096
 Neptune -64864-07-29 01:40 J -21969943.62 -21969943.43 -21969943.19 0.0089 0.0049
 Uranus -64864-08-03 19:54 J -21969937.91 -21969937.67 -21969937.42 0.0141 0.0006
 Neptune -64863-07-31 06:28 J -21969576.42 -21969576.23 -21969576.00 0.0089 0.0049
 Uranus -64863-08-08 04:47 J -21969568.49 -21969568.30 -21969568.08 0.0141 0.0083
 Neptune -64862-08-02 20:09 J -21969208.88 -21969208.66 -21969208.41 0.0089 0.0037
 Neptune -64861-08-04 05:16 J -21968841.50 -21968841.28 -21968841.05 0.0089 0.0037
 Saturn -64861-12-16 18:13 J -21968706.96 -21968706.74 -21968706.52 0.0259 0.0133
 Neptune -64860-08-06 13:40 J -21968474.17 -21968473.93 -21968473.67 0.0089 0.0027
 Saturn -64860-12-28 06:57 J -21968330.46 -21968330.21 -21968329.96 0.0261 0.0020
 Neptune -64859-08-09 03:06 J -21968106.60 -21968106.37 -21968106.13 0.0089 0.0028

Saturn -64858-01-09 07:11 J -21967953.36 -21967953.20 -21967953.02 0.0264 0.0187
 Neptune -64858-08-11 07:25 J -21967739.43 -21967739.19 -21967738.93 0.0089 0.0017
 Neptune -64857-08-13 00:13 J -21967371.73 -21967371.49 -21967371.24 0.0089 0.0017
 Neptune -64856-08-15 03:49 J -21967004.59 -21967004.34 -21967004.09 0.0089 0.0005
 Neptune -64855-08-17 20:09 J -21966636.91 -21966636.66 -21966636.39 0.0089 0.0006
 Neptune -64854-08-20 01:54 J -21966269.67 -21966269.42 -21966269.17 0.0089 0.0006
 Mars -64854-12-27 18:13 J -21966139.84 -21966139.74 -21966139.64 0.1567 0.1348
 Neptune -64853-08-21 14:52 J -21965902.14 -21965901.88 -21965901.61 0.0089 0.0005
 Neptune -64852-08-24 01:11 J -21965534.69 -21965534.45 -21965534.21 0.0089 0.0016
 Neptune -64851-08-26 08:52 J -21965167.38 -21965167.13 -21965166.86 0.0089 0.0016
 Neptune -64850-08-28 23:16 J -21964799.75 -21964799.53 -21964799.28 0.0089 0.0029
 Jupiter -64849-02-21 02:37 J -21964623.60 -21964623.39 -21964623.19 0.0513 0.0239
 Neptune -64849-08-30 03:35 J -21964432.58 -21964432.35 -21964432.10 0.0089 0.0027
 Neptune -64848-09-01 21:06 J -21964064.85 -21964064.62 -21964064.39 0.0089 0.0039
 Neptune -64847-09-04 00:57 J -21963697.69 -21963697.46 -21963697.23 0.0089 0.0037
 Saturn -64846-06-24 11:45 J -21963404.23 -21963404.01 -21963403.78 0.0302 0.0084
 Neptune -64846-09-06 17:01 J -21963330.01 -21963329.79 -21963329.57 0.0089 0.0049
 Saturn -64845-07-08 05:30 J -21963024.45 -21963024.27 -21963024.07 0.0300 0.0175
 Neptune -64845-09-07 23:30 J -21962962.72 -21962962.52 -21962962.30 0.0089 0.0047
 Neptune -64844-09-10 12:13 J -21962595.17 -21962594.99 -21962594.78 0.0089 0.0060
 Neptune -64843-09-12 23:45 J -21962227.68 -21962227.51 -21962227.30 0.0089 0.0058
 Neptune -64842-09-15 07:25 J -21961860.33 -21961860.19 -21961860.00 0.0089 0.0070
 Neptune -64841-09-16 23:16 J -21961492.67 -21961492.53 -21961492.34 0.0089 0.0067
 Neptune -64840-09-19 03:35 J -21961125.44 -21961125.35 -21961125.20 0.0089 0.0079
 Neptune -64839-09-21 21:35 J -21960757.70 -21960757.60 -21960757.44 0.0089 0.0077
 Neptune -64838-09-24 02:09 J -21960390.41 -21960390.41 -21960390.38 0.0089 0.0089
 Jupiter -64837-02-25 16:47 J -21960236.05 -21960235.80 -21960235.56 0.0515 0.0064
 Neptune -64837-09-25 18:13 J -21960022.78 -21960022.74 -21960022.63 0.0089 0.0086
 Jupiter -64832-08-16 18:13 J -21958236.89 -21958236.74 -21958236.60 0.0513 0.0380
 Saturn -64832-12-11 23:01 J -21958119.68 -21958119.54 -21958119.37 0.0259 0.0199

Saturn -64831-12-23 19:11 J -21957742.94 -21957742.70 -21957742.45 0.0260 0.0050
 Saturn -64829-01-04 14:09 J -21957366.13 -21957365.91 -21957365.67 0.0262 0.0111
 Uranus -64826-01-28 01:11 J -21956246.52 -21956246.45 -21956246.35 0.0139 0.0131
 Uranus -64825-02-01 20:37 J -21955876.87 -21955876.64 -21955876.39 0.0138 0.0041
 Jupiter -64825-03-01 18:57 J -21955847.88 -21955847.71 -21955847.53 0.0516 0.0329
 Uranus -64824-02-05 17:16 J -21955507.01 -21955506.78 -21955506.52 0.0138 0.0054
 Uranus -64823-02-10 08:23 J -21955137.21 -21955137.15 -21955137.05 0.0137 0.0129
 Jupiter -64820-08-21 09:49 J -21953849.32 -21953849.09 -21953848.87 0.0511 0.0140
 Saturn -64817-06-17 08:37 J -21952818.32 -21952818.14 -21952817.95 0.0304 0.0198
 Saturn -64816-07-01 23:45 J -21952438.75 -21952438.51 -21952438.26 0.0301 0.0063
 Jupiter -64808-08-25 14:23 J -21949462.13 -21949461.90 -21949461.68 0.0510 0.0111
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 Saturn -64802-12-18 17:59 J -21947155.96 -21947155.75 -21947155.51 0.0259 0.0120
 Saturn -64801-12-29 13:11 J -21946779.19 -21946778.95 -21946778.71 0.0261 0.0037
 Saturn -64799-01-10 17:30 J -21946401.92 -21946401.77 -21946401.62 0.0264 0.0206
 Jupiter -64796-08-30 09:06 J -21945074.23 -21945074.12 -21945073.99 0.0510 0.0426
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 Saturn -64787-06-25 23:30 J -21941852.75 -21941852.52 -21941852.29 0.0302 0.0055
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 Saturn -64786-07-10 15:06 J -21941473.03 -21941472.87 -21941472.68 0.0299 0.0200
 Pluto -64786-10-30 09:49 J -21941361.23 -21941361.09 -21941360.93 0.0064 0.0053
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 Pluto -64785-10-30 20:52 J -21940994.84 -21940994.63 -21940994.39 0.0064 0.0030
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Neptune -64757-03-24 22:04 J -21930987.64 -21930987.58 -21930987.48 0.0088 0.0084
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 Saturn -64740-01-12 03:35 J -21924850.46 -21924850.35 -21924850.21 0.0264 0.0228
 Uranus -64740-02-06 04:04 J -21924825.57 -21924825.33 -21924825.07 0.0138 0.0049
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 Jupiter -64713-08-29 10:18 J -21914759.21 -21914759.07 -21914758.92 0.0509 0.0399
 Saturn -64713-12-26 04:47 J -21914640.55 -21914640.30 -21914640.04 0.0261 0.0012
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 Neptune -64707-07-13 10:18 J -21912615.12 -21912615.07 -21912615.00 0.0089 0.0086
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 Mars -64704-06-25 23:01 J -21911536.73 -21911536.54 -21911536.36 0.1981 0.1090
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 Saturn -64698-07-06 01:25 J -21909335.65 -21909335.44 -21909335.23 0.0301 0.0125
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 Neptune -64697-08-03 12:13 J -21908941.22 -21908940.99 -21908940.74 0.0089 0.0037
 Uranus -64696-08-04 23:01 J -21908574.78 -21908574.54 -21908574.29 0.0141 0.0019
 Neptune -64696-08-06 02:52 J -21908573.61 -21908573.38 -21908573.14 0.0089 0.0023
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 Saturn -64685-12-09 19:25 J -21904429.80 -21904429.69 -21904429.56 0.0259 0.0225
 Neptune -64684-08-31 23:59 J -21904164.70 -21904164.50 -21904164.26 0.0089 0.0043
 Saturn -64684-12-21 15:35 J -21904053.08 -21904052.85 -21904052.62 0.0260 0.0078
 Jupiter -64683-02-18 23:16 J -21903993.70 -21903993.53 -21903993.34 0.0513 0.0313
 Neptune -64683-09-03 15:49 J -21903797.06 -21903796.84 -21903796.60 0.0089 0.0042
 Saturn -64682-01-02 13:54 J -21903676.16 -21903675.92 -21903675.68 0.0262 0.0079
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Saturn -64681-01-14 11:45 J -21903299.08 -21903299.01 -21903298.93 0.0265 0.0252
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 Neptune -64675-09-21 00:13 J -21900857.56 -21900857.49 -21900857.37 0.0089 0.0082
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 Saturn -64670-06-15 14:37 J -21899129.03 -21899128.89 -21899128.75 0.0303 0.0246
 Saturn -64669-06-29 07:54 J -21898749.41 -21898749.17 -21898748.92 0.0301 0.0013
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 Jupiter -64666-08-15 21:49 J -21897606.68 -21897606.59 -21897606.50 0.0514 0.0468
 Jupiter -64659-02-28 11:16 J -21895218.23 -21895218.03 -21895217.82 0.0515 0.0229
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 Uranus -64656-02-06 13:25 J -21894144.17 -21894143.94 -21894143.69 0.0138 0.0062
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 Jupiter -64654-08-20 17:59 J -21893218.95 -21893218.75 -21893218.55 0.0512 0.0227
 Saturn -64654-12-28 14:23 J -21893089.15 -21893088.90 -21893088.65 0.0261 0.0012
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 Mars -64649-12-26 03:35 J -21891264.51 -21891264.35 -21891264.19 0.1566 0.0651
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 Saturn -64625-12-23 05:30 J -21882501.52 -21882501.27 -21882501.03 0.0260 0.0054
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Saturn -64623-01-03 22:33 J -21882124.80 -21882124.56 -21882124.32 0.0262 0.0105
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Jupiter -64600-02-17 15:21 J -21873679.02 -21873678.86 -21873678.69 0.0512 0.0372
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 Saturn -64567-12-14 00:42 J -21861326.64 -21861326.47 -21861326.30 0.0259 0.0186
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 Jupiter -64564-03-04 08:37 J -21860515.21 -21860515.14 -21860515.08 0.0516 0.0494
 Jupiter -64559-08-23 23:16 J -21858516.75 -21858516.53 -21858516.30 0.0512 0.0016
 Saturn -64552-06-19 06:13 J -21856025.43 -21856025.24 -21856025.03 0.0303 0.0174
 Saturn -64551-07-03 23:59 J -21855645.72 -21855645.50 -21855645.27 0.0301 0.0087
 Jupiter -64547-08-28 11:45 J -21854129.19 -21854129.01 -21854128.81 0.0511 0.0313
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Neptune -64544-07-10 11:45 J -21853082.03 -21853082.01 -21853081.94 0.0089 0.0087
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 Neptune -64540-07-19 06:28 J -21851612.37 -21851612.23 -21851612.06 0.0089 0.0069
 Pluto -64540-10-31 13:54 J -21851508.14 -21851507.92 -21851507.66 0.0064 0.0026
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 Pluto -64539-11-02 08:52 J -21851141.24 -21851141.13 -21851140.98 0.0064 0.0056
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 Jupiter -64517-02-17 13:11 J -21843364.08 -21843363.95 -21843363.81 0.0512 0.0417
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 Jupiter -64481-03-03 08:37 J -21830200.25 -21830200.14 -21830200.02 0.0515 0.0442
 Saturn -64479-12-10 15:06 J -21829187.97 -21829187.87 -21829187.75 0.0259 0.0229

Saturn -64478-12-22 11:01 J -21828811.27 -21828811.04 -21828810.80 0.0260 0.0081
 Saturn -64476-01-02 06:28 J -21828434.48 -21828434.23 -21828433.99 0.0262 0.0080
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 Saturn -64475-01-14 02:23 J -21828057.46 -21828057.40 -21828057.32 0.0265 0.0254
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 Uranus -64405-02-04 01:25 J -21802469.68 -21802469.44 -21802469.18 0.0138 0.0021
 Saturn -64405-06-16 17:45 J -21802335.92 -21802335.76 -21802335.59 0.0304 0.0226

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 Neptune -64376-07-18 11:30 J -21791712.17 -21791712.02 -21791711.86 0.0089 0.0070
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 Mars -64341-06-28 03:35 J -21778948.56 -21778948.35 -21778948.13 0.1981 0.0044
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Jupiter -64327-02-25 13:11 J -21773958.19 -21773957.95 -21773957.70 0.0514 0.0053
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 Mars -64318-12-23 01:25 J -21770370.55 -21770370.44 -21770370.33 0.1567 0.1233
 Saturn -64316-06-26 17:16 J -21769819.02 -21769818.78 -21769818.53 0.0303 0.0056
 Jupiter -64315-03-02 15:21 J -21769570.01 -21769569.86 -21769569.71 0.0515 0.0390
 Saturn -64315-07-11 06:13 J -21769439.41 -21769439.24 -21769439.05 0.0300 0.0202
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 Saturn -64301-12-25 16:33 J -21764158.05 -21764157.81 -21764157.56 0.0260 0.0036
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 Neptune -64298-01-06 16:18 J -21763415.89 -21763415.82 -21763415.74 0.0088 0.0085
 Jupiter -64298-08-26 18:28 J -21763183.93 -21763183.73 -21763183.52 0.0512 0.0220
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 Pluto -64294-11-02 23:16 J -21761654.78 -21761654.53 -21761654.28 0.0064 0.0008
 Neptune -64293-01-18 16:18 J -21761577.97 -21761577.82 -21761577.62 0.0088 0.0067
 Neptune -64292-01-20 02:23 J -21761210.58 -21761210.40 -21761210.18 0.0088 0.0054
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Jupiter -64286-08-31 13:25 J -21758795.99 -21758795.94 -21758795.88 0.0510 0.0493
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 Uranus -64238-01-30 10:18 J -21741477.22 -21741477.07 -21741476.88 0.0139 0.0104
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 Saturn -64155-12-12 06:13 J -21710845.32 -21710845.24 -21710845.14 0.0258 0.0239
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 Neptune -64052-07-08 19:11 J -21673380.78 -21673380.70 -21673380.56 0.0089 0.0080
 Saturn -64051-06-24 03:06 J -21673030.58 -21673030.37 -21673030.15 0.0304 0.0128
 Neptune -64051-07-11 12:13 J -21673013.05 -21673012.99 -21673012.88 0.0089 0.0084
 Saturn -64050-07-09 01:54 J -21672650.63 -21672650.42 -21672650.21 0.0302 0.0130
 Neptune -64050-07-13 16:18 J -21672645.95 -21672645.82 -21672645.65 0.0089 0.0070
 Neptune -64049-07-15 07:25 J -21672278.32 -21672278.19 -21672278.02 0.0089 0.0073
 Jupiter -64049-08-25 10:33 J -21672237.26 -21672237.06 -21672236.85 0.0511 0.0179
 Neptune -64048-07-17 14:52 J -21671911.05 -21671910.88 -21671910.69 0.0089 0.0059
 Pluto -64048-11-04 09:06 J -21671801.36 -21671801.12 -21671800.85 0.0064 0.0014
 Neptune -64047-07-20 01:11 J -21671543.63 -21671543.45 -21671543.25 0.0089 0.0062

Neptune -64046-07-22 12:42 J -21671176.15 -21671175.97 -21671175.74 0.0089 0.0048
 Neptune -64045-07-23 17:59 J -21670808.94 -21670808.75 -21670808.51 0.0089 0.0051
 Neptune -64044-07-26 10:18 J -21670441.29 -21670441.07 -21670440.84 0.0089 0.0036
 Neptune -64043-07-28 13:25 J -21670074.16 -21670073.94 -21670073.71 0.0089 0.0040
 Neptune -64042-07-31 06:13 J -21669706.48 -21669706.24 -21669705.99 0.0089 0.0025
 Neptune -64041-08-01 10:04 J -21669339.30 -21669339.08 -21669338.83 0.0089 0.0028
 Neptune -64040-08-04 00:13 J -21668971.74 -21668971.49 -21668971.22 0.0089 0.0013
 Neptune -64039-08-06 08:52 J -21668604.36 -21668604.13 -21668603.88 0.0089 0.0015
 Neptune -64038-08-08 18:28 J -21668237.00 -21668236.73 -21668236.47 0.0089 0.0002
 Neptune -64037-08-10 07:25 J -21667869.44 -21667869.19 -21667868.95 0.0089 0.0004
 Jupiter -64037-08-30 01:40 J -21667849.55 -21667849.43 -21667849.30 0.0510 0.0429
 Saturn -64037-12-13 16:04 J -21667743.94 -21667743.83 -21667743.70 0.0258 0.0222
 Neptune -64036-08-12 12:13 J -21667502.25 -21667501.99 -21667501.74 0.0089 0.0012
 Saturn -64036-12-25 09:49 J -21667367.33 -21667367.09 -21667366.86 0.0259 0.0069
 Neptune -64035-08-15 04:47 J -21667134.55 -21667134.30 -21667134.05 0.0089 0.0009
 Saturn -64034-01-06 02:37 J -21666990.61 -21666990.39 -21666990.14 0.0260 0.0104
 Neptune -64034-08-17 07:40 J -21666767.41 -21666767.18 -21666766.93 0.0089 0.0024
 Mars -64034-12-24 08:52 J -21666638.30 -21666638.13 -21666637.96 0.1568 0.0880
 Neptune -64033-08-19 00:13 J -21666399.73 -21666399.49 -21666399.23 0.0089 0.0021
 Neptune -64032-08-21 05:01 J -21666032.50 -21666032.29 -21666032.05 0.0089 0.0035
 Neptune -64031-08-23 18:28 J -21665664.96 -21665664.73 -21665664.47 0.0089 0.0033
 Neptune -64030-08-26 04:04 J -21665297.52 -21665297.33 -21665297.11 0.0089 0.0047
 Neptune -64029-08-27 12:13 J -21664930.19 -21664929.99 -21664929.74 0.0089 0.0046
 Neptune -64028-08-30 02:23 J -21664562.56 -21664562.40 -21664562.19 0.0089 0.0059
 Neptune -64027-09-01 06:57 J -21664195.39 -21664195.21 -21664194.99 0.0089 0.0056
 Uranus -64026-07-31 03:49 J -21663862.38 -21663862.34 -21663862.27 0.0139 0.0136
 Neptune -64026-09-04 00:13 J -21663827.63 -21663827.49 -21663827.32 0.0089 0.0070
 Uranus -64025-08-03 12:42 J -21663493.19 -21663492.97 -21663492.75 0.0140 0.0055
 Neptune -64025-09-05 03:49 J -21663460.48 -21663460.34 -21663460.16 0.0089 0.0068
 Uranus -64024-08-08 05:45 J -21663123.49 -21663123.26 -21663123.01 0.0141 0.0049

Neptune -64024-09-07 20:37 J -21663092.74 -21663092.64 -21663092.52 0.0089 0.0080

Uranus -64023-08-12 15:21 J -21662753.96 -21662753.86 -21662753.75 0.0141 0.0128

Neptune -64023-09-10 02:23 J -21662725.49 -21662725.40 -21662725.26 0.0089 0.0079

Saturn -64022-06-17 15:35 J -21662444.98 -21662444.85 -21662444.70 0.0305 0.0250

Saturn -64021-07-01 11:45 J -21662065.26 -21662065.01 -21662064.77 0.0303 0.0012

Neptune -64021-09-14 02:37 J -21661990.39 -21661990.39 -21661990.36 0.0089 0.0089

Saturn -64020-07-16 00:57 J -21661685.57 -21661685.46 -21661685.33 0.0301 0.0260

Jupiter -64007-02-19 02:23 J -21657084.58 -21657084.40 -21657084.22 0.0512 0.0318

Saturn -64007-12-20 08:09 J -21656780.38 -21656780.16 -21656779.95 0.0258 0.0143

Saturn -64006-12-31 21:21 J -21656403.85 -21656403.61 -21656403.36 0.0260 0.0024

Saturn -64004-01-11 20:37 J -21656026.78 -21656026.64 -21656026.48 0.0262 0.0206

64TH MILLENNIUM BCE

This is a list of transits of Moon in the 64th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-63995-02-24	07:25 J	-21652696.43	-21652696.19	-21652695.95	0.0513	0.0008	
Saturn	-63992-06-25	02:52 J	-21651479.59	-21651479.38	-21651479.16	0.0304	0.0116	
Saturn	-63991-07-10	00:13 J	-21651099.70	-21651099.49	-21651099.28	0.0301	0.0144	
Jupiter	-63990-08-16	17:01 J	-21650696.87	-21650696.79	-21650696.69	0.0514	0.0472	
Uranus	-63986-01-31	15:06 J	-21649433.01	-21649432.87	-21649432.68	0.0139	0.0106	
Uranus	-63985-02-05	18:42 J	-21649062.98	-21649062.72	-21649062.46	0.0138	0.0003	
Uranus	-63984-02-09	05:45 J	-21648693.45	-21648693.26	-21648693.04	0.0138	0.0085	
Jupiter	-63983-02-28	19:54 J	-21648308.84	-21648308.67	-21648308.49	0.0515	0.0345	

Jupiter -63978-08-21 10:18 J -21646309.28 -21646309.07 -21646308.85 0.0512 0.0136
 Saturn -63978-12-15 17:45 J -21646192.89 -21646192.76 -21646192.62 0.0258 0.0211
 Saturn -63977-12-26 08:23 J -21645816.40 -21645816.15 -21645815.90 0.0259 0.0053
 Saturn -63975-01-06 20:23 J -21645439.88 -21645439.65 -21645439.42 0.0261 0.0123
 Neptune -63969-01-08 06:57 J -21643247.31 -21643247.21 -21643247.07 0.0088 0.0079
 Neptune -63968-01-09 14:23 J -21642879.98 -21642879.90 -21642879.77 0.0088 0.0081
 Neptune -63967-01-12 08:09 J -21642512.32 -21642512.16 -21642511.98 0.0088 0.0068
 Neptune -63966-01-14 19:25 J -21642144.82 -21642144.69 -21642144.51 0.0088 0.0069
 Jupiter -63966-08-25 23:01 J -21641921.76 -21641921.54 -21641921.31 0.0511 0.0154
 Neptune -63965-01-17 09:06 J -21641777.33 -21641777.12 -21641776.91 0.0088 0.0056
 Neptune -63964-01-19 01:25 J -21641409.62 -21641409.44 -21641409.24 0.0088 0.0058
 Neptune -63963-01-21 09:49 J -21641042.31 -21641042.09 -21641041.84 0.0088 0.0045
 Saturn -63963-06-18 08:37 J -21640894.28 -21640894.14 -21640893.98 0.0305 0.0237
 Neptune -63962-01-24 05:45 J -21640674.47 -21640674.26 -21640674.03 0.0088 0.0047
 Saturn -63962-07-03 06:28 J -21640514.47 -21640514.23 -21640513.99 0.0303 0.0026
 Neptune -63961-01-26 12:13 J -21640307.23 -21640306.99 -21640306.74 0.0088 0.0032
 Saturn -63961-07-16 23:30 J -21640134.60 -21640134.52 -21640134.42 0.0300 0.0276
 Neptune -63960-01-28 08:52 J -21639939.37 -21639939.13 -21639938.88 0.0088 0.0034
 Neptune -63959-01-30 16:04 J -21639572.08 -21639571.83 -21639571.57 0.0088 0.0020
 Pluto -63959-05-11 12:57 J -21639471.19 -21639470.96 -21639470.69 0.0081 0.0028
 Neptune -63958-02-02 10:04 J -21639204.33 -21639204.08 -21639203.80 0.0088 0.0022
 Neptune -63957-02-04 21:06 J -21638836.87 -21638836.62 -21638836.37 0.0088 0.0008
 Neptune -63956-02-06 11:01 J -21638469.30 -21638469.04 -21638468.76 0.0088 0.0011
 Neptune -63955-02-09 02:23 J -21638101.65 -21638101.40 -21638101.14 0.0088 0.0005
 Mars -63955-12-26 12:42 J -21637781.16 -21637780.97 -21637780.78 0.1568 0.0132
 Neptune -63954-02-11 11:45 J -21637734.28 -21637734.01 -21637733.73 0.0088 0.0003
 Jupiter -63954-08-30 05:59 J -21637534.39 -21637534.25 -21637534.11 0.0510 0.0402
 Neptune -63953-02-14 06:28 J -21637366.47 -21637366.23 -21637365.96 0.0088 0.0018
 Neptune -63952-02-15 13:11 J -21636999.21 -21636998.95 -21636998.69 0.0088 0.0015
 Neptune -63951-02-18 09:35 J -21636631.35 -21636631.10 -21636630.85 0.0088 0.0030

Neptune -63950-02-20 15:35 J -21636264.08 -21636263.85 -21636263.59 0.0088 0.0027
 Neptune -63949-02-23 10:47 J -21635896.29 -21635896.05 -21635895.81 0.0088 0.0042
 Neptune -63948-02-24 20:09 J -21635528.88 -21635528.66 -21635528.43 0.0088 0.0040
 Saturn -63948-12-21 05:59 J -21635229.46 -21635229.25 -21635229.03 0.0258 0.0129
 Neptune -63947-02-27 10:33 J -21635161.25 -21635161.06 -21635160.82 0.0088 0.0054
 Saturn -63946-01-02 01:40 J -21634852.67 -21634852.43 -21634852.19 0.0260 0.0044
 Neptune -63946-03-02 01:11 J -21634793.64 -21634793.45 -21634793.23 0.0088 0.0051
 Saturn -63945-01-13 23:30 J -21634475.64 -21634475.52 -21634475.38 0.0262 0.0224
 Neptune -63945-03-03 11:01 J -21634426.19 -21634426.04 -21634425.83 0.0088 0.0066
 Neptune -63944-03-06 05:16 J -21634058.45 -21634058.28 -21634058.09 0.0088 0.0063
 Neptune -63943-03-08 11:45 J -21633691.13 -21633691.01 -21633690.87 0.0088 0.0077
 Neptune -63942-03-11 07:11 J -21633323.31 -21633323.20 -21633323.03 0.0088 0.0075
 Uranus -63942-07-31 11:16 J -21633181.03 -21633181.03 -21633181.01 0.0139 0.0139
 Neptune -63941-03-12 13:25 J -21632955.95 -21632955.94 -21632955.89 0.0088 0.0088
 Uranus -63941-08-03 20:52 J -21632811.85 -21632811.63 -21632811.39 0.0140 0.0044
 Neptune -63940-03-15 07:54 J -21632588.22 -21632588.17 -21632588.07 0.0088 0.0085
 Uranus -63940-08-08 12:57 J -21632442.20 -21632441.96 -21632441.70 0.0141 0.0037
 Saturn -63933-06-26 05:16 J -21629928.51 -21629928.28 -21629928.05 0.0303 0.0098
 Saturn -63932-07-10 22:04 J -21629548.79 -21629548.58 -21629548.37 0.0301 0.0159
 Jupiter -63924-02-18 10:18 J -21626769.23 -21626769.07 -21626768.89 0.0513 0.0360
 Saturn -63919-12-16 20:37 J -21624641.80 -21624641.64 -21624641.48 0.0258 0.0197
 Saturn -63918-12-28 05:01 J -21624265.54 -21624265.29 -21624265.03 0.0259 0.0034
 Saturn -63916-01-07 19:25 J -21623888.89 -21623888.69 -21623888.47 0.0261 0.0145
 Jupiter -63912-02-23 03:21 J -21622381.60 -21622381.36 -21622381.13 0.0514 0.0035
 Jupiter -63907-08-16 04:33 J -21620381.36 -21620381.31 -21620381.25 0.0514 0.0493
 Saturn -63904-06-19 11:16 J -21619343.19 -21619343.03 -21619342.87 0.0304 0.0220
 Saturn -63903-07-04 11:30 J -21618963.25 -21618963.02 -21618962.79 0.0303 0.0044
 Uranus -63902-02-01 00:13 J -21618751.67 -21618751.49 -21618751.28 0.0139 0.0089
 Saturn -63902-07-19 05:16 J -21618583.32 -21618583.28 -21618583.22 0.0300 0.0292
 Uranus -63901-02-06 03:35 J -21618381.61 -21618381.35 -21618381.09 0.0138 0.0007

Uranus -63900-02-09 15:06 J -21618012.06 -21618011.87 -21618011.66 0.0138 0.0089
 Jupiter -63900-02-28 11:30 J -21617993.19 -21617993.02 -21617992.84 0.0515 0.0329
 Jupiter -63895-08-20 18:13 J -21615993.96 -21615993.74 -21615993.51 0.0513 0.0160
 Neptune -63889-07-05 23:01 J -21613847.54 -21613847.54 -21613847.51 0.0089 0.0089
 Saturn -63889-12-22 11:45 J -21613678.22 -21613678.01 -21613677.79 0.0259 0.0111
 Neptune -63888-07-08 15:21 J -21613479.89 -21613479.86 -21613479.76 0.0089 0.0086
 Saturn -63887-01-03 06:42 J -21613301.45 -21613301.22 -21613300.97 0.0260 0.0064
 Neptune -63887-07-10 19:25 J -21613112.77 -21613112.69 -21613112.55 0.0089 0.0079
 Saturn -63886-01-14 23:30 J -21612924.60 -21612924.52 -21612924.43 0.0262 0.0247
 Neptune -63886-07-13 09:35 J -21612745.21 -21612745.10 -21612744.93 0.0089 0.0075
 Neptune -63885-07-14 17:16 J -21612377.92 -21612377.78 -21612377.60 0.0089 0.0067
 Neptune -63884-07-17 02:52 J -21612010.54 -21612010.38 -21612010.17 0.0089 0.0063
 Neptune -63883-07-19 16:04 J -21611643.01 -21611642.83 -21611642.63 0.0089 0.0056
 Jupiter -63883-08-25 01:54 J -21611606.64 -21611606.42 -21611606.21 0.0512 0.0126
 Neptune -63882-07-21 21:21 J -21611275.81 -21611275.61 -21611275.39 0.0089 0.0052
 Neptune -63881-07-23 13:40 J -21610908.14 -21610907.93 -21610907.70 0.0089 0.0044
 Neptune -63880-07-25 16:33 J -21610541.02 -21610540.81 -21610540.57 0.0089 0.0041
 Neptune -63879-07-28 09:21 J -21610173.34 -21610173.11 -21610172.86 0.0089 0.0031
 Neptune -63878-07-30 13:40 J -21609806.15 -21609805.93 -21609805.68 0.0089 0.0028
 Neptune -63877-08-01 03:06 J -21609438.62 -21609438.37 -21609438.11 0.0089 0.0019
 Neptune -63876-08-03 11:30 J -21609071.25 -21609071.02 -21609070.77 0.0089 0.0017
 Mars -63876-12-28 08:37 J -21608924.27 -21608924.14 -21608924.01 0.1567 0.1071
 Neptune -63875-08-05 20:09 J -21608703.92 -21608703.66 -21608703.40 0.0089 0.0008
 Saturn -63874-06-28 07:11 J -21608377.44 -21608377.20 -21608376.96 0.0303 0.0078
 Neptune -63874-08-08 09:49 J -21608336.33 -21608336.09 -21608335.84 0.0089 0.0004
 Saturn -63873-07-11 22:47 J -21607997.75 -21607997.55 -21607997.35 0.0301 0.0178
 Neptune -63873-08-09 14:37 J -21607969.14 -21607968.89 -21607968.63 0.0089 0.0005
 Neptune -63872-08-12 07:25 J -21607601.43 -21607601.19 -21607600.93 0.0089 0.0009
 Neptune -63871-08-14 10:47 J -21607234.29 -21607234.05 -21607233.80 0.0089 0.0018
 Jupiter -63871-08-29 23:01 J -21607218.69 -21607218.54 -21607218.38 0.0510 0.0382

Neptune -63870-08-17 03:21 J -21606866.60 -21606866.36 -21606866.10 0.0089 0.0020
 Neptune -63869-08-18 08:37 J -21606499.36 -21606499.14 -21606498.90 0.0089 0.0030
 Neptune -63868-08-20 21:06 J -21606131.85 -21606131.62 -21606131.36 0.0089 0.0033
 Neptune -63867-08-23 06:57 J -21605764.41 -21605764.21 -21605763.98 0.0089 0.0043
 Neptune -63866-08-25 14:37 J -21605397.10 -21605396.89 -21605396.66 0.0089 0.0045
 Neptune -63865-08-27 05:30 J -21605029.46 -21605029.27 -21605029.07 0.0089 0.0055
 Neptune -63864-08-29 09:35 J -21604662.28 -21604662.10 -21604661.88 0.0089 0.0056
 Neptune -63863-09-01 02:37 J -21604294.53 -21604294.39 -21604294.19 0.0089 0.0067
 Neptune -63862-09-03 06:57 J -21603927.37 -21603927.21 -21603927.05 0.0089 0.0068
 Neptune -63861-09-04 22:33 J -21603559.66 -21603559.56 -21603559.41 0.0089 0.0079
 Neptune -63860-09-07 05:30 J -21603192.37 -21603192.27 -21603192.15 0.0089 0.0079
 Saturn -63860-12-17 20:52 J -21603090.81 -21603090.63 -21603090.44 0.0259 0.0180
 Neptune -63859-09-09 17:45 J -21602824.78 -21602824.76 -21602824.72 0.0089 0.0088
 Saturn -63859-12-29 06:57 J -21602714.46 -21602714.21 -21602713.96 0.0260 0.0015
 Uranus -63858-07-31 16:18 J -21602499.86 -21602499.82 -21602499.74 0.0139 0.0136
 Saturn -63857-01-10 04:18 J -21602337.50 -21602337.32 -21602337.13 0.0261 0.0169
 Uranus -63857-08-04 03:21 J -21602130.58 -21602130.36 -21602130.13 0.0140 0.0052
 Uranus -63856-08-08 17:59 J -21601760.98 -21601760.75 -21601760.50 0.0140 0.0050
 Uranus -63855-08-13 05:16 J -21601391.35 -21601391.28 -21601391.17 0.0141 0.0131
 Saturn -63845-06-21 00:57 J -21597791.62 -21597791.46 -21597791.27 0.0304 0.0196
 Saturn -63844-07-06 00:28 J -21597411.71 -21597411.48 -21597411.25 0.0303 0.0068
 Jupiter -63841-02-18 09:06 J -21596454.27 -21596454.12 -21596453.96 0.0512 0.0394
 Saturn -63831-12-13 03:49 J -21592503.38 -21592503.34 -21592503.27 0.0258 0.0252
 Saturn -63830-12-24 21:06 J -21592126.85 -21592126.62 -21592126.39 0.0259 0.0092
 Jupiter -63829-02-23 14:52 J -21592066.12 -21592065.88 -21592065.65 0.0513 0.0061
 Mars -63829-12-22 10:33 J -21591763.16 -21591763.06 -21591762.95 0.1570 0.1276
 Saturn -63828-01-04 10:33 J -21591750.30 -21591750.06 -21591749.81 0.0260 0.0086
 Uranus -63818-02-01 05:45 J -21588070.42 -21588070.26 -21588070.07 0.0139 0.0102
 Uranus -63817-02-06 08:37 J -21587700.41 -21587700.14 -21587699.88 0.0138 0.0003
 Jupiter -63817-02-28 07:11 J -21587678.40 -21587678.20 -21587677.99 0.0514 0.0283

Uranus -63816-02-09 20:09 J -21587330.83 -21587330.66 -21587330.44 0.0138 0.0089
 Saturn -63815-06-29 14:52 J -21586826.11 -21586825.88 -21586825.64 0.0303 0.0054
 Saturn -63814-07-14 08:37 J -21586446.30 -21586446.14 -21586445.96 0.0301 0.0204
 Jupiter -63812-08-19 20:23 J -21585678.85 -21585678.65 -21585678.44 0.0513 0.0185
 Neptune -63805-01-07 11:59 J -21583347.10 -21583347.00 -21583346.87 0.0088 0.0079
 Neptune -63804-01-09 04:47 J -21582979.41 -21582979.30 -21582979.16 0.0088 0.0079
 Neptune -63803-01-11 17:01 J -21582611.93 -21582611.79 -21582611.60 0.0088 0.0068
 Pluto -63803-11-04 22:33 J -21582314.64 -21582314.56 -21582314.44 0.0064 0.0058
 Neptune -63802-01-14 04:47 J -21582244.46 -21582244.30 -21582244.11 0.0088 0.0068
 Pluto -63802-11-06 11:01 J -21581948.27 -21581948.04 -21581947.81 0.0064 0.0032
 Neptune -63801-01-16 21:49 J -21581876.77 -21581876.59 -21581876.37 0.0088 0.0057
 Saturn -63801-12-18 23:30 J -21581539.71 -21581539.52 -21581539.31 0.0259 0.0162
 Neptune -63800-01-18 05:30 J -21581509.45 -21581509.27 -21581509.04 0.0088 0.0057
 Jupiter -63800-08-24 17:01 J -21581291.01 -21581290.79 -21581290.56 0.0512 0.0098
 Saturn -63800-12-30 16:33 J -21581163.05 -21581162.81 -21581162.57 0.0260 0.0009
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 Jupiter -63539-08-26 23:01 J -21485958.74 -21485958.54 -21485958.33 0.0512 0.0188
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 Saturn -63536-12-21 04:33 J -21484746.51 -21484746.31 -21484746.11 0.0259 0.0148
 Neptune -63535-08-31 03:21 J -21484493.50 -21484493.36 -21484493.18 0.0089 0.0070
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 Saturn -63521-06-25 03:35 J -21479446.56 -21479446.35 -21479446.12 0.0304 0.0141
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 Jupiter -63331-02-18 05:45 J -21410176.44 -21410176.26 -21410176.07 0.0511 0.0312
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Saturn -63285-07-01 05:16 J -21393241.52 -21393241.28 -21393241.04 0.0304 0.0061
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 Mars -63261-12-25 08:37 J -21384298.33 -21384298.14 -21384297.94 0.1573 0.0552
 Saturn -63256-06-24 09:21 J -21382656.28 -21382656.11 -21382655.92 0.0304 0.0194
 Saturn -63255-07-09 10:47 J -21382276.27 -21382276.05 -21382275.82 0.0303 0.0075
 Jupiter -63248-02-17 20:37 J -21379860.81 -21379860.64 -21379860.46 0.0512 0.0331
 Saturn -63242-12-16 23:16 J -21377367.63 -21377367.53 -21377367.43 0.0258 0.0235
 Saturn -63241-12-27 14:09 J -21376991.14 -21376990.91 -21376990.67 0.0258 0.0063
 Saturn -63239-01-08 07:25 J -21376614.40 -21376614.19 -21376613.96 0.0259 0.0120
 Jupiter -63236-02-22 15:21 J -21375473.11 -21375472.86 -21375472.61 0.0513 0.0008
 Neptune -63232-07-06 13:25 J -21373877.99 -21373877.94 -21373877.83 0.0089 0.0085
 Neptune -63231-07-09 04:47 J -21373510.40 -21373510.30 -21373510.18 0.0089 0.0079
 Jupiter -63231-08-15 23:01 J -21373472.61 -21373472.54 -21373472.46 0.0515 0.0478
 Uranus -63230-02-03 17:30 J -21373300.97 -21373300.77 -21373300.55 0.0139 0.0072
 Neptune -63230-07-11 08:23 J -21373143.27 -21373143.15 -21373142.98 0.0089 0.0073
 Uranus -63229-02-08 11:30 J -21372931.28 -21372931.02 -21372930.75 0.0139 0.0010
 Neptune -63229-07-13 01:40 J -21372775.58 -21372775.43 -21372775.25 0.0089 0.0067
 Uranus -63228-02-12 07:25 J -21372561.32 -21372561.19 -21372561.05 0.0138 0.0115
 Neptune -63228-07-15 04:47 J -21372408.46 -21372408.30 -21372408.10 0.0089 0.0061
 Neptune -63227-07-17 20:23 J -21372040.84 -21372040.65 -21372040.43 0.0089 0.0054
 Saturn -63226-07-02 18:57 J -21371690.95 -21371690.71 -21371690.46 0.0304 0.0053
 Neptune -63226-07-20 02:52 J -21371673.57 -21371673.38 -21371673.16 0.0089 0.0048
 Saturn -63225-07-16 12:13 J -21371311.16 -21371310.99 -21371310.81 0.0302 0.0210

Neptune -63225-07-21 14:23 J -21371306.13 -21371305.90 -21371305.66 0.0089 0.0040
 Jupiter -63224-02-27 18:28 J -21371084.92 -21371084.73 -21371084.54 0.0514 0.0271
 Neptune -63224-07-24 01:11 J -21370938.66 -21370938.45 -21370938.21 0.0089 0.0035
 Neptune -63223-07-26 07:11 J -21370571.43 -21370571.20 -21370570.94 0.0089 0.0028
 Pluto -63222-05-15 05:59 J -21370278.47 -21370278.25 -21370277.99 0.0081 0.0031
 Neptune -63222-07-28 22:33 J -21370203.79 -21370203.56 -21370203.30 0.0089 0.0022
 Neptune -63221-07-30 02:09 J -21369836.65 -21369836.41 -21369836.15 0.0089 0.0014
 Neptune -63220-08-01 18:57 J -21369468.96 -21369468.71 -21369468.45 0.0089 0.0008
 Neptune -63219-08-03 23:01 J -21369101.79 -21369101.54 -21369101.29 0.0089 0.0001
 Jupiter -63219-08-20 18:57 J -21369084.91 -21369084.71 -21369084.50 0.0514 0.0217
 Neptune -63218-08-06 13:54 J -21368734.17 -21368733.92 -21368733.66 0.0089 0.0006
 Neptune -63217-08-07 21:21 J -21368366.84 -21368366.61 -21368366.36 0.0089 0.0014
 Neptune -63216-08-10 07:40 J -21367999.43 -21367999.18 -21367998.92 0.0089 0.0019
 Neptune -63215-08-12 19:54 J -21367631.91 -21367631.67 -21367631.44 0.0089 0.0027
 Neptune -63214-08-15 01:11 J -21367264.69 -21367264.45 -21367264.21 0.0089 0.0034
 Neptune -63213-08-16 16:33 J -21366897.01 -21366896.81 -21366896.57 0.0089 0.0043
 Neptune -63212-08-18 19:54 J -21366529.87 -21366529.67 -21366529.44 0.0089 0.0047
 Saturn -63212-12-22 17:16 J -21366403.99 -21366403.78 -21366403.56 0.0258 0.0144
 Neptune -63211-08-21 12:28 J -21366162.16 -21366161.98 -21366161.76 0.0089 0.0055
 Saturn -63210-01-03 01:54 J -21366027.66 -21366027.42 -21366027.17 0.0259 0.0039
 Neptune -63210-08-23 17:16 J -21365794.96 -21365794.78 -21365794.59 0.0089 0.0059
 Saturn -63209-01-14 21:35 J -21365650.72 -21365650.60 -21365650.47 0.0261 0.0220
 Neptune -63209-08-25 06:57 J -21365427.36 -21365427.21 -21365427.02 0.0089 0.0068
 Neptune -63208-08-27 15:49 J -21365059.96 -21365059.84 -21365059.68 0.0089 0.0073
 Jupiter -63207-08-25 02:23 J -21364697.63 -21364697.40 -21364697.18 0.0513 0.0085
 Neptune -63207-08-30 01:11 J -21364692.54 -21364692.45 -21364692.31 0.0089 0.0081
 Neptune -63206-09-01 14:52 J -21364324.94 -21364324.88 -21364324.78 0.0089 0.0085
 Saturn -63197-06-25 06:57 J -21361105.38 -21361105.21 -21361105.02 0.0304 0.0186
 Saturn -63196-07-10 07:40 J -21360725.41 -21360725.18 -21360724.95 0.0303 0.0084
 Jupiter -63195-08-29 22:33 J -21360309.67 -21360309.56 -21360309.44 0.0511 0.0436

Uranus -63186-08-03 05:45 J -21357049.36 -21357049.26 -21357049.15 0.0139 0.0126
 Uranus -63185-08-07 00:28 J -21356679.71 -21356679.48 -21356679.23 0.0140 0.0030
 Uranus -63184-08-11 06:42 J -21356310.44 -21356310.22 -21356310.00 0.0140 0.0067
 Saturn -63183-12-17 22:33 J -21355816.68 -21355816.56 -21355816.44 0.0258 0.0222
 Mars -63182-12-28 14:09 J -21355441.09 -21355440.91 -21355440.72 0.1572 0.0316
 Saturn -63182-12-29 13:11 J -21355440.19 -21355439.95 -21355439.70 0.0258 0.0048
 Saturn -63180-01-08 23:45 J -21355063.72 -21355063.51 -21355063.28 0.0259 0.0136
 Saturn -63167-07-03 08:52 J -21350140.37 -21350140.13 -21350139.90 0.0304 0.0043
 Saturn -63166-07-18 05:59 J -21349760.40 -21349760.25 -21349760.09 0.0302 0.0224
 Jupiter -63165-02-18 03:06 J -21349545.56 -21349545.37 -21349545.19 0.0511 0.0339
 Jupiter -63153-02-23 04:47 J -21345157.53 -21345157.30 -21345157.07 0.0512 0.0033
 Saturn -63153-12-23 09:21 J -21344853.32 -21344853.11 -21344852.89 0.0258 0.0130
 Saturn -63151-01-04 01:11 J -21344476.69 -21344476.45 -21344476.21 0.0259 0.0054
 Saturn -63150-01-15 21:35 J -21344099.70 -21344099.60 -21344099.49 0.0261 0.0235
 Neptune -63149-01-05 09:06 J -21343745.21 -21343745.12 -21343744.97 0.0088 0.0079
 Neptune -63148-01-06 15:35 J -21343377.93 -21343377.85 -21343377.72 0.0088 0.0081
 Jupiter -63148-08-15 17:16 J -21343156.82 -21343156.78 -21343156.72 0.0515 0.0500
 Neptune -63147-01-09 11:45 J -21343010.16 -21343010.01 -21343009.81 0.0088 0.0067
 Neptune -63146-01-11 18:57 J -21342642.85 -21342642.71 -21342642.52 0.0088 0.0068
 Uranus -63146-02-03 23:16 J -21342619.73 -21342619.53 -21342619.33 0.0139 0.0085
 Neptune -63145-01-14 12:57 J -21342275.17 -21342274.96 -21342274.73 0.0088 0.0053
 Uranus -63145-02-08 15:49 J -21342250.10 -21342249.84 -21342249.57 0.0139 0.0024
 Neptune -63144-01-15 23:59 J -21341907.68 -21341907.50 -21341907.27 0.0088 0.0054
 Uranus -63144-02-12 13:25 J -21341880.09 -21341879.94 -21341879.77 0.0138 0.0106
 Neptune -63143-01-18 13:40 J -21341540.15 -21341539.93 -21341539.67 0.0088 0.0040
 Neptune -63142-01-21 06:13 J -21341172.46 -21341172.24 -21341172.00 0.0088 0.0040
 Neptune -63141-01-23 14:52 J -21340805.12 -21340804.88 -21340804.60 0.0088 0.0027
 Jupiter -63141-02-28 05:16 J -21340769.49 -21340769.28 -21340769.05 0.0513 0.0246
 Neptune -63140-01-25 10:47 J -21340437.29 -21340437.05 -21340436.79 0.0088 0.0026
 Neptune -63139-01-27 17:30 J -21340070.03 -21340069.77 -21340069.51 0.0088 0.0012

Neptune -63138-01-30 13:54 J -21339702.18 -21339701.92 -21339701.65 0.0088 0.0010
 Saturn -63138-06-27 01:54 J -21339554.61 -21339554.42 -21339554.22 0.0304 0.0175
 Neptune -63137-02-01 20:52 J -21339334.89 -21339334.63 -21339334.37 0.0088 0.0002
 Saturn -63137-07-10 22:47 J -21339174.79 -21339174.55 -21339174.32 0.0303 0.0096
 Neptune -63136-02-03 15:21 J -21338967.13 -21338966.86 -21338966.59 0.0088 0.0004
 Jupiter -63136-08-20 02:23 J -21338769.60 -21338769.40 -21338769.19 0.0514 0.0230
 Neptune -63135-02-06 00:57 J -21338599.69 -21338599.46 -21338599.19 0.0088 0.0016
 Neptune -63134-02-08 15:49 J -21338232.11 -21338231.84 -21338231.57 0.0088 0.0018
 Neptune -63133-02-11 06:28 J -21337864.45 -21337864.23 -21337863.97 0.0088 0.0030
 Neptune -63132-02-12 16:18 J -21337497.06 -21337496.82 -21337496.55 0.0088 0.0033
 Neptune -63131-02-15 11:16 J -21337129.24 -21337129.03 -21337128.79 0.0088 0.0043
 Neptune -63130-02-17 17:59 J -21336761.97 -21336761.75 -21336761.52 0.0088 0.0046
 Neptune -63129-02-20 14:09 J -21336394.09 -21336393.91 -21336393.68 0.0088 0.0056
 Neptune -63128-02-21 20:37 J -21336026.80 -21336026.64 -21336026.42 0.0088 0.0061
 Neptune -63127-02-24 15:49 J -21335658.99 -21335658.84 -21335658.65 0.0088 0.0068
 Neptune -63126-02-27 00:57 J -21335291.58 -21335291.46 -21335291.31 0.0088 0.0074
 Neptune -63125-02-29 15:49 J -21334923.91 -21334923.84 -21334923.70 0.0088 0.0082
 Neptune -63124-03-03 06:13 J -21334556.28 -21334556.24 -21334556.19 0.0088 0.0087
 Jupiter -63124-08-24 23:30 J -21334381.74 -21334381.52 -21334381.30 0.0512 0.0090
 Saturn -63124-12-18 22:33 J -21334265.70 -21334265.56 -21334265.41 0.0258 0.0208
 Saturn -63123-12-30 07:11 J -21333889.46 -21333889.20 -21333888.94 0.0258 0.0031
 Saturn -63121-01-10 16:33 J -21333513.01 -21333512.81 -21333512.60 0.0259 0.0153
 Jupiter -63112-08-29 06:57 J -21329994.33 -21329994.21 -21329994.07 0.0511 0.0422
 Saturn -63109-06-19 01:25 J -21328969.46 -21328969.44 -21328969.40 0.0305 0.0302
 Saturn -63108-07-04 04:47 J -21328589.54 -21328589.30 -21328589.07 0.0304 0.0030
 Saturn -63107-07-19 03:06 J -21328209.51 -21328209.37 -21328209.23 0.0302 0.0236
 Mars -63103-12-30 11:16 J -21326584.14 -21326584.03 -21326583.91 0.1571 0.1188
 Uranus -63102-08-03 15:21 J -21326368.00 -21326367.86 -21326367.72 0.0139 0.0114
 Uranus -63101-08-07 10:33 J -21325998.30 -21325998.06 -21325997.82 0.0140 0.0027
 Uranus -63100-08-11 16:18 J -21325629.04 -21325628.82 -21325628.60 0.0140 0.0065

Saturn -63094-12-25 07:40 J -21323302.40 -21323302.18 -21323301.96 0.0258 0.0113
 Saturn -63092-01-05 01:11 J -21322925.68 -21322925.45 -21322925.20 0.0259 0.0071
 Saturn -63091-01-16 15:35 J -21322548.91 -21322548.85 -21322548.75 0.0261 0.0248
 Jupiter -63082-02-17 15:06 J -21319230.02 -21319229.87 -21319229.70 0.0511 0.0357
 Saturn -63079-06-27 16:47 J -21318004.01 -21318003.80 -21318003.59 0.0304 0.0159
 Saturn -63078-07-12 12:28 J -21317624.20 -21317623.98 -21317623.75 0.0303 0.0110
 Jupiter -63070-02-22 11:01 J -21314842.29 -21314842.04 -21314841.80 0.0513 0.0069
 Neptune -63069-07-03 15:21 J -21314344.87 -21314344.86 -21314344.79 0.0089 0.0088
 Neptune -63067-07-08 10:33 J -21313610.17 -21313610.06 -21313609.90 0.0089 0.0076
 Neptune -63066-07-11 03:35 J -21313242.44 -21313242.35 -21313242.20 0.0089 0.0079
 Neptune -63065-07-12 07:40 J -21312875.34 -21312875.18 -21312874.99 0.0089 0.0063
 Pluto -63065-11-09 18:13 J -21312755.00 -21312754.74 -21312754.48 0.0064 0.0003
 Saturn -63065-12-19 17:01 J -21312714.95 -21312714.79 -21312714.61 0.0258 0.0190
 Neptune -63064-07-14 22:33 J -21312507.72 -21312507.56 -21312507.37 0.0089 0.0065
 Saturn -63064-12-30 23:59 J -21312338.76 -21312338.50 -21312338.25 0.0258 0.0012
 Neptune -63063-07-17 05:16 J -21312140.47 -21312140.28 -21312140.06 0.0089 0.0050
 Saturn -63062-01-11 16:04 J -21311962.00 -21311961.83 -21311961.64 0.0260 0.0169
 Uranus -63062-02-04 08:23 J -21311938.36 -21311938.15 -21311937.92 0.0139 0.0070
 Neptune -63062-07-19 15:21 J -21311773.05 -21311772.86 -21311772.62 0.0089 0.0052
 Uranus -63061-02-08 23:59 J -21311568.76 -21311568.50 -21311568.23 0.0139 0.0014
 Neptune -63061-07-21 03:21 J -21311405.56 -21311405.36 -21311405.12 0.0089 0.0037
 Uranus -63060-02-12 22:47 J -21311198.66 -21311198.55 -21311198.42 0.0138 0.0120
 Neptune -63060-07-23 09:21 J -21311038.33 -21311038.11 -21311037.87 0.0089 0.0039
 Neptune -63059-07-26 01:25 J -21310670.68 -21310670.44 -21310670.20 0.0089 0.0022
 Jupiter -63058-02-27 07:25 J -21310454.40 -21310454.19 -21310453.98 0.0514 0.0220
 Neptune -63058-07-28 04:47 J -21310303.55 -21310303.30 -21310303.06 0.0089 0.0025
 Neptune -63057-07-29 21:21 J -21309935.87 -21309935.61 -21309935.36 0.0089 0.0008
 Neptune -63056-08-01 01:11 J -21309568.68 -21309568.45 -21309568.19 0.0089 0.0011
 Mars -63056-12-24 12:42 J -21309423.06 -21309422.97 -21309422.87 0.1576 0.1320
 Neptune -63055-08-03 15:35 J -21309201.11 -21309200.85 -21309200.59 0.0089 0.0005

Neptune -63054-08-05 23:16 J -21308833.77 -21308833.53 -21308833.28 0.0089 0.0004
 Neptune -63053-08-07 08:23 J -21308466.40 -21308466.15 -21308465.89 0.0089 0.0019
 Jupiter -63053-08-19 20:09 J -21308453.85 -21308453.66 -21308453.47 0.0514 0.0254
 Neptune -63052-08-09 21:21 J -21308098.84 -21308098.61 -21308098.36 0.0089 0.0018
 Neptune -63051-08-12 02:23 J -21307731.62 -21307731.40 -21307731.14 0.0089 0.0035
 Saturn -63050-06-21 02:37 J -21307418.47 -21307418.39 -21307418.31 0.0304 0.0284
 Neptune -63050-08-14 19:11 J -21307363.93 -21307363.70 -21307363.46 0.0089 0.0032
 Saturn -63049-07-05 04:47 J -21307038.53 -21307038.30 -21307038.06 0.0304 0.0014
 Neptune -63049-08-15 22:18 J -21306996.78 -21306996.57 -21306996.35 0.0089 0.0047
 Saturn -63048-07-19 23:45 J -21306658.64 -21306658.51 -21306658.37 0.0302 0.0251
 Neptune -63048-08-18 14:37 J -21306629.09 -21306628.89 -21306628.65 0.0089 0.0045
 Mars -63047-07-01 13:11 J -21306312.16 -21306311.95 -21306311.75 0.1974 0.0638
 Neptune -63047-08-20 19:25 J -21306261.84 -21306261.69 -21306261.49 0.0089 0.0062
 Neptune -63046-08-23 08:37 J -21305894.31 -21305894.14 -21305893.92 0.0089 0.0059
 Neptune -63045-08-24 17:30 J -21305526.88 -21305526.77 -21305526.61 0.0089 0.0075
 Neptune -63044-08-27 02:09 J -21305159.56 -21305159.41 -21305159.25 0.0089 0.0072
 Neptune -63043-08-29 15:49 J -21304791.86 -21304791.84 -21304791.76 0.0089 0.0087
 Neptune -63042-08-31 20:37 J -21304424.70 -21304424.64 -21304424.53 0.0089 0.0084
 Jupiter -63041-08-24 05:16 J -21304066.52 -21304066.28 -21304066.05 0.0513 0.0068
 Saturn -63035-12-26 10:04 J -21301751.31 -21301751.08 -21301750.85 0.0258 0.0094
 Saturn -63033-01-06 22:33 J -21301374.80 -21301374.56 -21301374.31 0.0259 0.0087
 Jupiter -63029-08-28 18:57 J -21299678.84 -21299678.71 -21299678.57 0.0512 0.0408
 Saturn -63020-06-28 11:16 J -21296453.23 -21296453.03 -21296452.81 0.0304 0.0141
 Saturn -63019-07-13 10:04 J -21296073.28 -21296073.08 -21296072.86 0.0302 0.0131
 Uranus -63018-08-04 01:54 J -21295686.53 -21295686.42 -21295686.28 0.0139 0.0120
 Uranus -63017-08-07 21:06 J -21295316.86 -21295316.62 -21295316.37 0.0140 0.0022
 Uranus -63016-08-12 03:06 J -21294947.58 -21294947.37 -21294947.15 0.0140 0.0075
 Saturn -63006-12-21 10:33 J -21291164.24 -21291164.06 -21291163.86 0.0258 0.0170
 Saturn -63005-12-31 23:30 J -21290787.76 -21290787.52 -21290787.27 0.0259 0.0010
 Saturn -63003-01-12 19:40 J -21290410.83 -21290410.68 -21290410.49 0.0260 0.0187

63RD MILLENNIUM BCE

This is a list of transits of Moon in the 63rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-62999-02-16 19:25 J		-21288914.84	-21288914.69	-21288914.52	0.0511	0.0388	
Saturn	-62991-06-22 05:30 J		-21285867.39	-21285867.27	-21285867.15	0.0304	0.0263	
Saturn	-62990-07-07 03:35 J		-21285487.59	-21285487.35	-21285487.10	0.0304	0.0012	
Saturn	-62989-07-20 18:57 J		-21285107.80	-21285107.71	-21285107.59	0.0302	0.0274	
Jupiter	-62987-02-21 16:33 J		-21284527.04	-21284526.81	-21284526.58	0.0512	0.0095	
Neptune	-62986-01-02 05:16 J		-21284212.28	-21284212.28	-21284212.28	0.0088	0.0088	
Neptune	-62985-01-04 10:33 J		-21283845.09	-21283845.06	-21283844.95	0.0088	0.0086	
Neptune	-62984-01-06 06:42 J		-21283477.33	-21283477.22	-21283477.05	0.0088	0.0076	
Neptune	-62983-01-08 15:35 J		-21283110.00	-21283109.85	-21283109.70	0.0088	0.0072	
Neptune	-62982-01-11 08:23 J		-21282742.34	-21282742.15	-21282741.95	0.0088	0.0061	
Neptune	-62981-01-13 20:23 J		-21282374.83	-21282374.65	-21282374.45	0.0088	0.0059	
Neptune	-62980-01-15 08:09 J		-21282007.38	-21282007.16	-21282006.92	0.0088	0.0048	
Neptune	-62979-01-18 00:57 J		-21281639.66	-21281639.46	-21281639.23	0.0088	0.0046	
Neptune	-62978-01-20 08:52 J		-21281272.36	-21281272.13	-21281271.87	0.0088	0.0034	
Uranus	-62978-02-04 18:57 J		-21281256.91	-21281256.71	-21281256.49	0.0139	0.0078	
Neptune	-62977-01-23 05:16 J		-21280904.51	-21280904.28	-21280904.02	0.0088	0.0032	
Uranus	-62977-02-09 09:35 J		-21280887.34	-21280887.10	-21280886.83	0.0139	0.0033	
Saturn	-62977-12-15 22:04 J		-21280576.63	-21280576.58	-21280576.52	0.0258	0.0251	
Mars	-62977-12-26 09:35 J		-21280566.29	-21280566.10	-21280565.91	0.1575	0.0247	

Neptune -62976-01-24 11:45 J -21280537.25 -21280537.01 -21280536.74 0.0088 0.0019
 Uranus -62976-02-13 09:21 J -21280517.22 -21280517.11 -21280516.94 0.0138 0.0114
 Pluto -62976-05-16 19:11 J -21280424.94 -21280424.70 -21280424.44 0.0081 0.0010
 Saturn -62976-12-27 09:35 J -21280200.34 -21280200.10 -21280199.85 0.0258 0.0074
 Neptune -62975-01-27 08:23 J -21280169.41 -21280169.15 -21280168.88 0.0088 0.0017
 Jupiter -62975-02-26 21:49 J -21280138.81 -21280138.59 -21280138.37 0.0513 0.0196
 Saturn -62974-01-07 18:42 J -21279823.95 -21279823.72 -21279823.48 0.0259 0.0107
 Neptune -62974-01-29 16:18 J -21279802.07 -21279801.82 -21279801.56 0.0088 0.0004
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 Neptune -62962-02-26 11:30 J -21275391.10 -21275391.02 -21275390.90 0.0088 0.0082
 Neptune -62961-02-29 01:54 J -21275023.49 -21275023.42 -21275023.28 0.0088 0.0081
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 Saturn -62931-07-08 05:01 J -21263936.54 -21263936.29 -21263936.05 0.0303 0.0038
 Saturn -62930-07-22 21:21 J -21263556.61 -21263556.61 -21263556.60 0.0301 0.0301
 Saturn -62918-12-18 00:57 J -21259025.56 -21259025.46 -21259025.34 0.0258 0.0233
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 Mars -62684-07-03 22:47 J -21173723.64 -21173723.55 -21173723.46 0.1972 0.1734
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 Neptune -62395-08-09 22:18 J -21068129.77 -21068129.57 -21068129.33 0.0089 0.0040
 Jupiter -62394-02-21 20:09 J -21067933.89 -21067933.66 -21067933.42 0.0511 0.0118
 Neptune -62394-08-12 08:37 J -21067762.35 -21067762.14 -21067761.88 0.0089 0.0039
 Neptune -62393-08-13 20:52 J -21067394.81 -21067394.63 -21067394.42 0.0089 0.0055
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Uranus -62391-02-02 22:33 J -21066856.60 -21066856.56 -21066856.46 0.0140 0.0134
 Neptune -62391-08-18 17:59 J -21066659.89 -21066659.75 -21066659.59 0.0089 0.0070
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 Neptune -62390-08-20 21:21 J -21066292.76 -21066292.61 -21066292.44 0.0089 0.0068
 Uranus -62389-02-12 15:49 J -21066117.06 -21066116.84 -21066116.60 0.0139 0.0058
 Neptune -62389-08-22 14:09 J -21065924.98 -21065924.91 -21065924.82 0.0089 0.0084
 Neptune -62388-08-24 18:13 J -21065557.81 -21065557.74 -21065557.63 0.0089 0.0083
 Saturn -62388-12-20 00:42 J -21065440.59 -21065440.47 -21065440.33 0.0258 0.0219
 Saturn -62387-12-31 16:33 J -21065064.05 -21065063.81 -21065063.56 0.0258 0.0038
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 Jupiter -62377-08-19 13:11 J -21061545.14 -21061544.95 -21061544.75 0.0515 0.0230
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 Saturn -62355-01-17 23:45 J -21053723.61 -21053723.51 -21053723.38 0.0260 0.0229
 Jupiter -62353-08-28 13:40 J -21052770.10 -21052769.93 -21052769.76 0.0513 0.0344
 Uranus -62346-08-07 16:18 J -21050234.99 -21050234.82 -21050234.63 0.0139 0.0089
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 Uranus -62344-08-15 16:04 J -21049495.96 -21049495.83 -21049495.66 0.0140 0.0108
 Saturn -62343-06-27 06:28 J -21049180.39 -21049180.23 -21049180.05 0.0304 0.0212
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 Pluto -62328-11-13 22:18 J -21043561.73 -21043561.57 -21043561.35 0.0064 0.0042
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Pluto -62327-11-15 07:25 J -21043195.38 -21043195.19 -21043194.96 0.0064 0.0041
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Saturn -62299-12-27 11:45 J -21032926.23 -21032926.01 -21032925.78 0.0258 0.0102
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 Uranus -62223-02-04 05:59 J -21005493.38 -21005493.25 -21005493.10 0.0140 0.0116
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 Jupiter -62211-08-19 12:57 J -21000914.16 -21000913.96 -21000913.77 0.0515 0.0252
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Saturn -62091-01-06 01:11 J -20957309.70 -20957309.45 -20957309.20 0.0259 0.0037
 Saturn -62090-01-17 11:16 J -20956933.18 -20956933.03 -20956932.85 0.0259 0.0198
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 Neptune -62081-07-08 21:35 J -20953472.69 -20953472.60 -20953472.47 0.0089 0.0080
 Pluto -62081-11-16 10:33 J -20953342.21 -20953342.06 -20953341.87 0.0064 0.0047
 Neptune -62080-07-11 02:23 J -20953105.57 -20953105.40 -20953105.23 0.0089 0.0064
 Neptune -62079-07-13 16:18 J -20952737.98 -20952737.82 -20952737.62 0.0089 0.0064
 Saturn -62078-06-24 10:18 J -20952392.18 -20952392.07 -20952391.93 0.0304 0.0258
 Neptune -62078-07-16 00:57 J -20952370.65 -20952370.46 -20952370.25 0.0089 0.0049
 Saturn -62077-07-08 11:30 J -20952012.26 -20952012.02 -20952011.79 0.0304 0.0020
 Neptune -62077-07-17 10:47 J -20952003.27 -20952003.05 -20952002.83 0.0089 0.0048
 Neptune -62076-07-19 23:30 J -20951635.74 -20951635.52 -20951635.28 0.0089 0.0033
 Saturn -62076-07-23 11:01 J -20951632.08 -20951632.04 -20951631.98 0.0303 0.0295
 Neptune -62075-07-22 04:18 J -20951268.55 -20951268.32 -20951268.07 0.0089 0.0032
 Neptune -62074-07-24 20:52 J -20950900.87 -20950900.63 -20950900.38 0.0089 0.0016
 Neptune -62073-07-25 23:59 J -20950533.74 -20950533.50 -20950533.25 0.0089 0.0016
 Neptune -62072-07-28 16:18 J -20950166.07 -20950165.82 -20950165.56 0.0089 0.0001
 Neptune -62071-07-30 21:06 J -20949798.87 -20949798.62 -20949798.37 0.0089 0.0000
 Neptune -62070-08-02 10:18 J -20949431.32 -20949431.07 -20949430.81 0.0089 0.0016
 Neptune -62069-08-03 19:25 J -20949063.92 -20949063.69 -20949063.44 0.0089 0.0017
 Neptune -62068-08-06 03:49 J -20948696.56 -20948696.34 -20948696.08 0.0089 0.0033
 Neptune -62067-08-08 17:59 J -20948328.97 -20948328.75 -20948328.51 0.0089 0.0033
 Neptune -62066-08-10 21:49 J -20947961.78 -20947961.59 -20947961.35 0.0089 0.0049
 Neptune -62065-08-12 14:52 J -20947594.08 -20947593.88 -20947593.66 0.0089 0.0048
 Neptune -62064-08-14 17:30 J -20947226.92 -20947226.77 -20947226.58 0.0089 0.0065
 Saturn -62064-12-20 15:06 J -20947099.01 -20947098.87 -20947098.72 0.0259 0.0215
 Neptune -62063-08-17 09:35 J -20946859.26 -20946859.10 -20946858.91 0.0089 0.0065
 Saturn -62063-12-31 22:18 J -20946722.81 -20946722.57 -20946722.32 0.0258 0.0041
 Jupiter -62062-02-20 07:11 J -20946672.41 -20946672.20 -20946671.98 0.0511 0.0186

Neptune -62062-08-19 14:37 J -20946491.97 -20946491.89 -20946491.76 0.0089 0.0081
 Saturn -62061-01-12 14:37 J -20946346.10 -20946345.89 -20946345.67 0.0259 0.0123
 Neptune -62061-08-21 03:06 J -20946124.48 -20946124.37 -20946124.25 0.0089 0.0079
 Uranus -62055-02-05 04:47 J -20944130.46 -20944130.30 -20944130.12 0.0140 0.0104
 Uranus -62054-02-10 05:16 J -20943760.54 -20943760.28 -20943760.01 0.0140 0.0002
 Uranus -62053-02-14 22:04 J -20943390.77 -20943390.58 -20943390.39 0.0139 0.0090
 Jupiter -62050-02-25 05:30 J -20942284.50 -20942284.27 -20942284.03 0.0512 0.0159
 Saturn -62048-07-02 07:54 J -20941426.40 -20941426.17 -20941425.94 0.0304 0.0110
 Saturn -62047-07-17 03:35 J -20941046.55 -20941046.35 -20941046.13 0.0303 0.0168
 Jupiter -62045-08-18 09:49 J -20940283.28 -20940283.09 -20940282.91 0.0516 0.0304
 Jupiter -62038-03-01 18:13 J -20937896.85 -20937896.74 -20937896.62 0.0513 0.0440
 Saturn -62034-12-27 13:25 J -20936135.15 -20936134.94 -20936134.71 0.0259 0.0115
 Jupiter -62033-08-23 07:11 J -20935895.42 -20935895.20 -20935894.98 0.0514 0.0022
 Saturn -62032-01-06 23:01 J -20935758.79 -20935758.54 -20935758.28 0.0259 0.0053
 Saturn -62031-01-18 08:52 J -20935382.26 -20935382.13 -20935381.97 0.0260 0.0212
 Jupiter -62021-08-27 16:47 J -20931508.00 -20931507.80 -20931507.60 0.0513 0.0277
 Saturn -62019-06-25 16:04 J -20930840.97 -20930840.83 -20930840.67 0.0303 0.0234
 Saturn -62018-07-10 18:57 J -20930460.94 -20930460.71 -20930460.48 0.0304 0.0045
 Uranus -62010-08-09 15:35 J -20927509.05 -20927508.85 -20927508.63 0.0139 0.0069
 Uranus -62009-08-12 23:30 J -20927139.76 -20927139.52 -20927139.27 0.0139 0.0039
 Uranus -62008-08-17 15:21 J -20926769.95 -20926769.86 -20926769.75 0.0140 0.0127
 Saturn -62005-12-21 12:13 J -20925548.16 -20925547.99 -20925547.83 0.0259 0.0194
 Saturn -62003-01-02 02:23 J -20925171.64 -20925171.40 -20925171.16 0.0259 0.0024
 Saturn -62002-01-13 21:06 J -20924794.83 -20924794.62 -20924794.41 0.0259 0.0138

62ND MILLENNIUM BCE

This is a list of transits of Moon in the 62nd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Neptune	-62000-01-01 11:59 J		-20924076.05	-20924076.00	-20924075.94	0.0088	0.0086	
Neptune	-61999-01-04 05:45 J		-20923708.35	-20923708.26	-20923708.13	0.0088	0.0081	
Mars	-61999-12-28 03:21 J		-20923350.54	-20923350.36	-20923350.17	0.1587	0.0543	
Neptune	-61998-01-06 15:49 J		-20923340.99	-20923340.84	-20923340.69	0.0088	0.0071	
Neptune	-61997-01-09 05:01 J		-20922973.45	-20922973.29	-20922973.09	0.0088	0.0066	
Neptune	-61996-01-10 19:54 J		-20922605.86	-20922605.67	-20922605.46	0.0088	0.0056	
Neptune	-61995-01-13 05:01 J		-20922238.49	-20922238.29	-20922238.04	0.0088	0.0050	
Neptune	-61994-01-16 00:13 J		-20921870.70	-20921870.49	-20921870.24	0.0088	0.0039	
Neptune	-61993-01-18 07:11 J		-20921503.44	-20921503.20	-20921502.94	0.0088	0.0032	
Neptune	-61992-01-20 04:04 J		-20921135.59	-20921135.33	-20921135.08	0.0088	0.0023	
Pluto	-61992-05-23 15:06 J		-20921011.96	-20921011.87	-20921011.76	0.0080	0.0073	
Neptune	-61991-01-22 10:33 J		-20920768.31	-20920768.06	-20920767.80	0.0088	0.0015	
Neptune	-61990-01-25 05:45 J		-20920400.52	-20920400.26	-20920399.99	0.0088	0.0007	
Neptune	-61989-01-27 15:06 J		-20920033.12	-20920032.87	-20920032.61	0.0088	0.0003	
Saturn	-61989-07-03 10:47 J		-20919875.29	-20919875.05	-20919874.81	0.0303	0.0080	
Neptune	-61988-01-29 05:59 J		-20919665.52	-20919665.25	-20919664.98	0.0088	0.0010	
Saturn	-61988-07-18 07:11 J		-20919495.38	-20919495.20	-20919495.01	0.0303	0.0196	
Neptune	-61987-01-31 19:25 J		-20919297.93	-20919297.69	-20919297.43	0.0088	0.0021	
Neptune	-61986-02-03 05:45 J		-20918930.50	-20918930.26	-20918929.99	0.0088	0.0027	
Neptune	-61985-02-06 00:28 J		-20918562.71	-20918562.48	-20918562.24	0.0088	0.0037	
Neptune	-61984-02-07 07:11 J		-20918195.42	-20918195.20	-20918194.95	0.0088	0.0043	
Neptune	-61983-02-10 03:49 J		-20917827.54	-20917827.34	-20917827.12	0.0088	0.0054	
Neptune	-61982-02-12 09:49 J		-20917460.26	-20917460.09	-20917459.87	0.0088	0.0060	
Neptune	-61981-02-15 05:30 J		-20917092.40	-20917092.27	-20917092.08	0.0088	0.0072	
Neptune	-61980-02-16 14:09 J		-20916725.01	-20916724.91	-20916724.75	0.0088	0.0076	

Jupiter -61979-02-19 05:45 J -20916357.48 -20916357.26 -20916357.04 0.0510 0.0233
 Neptune -61979-02-19 05:59 J -20916357.28 -20916357.25 -20916357.17 0.0088 0.0087 *
 Saturn -61975-12-28 15:21 J -20914584.10 -20914583.86 -20914583.62 0.0259 0.0095
 Saturn -61973-01-08 23:01 J -20914207.78 -20914207.54 -20914207.29 0.0259 0.0070
 Saturn -61972-01-19 15:35 J -20913830.95 -20913830.85 -20913830.73 0.0260 0.0231
 Uranus -61971-02-05 16:47 J -20913448.97 -20913448.80 -20913448.62 0.0140 0.0101
 Uranus -61970-02-10 16:04 J -20913079.10 -20913078.83 -20913078.56 0.0140 0.0002
 Uranus -61969-02-15 09:06 J -20912709.25 -20912709.12 -20912708.94 0.0139 0.0108
 Jupiter -61967-02-24 00:28 J -20911969.71 -20911969.48 -20911969.26 0.0512 0.0105
 Jupiter -61962-08-18 22:04 J -20909967.74 -20909967.58 -20909967.42 0.0516 0.0351
 Saturn -61960-06-27 06:57 J -20909289.38 -20909289.21 -20909289.03 0.0303 0.0203
 Saturn -61959-07-12 07:25 J -20908909.42 -20908909.19 -20908908.96 0.0303 0.0075
 Jupiter -61955-03-01 07:40 J -20907581.32 -20907581.18 -20907581.02 0.0513 0.0403
 Jupiter -61950-08-23 08:23 J -20905580.38 -20905580.15 -20905579.91 0.0515 0.0075
 Saturn -61946-12-23 17:45 J -20903996.93 -20903996.76 -20903996.57 0.0259 0.0175
 Saturn -61944-01-03 11:30 J -20903620.27 -20903620.02 -20903619.78 0.0259 0.0005
 Saturn -61943-01-15 00:57 J -20903243.65 -20903243.46 -20903243.25 0.0259 0.0158
 Jupiter -61938-08-27 18:42 J -20901192.91 -20901192.72 -20901192.52 0.0514 0.0238
 Saturn -61930-07-05 20:52 J -20898323.86 -20898323.63 -20898323.39 0.0303 0.0049
 Saturn -61929-07-19 20:09 J -20897943.81 -20897943.66 -20897943.51 0.0303 0.0226
 Uranus -61926-08-10 06:13 J -20896827.46 -20896827.24 -20896827.00 0.0139 0.0047
 Uranus -61925-08-13 13:11 J -20896458.19 -20896457.95 -20896457.70 0.0139 0.0035
 Mars -61920-12-30 02:37 J -20894493.57 -20894493.39 -20894493.21 0.1585 0.0219
 Neptune -61918-07-06 17:01 J -20893939.84 -20893939.79 -20893939.67 0.0089 0.0084
 Neptune -61917-07-07 22:33 J -20893572.64 -20893572.56 -20893572.45 0.0089 0.0082
 Saturn -61917-12-18 08:52 J -20893409.19 -20893409.13 -20893409.05 0.0260 0.0249
 Neptune -61916-07-10 11:59 J -20893205.14 -20893205.00 -20893204.81 0.0089 0.0069
 Saturn -61916-12-29 16:18 J -20893033.06 -20893032.82 -20893032.57 0.0259 0.0074
 Neptune -61915-07-12 21:35 J -20892837.75 -20892837.60 -20892837.43 0.0089 0.0066
 Saturn -61914-01-10 05:45 J -20892656.48 -20892656.26 -20892656.02 0.0259 0.0093

Neptune -61914-07-15 05:30 J -20892470.46 -20892470.27 -20892470.04 0.0089 0.0052
 Saturn -61913-01-22 03:21 J -20892279.42 -20892279.36 -20892279.30 0.0260 0.0251
 Neptune -61913-07-16 19:54 J -20892102.87 -20892102.67 -20892102.46 0.0089 0.0049
 Neptune -61912-07-19 00:28 J -20891735.71 -20891735.48 -20891735.24 0.0089 0.0035
 Neptune -61911-07-21 17:01 J -20891368.01 -20891367.79 -20891367.54 0.0089 0.0033
 Neptune -61910-07-23 20:23 J -20891000.89 -20891000.65 -20891000.40 0.0089 0.0020
 Neptune -61909-07-25 12:28 J -20890633.23 -20890632.98 -20890632.72 0.0089 0.0016
 Neptune -61908-07-27 18:13 J -20890265.98 -20890265.74 -20890265.49 0.0089 0.0003
 Neptune -61907-07-30 06:42 J -20889898.49 -20889898.22 -20889897.96 0.0089 0.0002
 Neptune -61906-08-01 16:18 J -20889531.05 -20889530.82 -20889530.57 0.0089 0.0014
 Neptune -61905-08-02 23:16 J -20889163.78 -20889163.53 -20889163.26 0.0089 0.0017
 Neptune -61904-08-05 14:09 J -20888796.13 -20888795.91 -20888795.67 0.0089 0.0030
 Neptune -61903-08-07 17:59 J -20888428.97 -20888428.75 -20888428.50 0.0089 0.0034
 Neptune -61902-08-10 11:01 J -20888061.24 -20888061.04 -20888060.81 0.0089 0.0047
 Saturn -61901-06-29 00:28 J -20887737.68 -20887737.48 -20887737.28 0.0303 0.0169
 Neptune -61901-08-11 14:37 J -20887694.09 -20887693.89 -20887693.68 0.0089 0.0051
 Saturn -61900-07-13 20:52 J -20887357.86 -20887357.63 -20887357.39 0.0303 0.0108
 Neptune -61900-08-14 06:13 J -20887326.41 -20887326.24 -20887326.05 0.0089 0.0063
 Neptune -61899-08-16 12:57 J -20886959.12 -20886958.96 -20886958.80 0.0089 0.0067
 Neptune -61898-08-18 23:30 J -20886591.61 -20886591.52 -20886591.37 0.0089 0.0079
 Neptune -61897-08-20 10:47 J -20886224.12 -20886224.05 -20886223.95 0.0089 0.0083
 Jupiter -61896-02-18 05:59 J -20886042.44 -20886042.25 -20886042.05 0.0510 0.0270
 Uranus -61887-02-06 06:57 J -20882767.40 -20882767.21 -20882767.01 0.0140 0.0090
 Saturn -61887-12-25 05:16 J -20882445.47 -20882445.28 -20882445.08 0.0259 0.0154
 Uranus -61886-02-11 05:30 J -20882397.54 -20882397.27 -20882397.00 0.0140 0.0013
 Saturn -61885-01-05 19:25 J -20882068.94 -20882068.69 -20882068.43 0.0259 0.0018
 Uranus -61885-02-16 00:28 J -20882027.64 -20882027.48 -20882027.31 0.0139 0.0105
 Saturn -61884-01-16 04:47 J -20881692.48 -20881692.30 -20881692.10 0.0260 0.0178
 Jupiter -61884-02-23 10:18 J -20881654.31 -20881654.07 -20881653.83 0.0511 0.0065
 Jupiter -61879-08-17 19:40 J -20879652.83 -20879652.68 -20879652.54 0.0516 0.0412

Jupiter -61872-02-27 22:47 J -20877266.72 -20877266.55 -20877266.37 0.0512 0.0351
 Saturn -61872-06-22 16:04 J -20877151.89 -20877151.83 -20877151.76 0.0303 0.0290
 Saturn -61871-07-07 17:59 J -20876771.98 -20876771.75 -20876771.52 0.0303 0.0014
 Saturn -61870-07-22 17:16 J -20876391.90 -20876391.78 -20876391.66 0.0302 0.0261
 Jupiter -61867-08-22 09:49 J -20875265.30 -20875265.09 -20875264.87 0.0515 0.0130
 Saturn -61858-12-20 12:28 J -20871858.10 -20871857.98 -20871857.85 0.0260 0.0228
 Saturn -61857-12-31 00:13 J -20871481.73 -20871481.49 -20871481.25 0.0259 0.0054
 Saturn -61855-01-11 18:57 J -20871104.93 -20871104.71 -20871104.49 0.0260 0.0113
 Jupiter -61855-08-27 04:33 J -20870877.53 -20870877.31 -20870877.10 0.0514 0.0199
 Uranus -61843-08-06 05:30 J -20866515.33 -20866515.27 -20866515.19 0.0138 0.0133
 Saturn -61842-07-01 17:01 J -20866186.01 -20866185.79 -20866185.56 0.0303 0.0136
 Uranus -61842-08-10 22:04 J -20866145.81 -20866145.58 -20866145.36 0.0139 0.0052
 Saturn -61841-07-15 12:13 J -20865806.20 -20865805.99 -20865805.77 0.0303 0.0143
 Uranus -61841-08-14 04:04 J -20865776.55 -20865776.33 -20865776.08 0.0139 0.0057
 Mars -61841-12-31 20:52 J -20865636.76 -20865636.63 -20865636.51 0.1584 0.1135
 Pluto -61836-11-16 23:30 J -20863855.72 -20863855.52 -20863855.28 0.0064 0.0036
 Neptune -61835-01-03 06:13 J -20863808.34 -20863808.24 -20863808.12 0.0088 0.0080
 Pluto -61835-11-18 16:47 J -20863488.95 -20863488.80 -20863488.63 0.0064 0.0049
 Neptune -61834-01-05 18:57 J -20863440.83 -20863440.71 -20863440.59 0.0088 0.0079
 Neptune -61833-01-08 10:47 J -20863073.21 -20863073.05 -20863072.85 0.0088 0.0064
 Neptune -61832-01-09 18:42 J -20862705.89 -20862705.72 -20862705.52 0.0088 0.0063
 Neptune -61831-01-12 13:54 J -20862338.11 -20862337.92 -20862337.67 0.0088 0.0047
 Neptune -61830-01-14 20:09 J -20861970.86 -20861970.66 -20861970.42 0.0088 0.0046
 Neptune -61829-01-17 16:18 J -20861603.05 -20861602.82 -20861602.55 0.0088 0.0030
 Neptune -61828-01-18 23:30 J -20861235.75 -20861235.52 -20861235.26 0.0088 0.0030
 Saturn -61828-12-26 15:21 J -20860894.07 -20860893.86 -20860893.64 0.0259 0.0132
 Neptune -61827-01-21 17:16 J -20860868.04 -20860867.78 -20860867.50 0.0088 0.0012
 Saturn -61826-01-07 00:28 J -20860517.74 -20860517.48 -20860517.23 0.0259 0.0037
 Neptune -61826-01-24 04:33 J -20860500.56 -20860500.31 -20860500.06 0.0088 0.0012
 Saturn -61825-01-18 13:40 J -20860141.08 -20860140.93 -20860140.77 0.0260 0.0201

Neptune -61825-01-26 18:28 J -20860133.01 -20860132.73 -20860132.46 0.0088 0.0006
 Neptune -61824-01-28 10:04 J -20859765.33 -20859765.08 -20859764.82 0.0088 0.0006
 Neptune -61823-01-30 18:57 J -20859397.96 -20859397.71 -20859397.44 0.0088 0.0023
 Neptune -61822-02-02 14:09 J -20859030.15 -20859029.91 -20859029.65 0.0088 0.0023
 Neptune -61821-02-04 20:23 J -20858662.87 -20858662.65 -20858662.40 0.0088 0.0040
 Neptune -61820-02-06 16:47 J -20858295.02 -20858294.80 -20858294.55 0.0088 0.0040
 Neptune -61819-02-08 23:16 J -20857927.71 -20857927.53 -20857927.32 0.0088 0.0058
 Neptune -61818-02-11 17:59 J -20857559.95 -20857559.75 -20857559.53 0.0088 0.0057
 Neptune -61817-02-14 03:35 J -20857192.46 -20857192.35 -20857192.18 0.0088 0.0074
 Neptune -61816-02-15 17:59 J -20856824.87 -20856824.75 -20856824.57 0.0088 0.0073
 Jupiter -61813-02-18 10:47 J -20855727.24 -20855727.05 -20855726.86 0.0509 0.0316
 Saturn -61813-06-24 17:16 J -20855599.90 -20855599.78 -20855599.66 0.0303 0.0256
 Saturn -61812-07-09 18:57 J -20855219.94 -20855219.71 -20855219.47 0.0303 0.0023
 Saturn -61811-07-24 15:21 J -20854839.89 -20854839.86 -20854839.81 0.0302 0.0296
 Uranus -61803-02-06 23:30 J -20852085.71 -20852085.52 -20852085.31 0.0140 0.0084
 Uranus -61802-02-11 20:52 J -20851715.89 -20851715.63 -20851715.36 0.0140 0.0019
 Uranus -61801-02-16 16:18 J -20851345.91 -20851345.82 -20851345.70 0.0139 0.0126
 Jupiter -61801-02-22 19:40 J -20851339.91 -20851339.68 -20851339.44 0.0510 0.0009
 Saturn -61799-12-21 20:37 J -20850306.78 -20850306.64 -20850306.48 0.0260 0.0207
 Saturn -61797-01-02 14:23 J -20849930.13 -20849929.90 -20849929.65 0.0260 0.0034
 Saturn -61796-01-13 07:40 J -20849553.38 -20849553.18 -20849552.95 0.0260 0.0135
 Jupiter -61796-08-16 21:06 J -20849337.70 -20849337.62 -20849337.53 0.0517 0.0474
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Saturn -61472-01-15 19:25 J -20731209.88 -20731209.69 -20731209.47 0.0259 0.0146
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 Jupiter -61457-02-25 01:40 J -20725691.66 -20725691.43 -20725691.21 0.0511 0.0096
 Jupiter -61452-08-18 23:30 J -20723689.66 -20723689.52 -20723689.36 0.0517 0.0382
 Jupiter -61445-03-01 05:01 J -20721303.40 -20721303.29 -20721303.18 0.0512 0.0456
 Saturn -61445-12-30 17:01 J -20720999.02 -20720998.79 -20720998.57 0.0259 0.0095
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 Jupiter -61440-08-23 11:16 J -20719302.27 -20719302.03 -20719301.80 0.0516 0.0020
 Mars -61431-12-30 06:13 J -20715886.42 -20715886.24 -20715886.06 0.1594 0.0010
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 Saturn -61429-07-13 17:01 J -20715325.01 -20715324.79 -20715324.55 0.0303 0.0070
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 Jupiter -61345-08-27 17:45 J -20684598.94 -20684598.76 -20684598.57 0.0514 0.0317
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 Neptune -61342-01-03 08:23 J -20683740.25 -20683740.15 -20683740.06 0.0088 0.0082
 Neptune -61341-01-05 14:23 J -20683372.98 -20683372.90 -20683372.76 0.0088 0.0081
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 Neptune -61339-01-09 18:57 J -20682637.86 -20682637.71 -20682637.50 0.0088 0.0063
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 Neptune -61338-01-12 08:09 J -20682270.37 -20682270.16 -20682269.91 0.0088 0.0047
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 Uranus -61337-08-17 12:57 J -20681687.10 -20681686.96 -20681686.77 0.0139 0.0106
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Saturn -61325-01-13 17:45 J -20677520.99 -20677520.76 -20677520.52 0.0258 0.0090
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 Saturn -61311-07-16 11:30 J -20672223.25 -20672223.02 -20672222.79 0.0303 0.0095
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 Jupiter -61303-02-18 22:47 J -20669448.75 -20669448.55 -20669448.34 0.0509 0.0274
 Uranus -61300-02-05 05:16 J -20668366.35 -20668366.28 -20668366.18 0.0141 0.0133
 Uranus -61299-02-10 11:01 J -20667996.29 -20667996.04 -20667995.79 0.0141 0.0037
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 Jupiter -61286-08-18 21:49 J -20663058.71 -20663058.59 -20663058.45 0.0517 0.0415
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 Jupiter -61279-02-28 23:01 J -20660672.66 -20660672.54 -20660672.41 0.0512 0.0431
 Jupiter -61274-08-23 15:35 J -20658671.09 -20658670.85 -20658670.62 0.0516 0.0044
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 Neptune -61254-07-20 22:18 J -20651399.80 -20651399.57 -20651399.33 0.0089 0.0027
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 Saturn -61236-01-20 07:11 J -20645006.36 -20645006.20 -20645006.03 0.0259 0.0194
 Mars -61226-12-29 20:09 J -20641010.84 -20641010.66 -20641010.49 0.1599 0.0753
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 Uranus -61131-02-11 18:42 J -20606632.97 -20606632.72 -20606632.47 0.0141 0.0017
 Uranus -61130-02-16 08:52 J -20606263.31 -20606263.13 -20606262.91 0.0140 0.0091
 Jupiter -61125-02-23 06:42 J -20604430.46 -20604430.22 -20604429.97 0.0510 0.0016
 Saturn -61121-12-31 02:23 J -20602657.62 -20602657.40 -20602657.16 0.0259 0.0110
 Jupiter -61120-08-17 19:40 J -20602427.78 -20602427.68 -20602427.56 0.0518 0.0448
 Saturn -61119-01-11 13:54 J -20602281.16 -20602280.92 -20602280.68 0.0259 0.0056
 Saturn -61118-01-23 08:37 J -20601904.23 -20601904.14 -20601904.02 0.0259 0.0232
 Jupiter -61113-02-28 08:37 J -20600042.29 -20600042.14 -20600041.98 0.0512 0.0373
 Jupiter -61108-08-22 16:33 J -20598040.04 -20598039.81 -20598039.59 0.0516 0.0074
 Saturn -61106-06-28 09:49 J -20597365.19 -20597365.09 -20597364.97 0.0302 0.0271
 Mars -61106-07-07 04:18 J -20597356.38 -20597356.32 -20597356.25 0.1950 0.1797
 Saturn -61105-07-12 06:13 J -20596985.49 -20596985.24 -20596984.99 0.0303 0.0007
 Saturn -61104-07-27 00:42 J -20596605.55 -20596605.47 -20596605.37 0.0303 0.0279

Pluto -61097-11-21 23:30 J -20593930.77 -20593930.52 -20593930.27 0.0064 0.0005
 Jupiter -61096-08-26 23:16 J -20593652.74 -20593652.53 -20593652.32 0.0515 0.0237
 Neptune -61095-07-08 20:09 J -20593336.75 -20593336.66 -20593336.55 0.0089 0.0080
 Neptune -61094-07-11 07:11 J -20592969.33 -20592969.20 -20592969.03 0.0089 0.0072
 Neptune -61093-07-12 18:42 J -20592601.87 -20592601.72 -20592601.52 0.0089 0.0062
 Neptune -61092-07-15 00:57 J -20592234.65 -20592234.46 -20592234.23 0.0089 0.0053
 Saturn -61092-12-26 10:04 J -20592070.24 -20592070.08 -20592069.91 0.0260 0.0189
 Neptune -61091-07-17 17:16 J -20591867.00 -20591866.78 -20591866.56 0.0089 0.0042
 Saturn -61090-01-07 00:42 J -20591693.72 -20591693.47 -20591693.22 0.0259 0.0023
 Neptune -61090-07-19 20:52 J -20591499.86 -20591499.63 -20591499.39 0.0089 0.0035
 Saturn -61089-01-18 09:06 J -20591317.33 -20591317.12 -20591316.90 0.0259 0.0148
 Neptune -61089-07-21 13:54 J -20591132.17 -20591131.92 -20591131.67 0.0089 0.0024
 Neptune -61088-07-23 17:59 J -20590764.99 -20590764.75 -20590764.50 0.0089 0.0017
 Neptune -61087-07-26 09:06 J -20590397.38 -20590397.12 -20590396.86 0.0089 0.0005
 Uranus -61087-08-11 13:25 J -20590381.14 -20590380.94 -20590380.72 0.0138 0.0073
 Neptune -61086-07-28 17:01 J -20590030.03 -20590029.79 -20590029.54 0.0089 0.0003
 Uranus -61086-08-16 05:30 J -20590011.51 -20590011.27 -20590011.02 0.0138 0.0035
 Neptune -61085-07-30 03:21 J -20589662.62 -20589662.36 -20589662.10 0.0089 0.0014
 Uranus -61085-08-19 10:47 J -20589642.17 -20589642.05 -20589641.92 0.0139 0.0118
 Neptune -61084-08-01 15:35 J -20589295.08 -20589294.85 -20589294.60 0.0089 0.0021
 Neptune -61083-08-03 21:06 J -20588927.86 -20588927.62 -20588927.38 0.0089 0.0032
 Neptune -61082-08-06 13:25 J -20588560.16 -20588559.94 -20588559.71 0.0089 0.0039
 Neptune -61081-08-07 16:18 J -20588193.01 -20588192.82 -20588192.60 0.0089 0.0052
 Neptune -61080-08-10 09:06 J -20587825.30 -20587825.12 -20587824.91 0.0089 0.0059
 Neptune -61079-08-12 13:40 J -20587458.06 -20587457.93 -20587457.77 0.0089 0.0071
 Neptune -61078-08-15 03:35 J -20587090.46 -20587090.35 -20587090.20 0.0089 0.0076
 Neptune -61077-08-16 12:28 J -20586722.99 -20586722.98 -20586722.94 0.0089 0.0089
 Saturn -61076-07-06 00:13 J -20586399.70 -20586399.49 -20586399.28 0.0303 0.0124
 Saturn -61075-07-21 00:57 J -20586019.66 -20586019.46 -20586019.25 0.0303 0.0156
 Mars -61067-01-02 17:45 J -20583296.86 -20583296.76 -20583296.66 0.1595 0.1299

Saturn	-61063-12-21 15:21 J	-20581482.89	-20581482.86	-20581482.82	0.0261	0.0258
Saturn	-61061-01-02 02:09 J	-20581106.63	-20581106.41	-20581106.17	0.0260	0.0097
Saturn	-61060-01-12 19:40 J	-20580729.91	-20580729.68	-20580729.45	0.0259	0.0073
Saturn	-61059-01-24 12:28 J	-20580353.03	-20580352.98	-20580352.90	0.0260	0.0250
Jupiter	-61054-02-17 14:52 J	-20578503.03	-20578502.88	-20578502.72	0.0508	0.0389
Uranus	-61048-02-07 00:42 J	-20576321.60	-20576321.47	-20576321.32	0.0141	0.0119
Uranus	-61047-02-12 07:11 J	-20575951.46	-20575951.20	-20575950.94	0.0141	0.0002
Saturn	-61047-06-29 12:42 J	-20575814.10	-20575813.97	-20575813.82	0.0302	0.0250
Uranus	-61046-02-16 21:35 J	-20575581.77	-20575581.60	-20575581.39	0.0140	0.0098
Saturn	-61046-07-14 09:35 J	-20575434.34	-20575434.10	-20575433.86	0.0303	0.0027
Jupiter	-61042-02-22 17:30 J	-20574115.00	-20574114.77	-20574114.54	0.0510	0.0041
Jupiter	-61037-08-17 07:40 J	-20572112.26	-20572112.18	-20572112.10	0.0518	0.0482
Saturn	-61033-12-27 14:23 J	-20570519.08	-20570518.90	-20570518.71	0.0260	0.0172
Saturn	-61031-01-07 23:16 J	-20570142.79	-20570142.53	-20570142.27	0.0259	0.0008
Saturn	-61030-01-19 10:18 J	-20569766.25	-20569766.07	-20569765.87	0.0259	0.0167
Jupiter	-61030-02-27 15:35 J	-20569727.03	-20569726.85	-20569726.66	0.0511	0.0342
Jupiter	-61025-08-21 13:40 J	-20567725.15	-20567724.93	-20567724.70	0.0517	0.0121
Mars	-61021-12-27 12:57 J	-20566136.06	-20566135.96	-20566135.86	0.1606	0.1351
Saturn	-61017-07-07 12:57 J	-20564848.19	-20564847.96	-20564847.73	0.0303	0.0099
Saturn	-61016-07-22 10:04 J	-20564468.27	-20564468.08	-20564467.88	0.0303	0.0180
Neptune	-61013-01-04 02:37 J	-20563572.47	-20563572.39	-20563572.26	0.0088	0.0081
Jupiter	-61013-08-26 10:33 J	-20563337.26	-20563337.06	-20563336.85	0.0515	0.0197
Neptune	-61012-01-05 12:28 J	-20563205.08	-20563204.98	-20563204.84	0.0088	0.0079
Neptune	-61011-01-08 06:28 J	-20562837.39	-20562837.23	-20562837.02	0.0088	0.0062
Neptune	-61010-01-10 12:42 J	-20562470.13	-20562469.97	-20562469.75	0.0088	0.0061
Neptune	-61009-01-13 09:35 J	-20562102.33	-20562102.10	-20562101.87	0.0088	0.0043
Neptune	-61008-01-14 15:21 J	-20561735.07	-20561734.86	-20561734.61	0.0088	0.0042
Pluto	-61008-05-28 11:01 J	-20561601.26	-20561601.04	-20561600.78	0.0081	0.0033
Neptune	-61007-01-17 10:18 J	-20561367.31	-20561367.07	-20561366.80	0.0088	0.0025
Neptune	-61006-01-19 18:57 J	-20560999.94	-20560999.71	-20560999.45	0.0088	0.0022

Neptune -61005-01-22 10:33 J -20560632.33 -20560632.06 -20560631.79 0.0088 0.0004

Neptune -61004-01-23 23:59 J -20560264.75 -20560264.50 -20560264.25 0.0088 0.0001

Saturn -61004-12-22 16:47 J -20559931.88 -20559931.80 -20559931.69 0.0261 0.0241

Neptune -61003-01-26 10:47 J -20559897.32 -20559897.05 -20559896.78 0.0088 0.0015

Uranus -61003-08-12 02:09 J -20559699.62 -20559699.41 -20559699.18 0.0138 0.0056

Saturn -61002-01-03 10:33 J -20559555.28 -20559555.06 -20559554.83 0.0260 0.0079

Neptune -61002-01-29 04:18 J -20559529.56 -20559529.32 -20559529.06 0.0088 0.0018

Uranus -61002-08-16 17:01 J -20559330.03 -20559329.79 -20559329.53 0.0138 0.0028

Saturn -61001-01-15 03:35 J -20559178.58 -20559178.35 -20559178.11 0.0259 0.0092

Neptune -61001-01-31 11:30 J -20559162.27 -20559162.02 -20559161.77 0.0088 0.0034

Uranus -61001-08-19 22:33 J -20558960.56 -20558960.56 -20558960.53 0.0139 0.0139

Jupiter -61001-08-30 23:16 J -20558949.59 -20558949.53 -20558949.45 0.0514 0.0492

61ST MILLENNIUM BCE

This is a list of transits of Moon in the 61st millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-61000-02-02	07:11	J	-20558794.42	-20558794.20	-20558793.95	0.0088	0.0038
Neptune	-60999-02-04	13:11	J	-20558427.14	-20558426.95	-20558426.73	0.0088	0.0053
Neptune	-60998-02-07	08:52	J	-20558059.32	-20558059.13	-20558058.91	0.0088	0.0058
Neptune	-60997-02-09	16:47	J	-20557691.93	-20557691.80	-20557691.63	0.0088	0.0071
Neptune	-60996-02-11	09:21	J	-20557324.25	-20557324.11	-20557323.97	0.0088	0.0076
Saturn	-60988-07-01	01:25	J	-20554262.60	-20554262.44	-20554262.27	0.0302	0.0222
Saturn	-60987-07-16	01:11	J	-20553882.68	-20553882.45	-20553882.22	0.0303	0.0057

Saturn -60974-12-29 17:01 J -20548967.99 -20548967.79 -20548967.58 0.0260 0.0154
 Saturn -60972-01-09 02:52 J -20548591.63 -20548591.38 -20548591.13 0.0259 0.0012
 Saturn -60971-01-20 20:09 J -20548214.81 -20548214.66 -20548214.48 0.0259 0.0191
 Jupiter -60971-02-16 23:30 J -20548187.63 -20548187.52 -20548187.39 0.0508 0.0433
 Uranus -60964-02-07 11:16 J -20545640.19 -20545640.03 -20545639.83 0.0141 0.0101
 Uranus -60963-02-12 17:45 J -20545270.02 -20545269.76 -20545269.50 0.0141 0.0005
 Uranus -60962-02-17 08:23 J -20544900.31 -20544900.15 -20544899.98 0.0140 0.0105
 Jupiter -60959-02-21 18:28 J -20543799.97 -20543799.73 -20543799.49 0.0509 0.0087
 Saturn -60958-07-10 01:54 J -20543296.66 -20543296.42 -20543296.17 0.0303 0.0066
 Saturn -60957-07-23 20:09 J -20542916.83 -20542916.66 -20542916.48 0.0303 0.0209
 Jupiter -60947-02-26 08:09 J -20539412.35 -20539412.16 -20539411.96 0.0510 0.0277
 Saturn -60945-12-24 02:37 J -20538380.50 -20538380.39 -20538380.26 0.0261 0.0223
 Saturn -60943-01-04 21:06 J -20538003.85 -20538003.62 -20538003.37 0.0260 0.0059
 Saturn -60942-01-16 08:37 J -20537627.37 -20537627.14 -20537626.90 0.0260 0.0114
 Jupiter -60942-08-22 00:13 J -20537409.70 -20537409.49 -20537409.28 0.0517 0.0164
 Mars -60942-12-30 15:21 J -20537279.05 -20537278.86 -20537278.68 0.1604 0.0513
 Neptune -60931-07-08 00:42 J -20533436.56 -20533436.47 -20533436.33 0.0089 0.0080
 Neptune -60930-07-10 14:37 J -20533068.99 -20533068.89 -20533068.77 0.0089 0.0079
 Jupiter -60930-08-26 10:33 J -20533022.28 -20533022.06 -20533021.82 0.0516 0.0143
 Saturn -60929-07-02 22:18 J -20532710.74 -20532710.57 -20532710.38 0.0302 0.0187
 Neptune -60929-07-11 20:09 J -20532701.83 -20532701.66 -20532701.45 0.0089 0.0061
 Neptune -60928-07-14 12:57 J -20532334.12 -20532333.96 -20532333.76 0.0089 0.0061
 Saturn -60928-07-17 23:16 J -20532330.75 -20532330.53 -20532330.30 0.0303 0.0091
 Neptune -60927-07-16 16:33 J -20531967.01 -20531966.81 -20531966.57 0.0089 0.0043
 Neptune -60926-07-19 09:21 J -20531599.31 -20531599.11 -20531598.86 0.0089 0.0042
 Neptune -60925-07-20 14:37 J -20531232.13 -20531231.89 -20531231.65 0.0089 0.0023
 Neptune -60924-07-23 04:04 J -20530864.57 -20530864.33 -20530864.06 0.0089 0.0022
 Neptune -60923-07-25 12:57 J -20530497.20 -20530496.96 -20530496.71 0.0089 0.0004
 Neptune -60922-07-27 21:49 J -20530129.85 -20530129.59 -20530129.32 0.0089 0.0003
 Neptune -60921-07-29 11:45 J -20529762.25 -20529762.01 -20529761.77 0.0089 0.0015

Neptune -60920-07-31 16:47 J -20529395.05 -20529394.80 -20529394.55 0.0089 0.0016
 Neptune -60919-08-03 09:35 J -20529027.32 -20529027.10 -20529026.86 0.0089 0.0035
 Uranus -60919-08-12 15:49 J -20529018.05 -20529017.84 -20529017.61 0.0138 0.0059
 Neptune -60918-08-05 12:42 J -20528660.18 -20528659.97 -20528659.72 0.0089 0.0036
 Uranus -60918-08-17 05:45 J -20528648.48 -20528648.26 -20528648.01 0.0138 0.0050
 Jupiter -60918-08-30 22:18 J -20528634.67 -20528634.57 -20528634.44 0.0514 0.0437
 Neptune -60917-08-07 05:16 J -20528292.46 -20528292.28 -20528292.05 0.0089 0.0054
 Uranus -60917-08-20 12:13 J -20528279.03 -20528278.99 -20528278.90 0.0139 0.0133
 Neptune -60916-08-09 10:47 J -20527925.23 -20527925.05 -20527924.84 0.0089 0.0055
 Neptune -60915-08-11 23:30 J -20527557.66 -20527557.52 -20527557.35 0.0089 0.0072
 Saturn -60915-12-30 21:49 J -20527416.79 -20527416.59 -20527416.36 0.0260 0.0135
 Neptune -60914-08-14 08:37 J -20527190.25 -20527190.14 -20527189.98 0.0089 0.0074
 Saturn -60913-01-11 14:23 J -20527040.14 -20527039.90 -20527039.66 0.0259 0.0034
 Saturn -60912-01-22 09:49 J -20526663.22 -20526663.09 -20526662.94 0.0260 0.0213
 Saturn -60899-07-11 18:42 J -20521744.96 -20521744.72 -20521744.47 0.0303 0.0031
 Saturn -60898-07-26 14:23 J -20521365.03 -20521364.90 -20521364.75 0.0302 0.0245
 Jupiter -60888-02-15 17:30 J -20517872.81 -20517872.77 -20517872.72 0.0507 0.0497
 Saturn -60886-12-26 16:18 J -20516828.96 -20516828.82 -20516828.66 0.0261 0.0204
 Saturn -60884-01-06 05:30 J -20516452.52 -20516452.27 -20516452.01 0.0260 0.0036
 Saturn -60883-01-17 14:23 J -20516076.10 -20516075.90 -20516075.67 0.0260 0.0138
 Uranus -60880-02-07 18:42 J -20514958.86 -20514958.72 -20514958.56 0.0141 0.0113
 Uranus -60879-02-13 00:57 J -20514588.72 -20514588.46 -20514588.20 0.0141 0.0007
 Uranus -60878-02-17 15:49 J -20514218.99 -20514218.84 -20514218.65 0.0140 0.0106
 Jupiter -60876-02-20 11:30 J -20513485.23 -20513485.02 -20513484.80 0.0509 0.0155
 Saturn -60870-07-05 23:59 J -20511158.70 -20511158.50 -20511158.29 0.0302 0.0152
 Saturn -60869-07-19 22:18 J -20510778.79 -20510778.57 -20510778.35 0.0303 0.0127
 Jupiter -60864-02-25 13:40 J -20509097.14 -20509096.93 -20509096.71 0.0510 0.0232
 Mars -60862-01-02 00:28 J -20508421.67 -20508421.48 -20508421.30 0.1601 0.0648
 Jupiter -60859-08-20 20:09 J -20507094.87 -20507094.66 -20507094.44 0.0517 0.0227
 Saturn -60855-01-01 09:21 J -20505865.32 -20505865.11 -20505864.89 0.0260 0.0114

Saturn -60854-01-13 05:01 J -20505488.53 -20505488.29 -20505488.05 0.0259 0.0057
 Saturn -60853-01-24 19:54 J -20505111.76 -20505111.67 -20505111.56 0.0260 0.0238
 Pluto -60851-11-23 11:59 J -20504078.22 -20504078.00 -20504077.75 0.0064 0.0031
 Pluto -60850-11-24 20:09 J -20503711.81 -20503711.66 -20503711.46 0.0064 0.0046
 Neptune -60849-01-03 04:18 J -20503672.33 -20503672.32 -20503672.26 0.0088 0.0088
 Neptune -60848-01-04 23:30 J -20503304.63 -20503304.52 -20503304.38 0.0088 0.0077
 Neptune -60847-01-07 05:16 J -20502937.42 -20502937.28 -20502937.11 0.0088 0.0070
 Jupiter -60847-08-25 08:09 J -20502707.38 -20502707.16 -20502706.94 0.0516 0.0072
 Neptune -60846-01-10 01:25 J -20502569.63 -20502569.44 -20502569.23 0.0088 0.0058
 Neptune -60845-01-12 07:54 J -20502202.37 -20502202.17 -20502201.95 0.0088 0.0052
 Neptune -60844-01-14 02:09 J -20501834.65 -20501834.41 -20501834.17 0.0088 0.0038
 Neptune -60843-01-16 12:13 J -20501467.22 -20501466.99 -20501466.74 0.0088 0.0032
 Neptune -60842-01-19 02:09 J -20501099.67 -20501099.41 -20501099.14 0.0088 0.0018
 Neptune -60841-01-21 16:47 J -20500732.04 -20500731.80 -20500731.54 0.0088 0.0013
 Saturn -60841-06-28 17:45 J -20500572.85 -20500572.76 -20500572.64 0.0302 0.0270
 Neptune -60840-01-23 01:54 J -20500364.69 -20500364.42 -20500364.15 0.0088 0.0002
 Saturn -60840-07-13 15:35 J -20500193.08 -20500192.85 -20500192.61 0.0303 0.0010
 Neptune -60839-01-25 20:23 J -20499996.90 -20499996.65 -20499996.38 0.0088 0.0008
 Saturn -60839-07-28 14:09 J -20499812.97 -20499812.91 -20499812.82 0.0302 0.0284
 Neptune -60838-01-28 02:52 J -20499629.63 -20499629.38 -20499629.12 0.0088 0.0022
 Neptune -60837-01-30 23:01 J -20499261.78 -20499261.54 -20499261.27 0.0088 0.0027
 Neptune -60836-02-01 05:16 J -20498894.49 -20498894.28 -20498894.04 0.0088 0.0043
 Neptune -60835-02-03 23:59 J -20498526.71 -20498526.50 -20498526.25 0.0088 0.0046
 Uranus -60835-08-13 05:59 J -20498336.47 -20498336.25 -20498336.01 0.0138 0.0042
 Jupiter -60835-08-30 01:40 J -20498319.58 -20498319.43 -20498319.26 0.0515 0.0374
 Neptune -60834-02-06 09:21 J -20498159.26 -20498159.11 -20498158.91 0.0088 0.0063
 Uranus -60834-08-17 18:57 J -20497966.95 -20497966.71 -20497966.46 0.0138 0.0043
 Neptune -60833-02-08 23:59 J -20497791.65 -20497791.50 -20497791.28 0.0088 0.0066
 Neptune -60832-02-10 14:23 J -20497423.98 -20497423.90 -20497423.79 0.0088 0.0082
 Neptune -60831-02-12 23:45 J -20497056.56 -20497056.51 -20497056.41 0.0088 0.0085

Saturn -60827-12-28 02:52 J -20495277.55 -20495277.38 -20495277.19 0.0261 0.0184
 Saturn -60825-01-08 12:13 J -20494901.25 -20494900.99 -20494900.73 0.0260 0.0016
 Saturn -60824-01-19 02:23 J -20494524.59 -20494524.40 -20494524.21 0.0260 0.0162
 Mars -60822-07-06 01:11 J -20493626.66 -20493626.45 -20493626.24 0.1942 0.0428
 Saturn -60811-07-08 00:28 J -20489606.70 -20489606.48 -20489606.24 0.0302 0.0115
 Saturn -60810-07-22 19:25 J -20489226.89 -20489226.69 -20489226.48 0.0302 0.0166
 Saturn -60798-12-23 06:13 J -20484690.24 -20484690.24 -20484690.23 0.0261 0.0261
 Saturn -60796-01-03 00:57 J -20484313.68 -20484313.46 -20484313.23 0.0260 0.0094
 Uranus -60796-02-08 05:59 J -20484277.43 -20484277.25 -20484277.05 0.0141 0.0094
 Saturn -60795-01-14 16:33 J -20483937.04 -20483936.81 -20483936.56 0.0259 0.0080
 Uranus -60795-02-13 11:45 J -20483907.27 -20483907.01 -20483906.75 0.0141 0.0002
 Uranus -60794-02-18 03:06 J -20483537.51 -20483537.37 -20483537.22 0.0140 0.0115
 Jupiter -60793-02-20 15:49 J -20483170.06 -20483169.84 -20483169.61 0.0509 0.0197
 Saturn -60782-07-01 16:18 J -20479020.96 -20479020.82 -20479020.67 0.0302 0.0236
 Jupiter -60781-02-25 05:16 J -20478782.50 -20478782.28 -20478782.06 0.0510 0.0175
 Saturn -60781-07-15 16:33 J -20478641.04 -20478640.81 -20478640.58 0.0303 0.0045
 Jupiter -60776-08-19 17:59 J -20476779.93 -20476779.75 -20476779.57 0.0518 0.0298
 Jupiter -60769-03-01 06:42 J -20474394.28 -20474394.22 -20474394.16 0.0511 0.0490
 Saturn -60768-12-29 09:06 J -20473726.31 -20473726.12 -20473725.92 0.0260 0.0166
 Neptune -60767-07-07 10:47 J -20473536.06 -20473536.05 -20473535.99 0.0089 0.0088
 Saturn -60766-01-09 21:21 J -20473349.85 -20473349.61 -20473349.36 0.0260 0.0006
 Neptune -60766-07-09 15:35 J -20473168.94 -20473168.85 -20473168.72 0.0089 0.0080
 Saturn -60765-01-21 16:47 J -20472972.95 -20472972.80 -20472972.62 0.0260 0.0186
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 Neptune -60764-07-13 12:28 J -20472434.14 -20472433.98 -20472433.77 0.0089 0.0061
 Jupiter -60764-08-24 11:45 J -20472392.24 -20472392.01 -20472391.77 0.0517 0.0009
 Neptune -60763-07-16 05:16 J -20472066.48 -20472066.28 -20472066.05 0.0089 0.0050
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 Pluto -60761-05-30 15:35 J -20471382.01 -20471381.85 -20471381.64 0.0081 0.0056
 Neptune -60761-07-19 23:59 J -20471331.74 -20471331.50 -20471331.25 0.0089 0.0030

Neptune -60760-07-22 10:18 J -20470964.30 -20470964.07 -20470963.82 0.0089 0.0021
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 Uranus -60752-08-09 13:11 J -20468024.01 -20468023.95 -20468023.86 0.0137 0.0130
 Jupiter -60752-08-28 18:42 J -20468004.89 -20468004.72 -20468004.54 0.0515 0.0316
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 Uranus -60751-08-13 21:06 J -20467654.84 -20467654.62 -20467654.38 0.0138 0.0043
 Neptune -60750-08-13 13:25 J -20467290.04 -20467289.94 -20467289.80 0.0089 0.0078
 Uranus -60750-08-18 09:06 J -20467285.33 -20467285.12 -20467284.88 0.0138 0.0065
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 Saturn -60737-01-05 13:25 J -20462762.18 -20462761.94 -20462761.69 0.0260 0.0074
 Mars -60737-12-29 04:04 J -20462403.48 -20462403.33 -20462403.19 0.1610 0.0974
 Saturn -60736-01-15 23:01 J -20462385.77 -20462385.54 -20462385.29 0.0259 0.0101
 Saturn -60723-07-03 15:49 J -20457469.00 -20457468.84 -20457468.66 0.0302 0.0205
 Saturn -60722-07-18 16:18 J -20457089.05 -20457088.82 -20457088.59 0.0303 0.0078
 Uranus -60712-02-08 17:01 J -20453595.95 -20453595.79 -20453595.61 0.0141 0.0103
 Uranus -60711-02-13 22:04 J -20453225.84 -20453225.58 -20453225.32 0.0141 0.0018
 Uranus -60710-02-18 13:54 J -20452856.04 -20452855.92 -20452855.75 0.0140 0.0117
 Jupiter -60710-02-19 07:11 J -20452855.41 -20452855.20 -20452855.00 0.0508 0.0252
 Saturn -60709-12-30 16:47 J -20452174.99 -20452174.80 -20452174.59 0.0260 0.0148
 Saturn -60707-01-11 10:18 J -20451798.31 -20451798.07 -20451797.82 0.0260 0.0025

Saturn -60706-01-23 04:18 J -20451421.46 -20451421.32 -20451421.16 0.0260 0.0205
 Jupiter -60698-02-24 10:04 J -20448467.31 -20448467.08 -20448466.85 0.0509 0.0119
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 Jupiter -60693-08-18 21:06 J -20446464.79 -20446464.62 -20446464.44 0.0518 0.0352
 Saturn -60692-07-26 06:13 J -20446123.38 -20446123.24 -20446123.07 0.0302 0.0231
 Jupiter -60686-02-28 22:47 J -20444079.67 -20444079.55 -20444079.42 0.0511 0.0437
 Neptune -60684-01-03 22:33 J -20443404.66 -20443404.56 -20443404.41 0.0088 0.0078
 Neptune -60683-01-06 18:13 J -20443036.84 -20443036.74 -20443036.58 0.0088 0.0077
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 Neptune -60681-01-11 18:13 J -20442301.93 -20442301.74 -20442301.51 0.0088 0.0056
 Jupiter -60681-08-23 07:11 J -20442077.42 -20442077.20 -20442076.97 0.0517 0.0051
 Neptune -60680-01-13 05:30 J -20441934.49 -20441934.27 -20441934.03 0.0088 0.0038
 Saturn -60680-12-26 08:23 J -20441587.27 -20441587.15 -20441587.01 0.0260 0.0220
 Neptune -60679-01-15 17:16 J -20441567.01 -20441566.78 -20441566.52 0.0088 0.0037
 Saturn -60678-01-06 18:28 J -20441210.98 -20441210.73 -20441210.48 0.0259 0.0054
 Neptune -60678-01-18 09:49 J -20441199.34 -20441199.09 -20441198.84 0.0088 0.0019
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 Neptune -60677-01-20 17:59 J -20440832.01 -20440831.75 -20440831.48 0.0088 0.0017
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 Neptune -60670-02-05 15:49 J -20438259.00 -20438258.84 -20438258.62 0.0088 0.0063
 Neptune -60669-02-08 07:54 J -20437891.34 -20437891.17 -20437891.00 0.0088 0.0066
 Jupiter -60669-08-28 02:52 J -20437689.57 -20437689.38 -20437689.18 0.0515 0.0261
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 Uranus -60668-08-10 03:06 J -20437342.46 -20437342.37 -20437342.27 0.0137 0.0127
 Neptune -60667-02-12 11:45 J -20437156.07 -20437156.01 -20437155.92 0.0088 0.0085

Uranus -60667-08-14 11:30 J -20436973.25 -20436973.02 -20436972.78 0.0138 0.0026
 Uranus -60666-08-18 22:33 J -20436603.79 -20436603.56 -20436603.33 0.0138 0.0060
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 Saturn -60663-07-20 06:57 J -20435537.44 -20435537.21 -20435536.98 0.0303 0.0107
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 Saturn -60634-07-13 23:16 J -20424951.76 -20424951.53 -20424951.29 0.0303 0.0023
 Saturn -60633-07-27 23:30 J -20424571.64 -20424571.52 -20424571.40 0.0302 0.0258
 Uranus -60628-02-09 07:54 J -20422914.36 -20422914.17 -20422913.95 0.0141 0.0081
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 Jupiter -60627-02-18 14:23 J -20422540.09 -20422539.90 -20422539.71 0.0508 0.0295
 Uranus -60626-02-19 04:18 J -20422174.40 -20422174.32 -20422174.21 0.0140 0.0129
 Saturn -60621-12-27 13:11 J -20420036.11 -20420035.95 -20420035.78 0.0260 0.0200
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 Saturn -60618-01-19 12:28 J -20419283.17 -20419282.98 -20419282.77 0.0259 0.0142
 Jupiter -60615-02-23 04:47 J -20418152.54 -20418152.30 -20418152.05 0.0509 0.0075
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 Saturn -60605-07-06 17:01 J -20414366.01 -20414365.79 -20414365.57 0.0303 0.0148
 Saturn -60604-07-21 12:28 J -20413986.21 -20413985.98 -20413985.76 0.0303 0.0132
 Pluto -60604-11-25 08:09 J -20413859.42 -20413859.16 -20413858.90 0.0064 0.0001
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 Neptune -60602-07-09 06:28 J -20413268.34 -20413268.23 -20413268.11 0.0089 0.0078
 Neptune -60601-07-10 09:49 J -20412901.18 -20412901.09 -20412900.94 0.0089 0.0078
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 Neptune -60598-07-17 21:21 J -20411798.84 -20411798.61 -20411798.37 0.0089 0.0039
 Jupiter -60598-08-23 16:47 J -20411762.03 -20411761.80 -20411761.58 0.0517 0.0107

Neptune -60597-07-19 08:09 J -20411431.36 -20411431.16 -20411430.92 0.0089 0.0038
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 Neptune -60592-07-30 07:25 J -20409594.41 -20409594.19 -20409593.93 0.0089 0.0023
 Neptune -60591-08-01 23:01 J -20409226.78 -20409226.54 -20409226.28 0.0089 0.0023
 Saturn -60590-01-03 11:16 J -20409072.25 -20409072.03 -20409071.81 0.0260 0.0112
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 Saturn -60588-01-25 07:54 J -20408319.25 -20408319.17 -20408319.09 0.0260 0.0245
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 Neptune -60587-08-10 10:04 J -20407757.23 -20407757.08 -20407756.87 0.0089 0.0064
 Neptune -60586-08-13 02:52 J -20407389.48 -20407389.38 -20407389.28 0.0089 0.0082
 Jupiter -60586-08-27 23:30 J -20407374.73 -20407374.52 -20407374.31 0.0516 0.0217
 Neptune -60585-08-14 05:59 J -20407022.32 -20407022.25 -20407022.13 0.0089 0.0082
 Uranus -60584-08-10 14:52 J -20406660.99 -20406660.88 -20406660.73 0.0137 0.0118
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 Uranus -60582-08-19 10:47 J -20405922.24 -20405922.05 -20405921.82 0.0138 0.0080
 Mars -60578-01-02 22:18 J -20404689.73 -20404689.57 -20404689.41 0.1605 0.0890
 Saturn -60576-06-30 08:37 J -20403780.22 -20403780.14 -20403780.05 0.0301 0.0277
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 Saturn -60574-07-30 09:06 J -20403020.19 -20403020.12 -20403020.01 0.0302 0.0280
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 Saturn -60559-01-20 19:40 J -20397731.86 -20397731.68 -20397731.47 0.0259 0.0161
 Saturn -60546-07-08 16:18 J -20392815.04 -20392814.82 -20392814.59 0.0303 0.0130
 Saturn -60545-07-22 14:23 J -20392435.10 -20392434.90 -20392434.69 0.0303 0.0153
 Uranus -60544-02-09 20:23 J -20392232.84 -20392232.65 -20392232.45 0.0141 0.0088

Jupiter -60544-02-17 14:09 J -20392225.08 -20392224.91 -20392224.71 0.0508 0.0327
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 Uranus -60542-02-19 16:33 J -20391492.87 -20391492.81 -20391492.70 0.0140 0.0131
 Mars -60538-07-04 14:52 J -20389897.03 -20389896.88 -20389896.74 0.1932 0.1215
 Jupiter -60532-02-22 16:33 J -20387837.04 -20387836.81 -20387836.58 0.0509 0.0041
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 Saturn -60530-01-15 19:25 J -20387144.93 -20387144.69 -20387144.45 0.0259 0.0079
 Jupiter -60527-08-18 07:54 J -20385834.28 -20385834.17 -20385834.06 0.0519 0.0449
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 Saturn -60517-07-01 14:09 J -20382229.02 -20382228.91 -20382228.79 0.0302 0.0260
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 Pluto -60515-05-31 07:54 J -20381530.38 -20381530.17 -20381529.95 0.0081 0.0047
 Saturn -60515-07-31 08:37 J -20381469.16 -20381469.14 -20381469.10 0.0303 0.0300
 Jupiter -60515-08-22 17:30 J -20381446.99 -20381446.77 -20381446.55 0.0517 0.0138
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 Saturn -60501-01-11 06:57 J -20376557.46 -20376557.21 -20376556.97 0.0259 0.0004
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 Uranus -60500-08-11 01:11 J -20375979.58 -20375979.45 -20375979.30 0.0137 0.0114
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 Saturn -60486-07-24 16:47 J -20370883.99 -20370883.80 -20370883.61 0.0303 0.0174
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 Saturn -60472-01-05 06:42 J -20365970.46 -20365970.22 -20365969.97 0.0259 0.0084
 Saturn -60471-01-16 18:28 J -20365593.95 -20365593.73 -20365593.50 0.0259 0.0095
 Jupiter -60461-02-18 04:04 J -20361909.49 -20361909.33 -20361909.16 0.0507 0.0351
 Uranus -60460-02-10 07:54 J -20361551.37 -20361551.17 -20361550.94 0.0141 0.0069
 Uranus -60459-02-15 09:49 J -20361181.34 -20361181.09 -20361180.82 0.0141 0.0028
 Mars -60459-07-08 09:49 J -20361038.22 -20361038.09 -20361037.95 0.1939 0.1495
 Saturn -60458-07-03 10:18 J -20360678.20 -20360678.07 -20360677.91 0.0302 0.0245
 Saturn -60457-07-17 06:57 J -20360298.46 -20360298.21 -20360297.96 0.0303 0.0039
 Mars -60453-12-30 05:59 J -20358671.43 -20358671.25 -20358671.07 0.1615 0.0695
 Jupiter -60449-02-22 17:59 J -20357522.00 -20357521.75 -20357521.50 0.0509 0.0004
 Jupiter -60444-08-17 14:09 J -20355518.99 -20355518.91 -20355518.80 0.0519 0.0469
 Saturn -60444-12-31 16:33 J -20355382.99 -20355382.81 -20355382.61 0.0260 0.0161
 Saturn -60442-01-12 06:28 J -20355006.48 -20355006.23 -20355005.98 0.0259 0.0013
 Saturn -60441-01-23 13:11 J -20354630.10 -20354629.95 -20354629.78 0.0259 0.0200
 Neptune -60438-07-08 08:23 J -20353368.20 -20353368.15 -20353368.06 0.0089 0.0085
 Jupiter -60437-02-27 15:35 J -20353134.04 -20353133.85 -20353133.67 0.0510 0.0308
 Neptune -60437-07-09 23:45 J -20353000.61 -20353000.51 -20353000.36 0.0089 0.0078
 Neptune -60436-07-12 07:11 J -20352633.35 -20352633.20 -20352633.02 0.0089 0.0066
 Neptune -60435-07-14 18:13 J -20352265.93 -20352265.74 -20352265.53 0.0089 0.0058

Neptune -60434-07-17 06:57 J -20351898.41 -20351898.21 -20351897.99 0.0089 0.0045
 Neptune -60433-07-18 13:25 J -20351531.16 -20351530.94 -20351530.69 0.0089 0.0037
 Neptune -60432-07-21 05:45 J -20351163.49 -20351163.26 -20351163.01 0.0089 0.0025
 Jupiter -60432-08-22 11:16 J -20351131.24 -20351131.03 -20351130.82 0.0517 0.0167
 Neptune -60431-07-23 09:21 J -20350796.35 -20350796.11 -20350795.85 0.0089 0.0017
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 Neptune -60429-07-27 07:11 J -20350061.45 -20350061.20 -20350060.95 0.0089 0.0004
 Saturn -60428-07-10 14:52 J -20349713.09 -20349712.88 -20349712.65 0.0303 0.0097
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 Neptune -60421-08-13 22:04 J -20347121.61 -20347121.58 -20347121.51 0.0089 0.0087
 Jupiter -60420-08-26 23:01 J -20346743.76 -20346743.54 -20346743.31 0.0516 0.0177
 Uranus -60416-08-11 10:33 J -20345298.21 -20345298.06 -20345297.90 0.0137 0.0109
 Uranus -60415-08-15 22:33 J -20344928.80 -20344928.56 -20344928.32 0.0138 0.0018
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 Saturn -60412-01-17 19:40 J -20344042.89 -20344042.68 -20344042.46 0.0259 0.0113
 Saturn -60399-07-04 00:28 J -20339127.63 -20339127.48 -20339127.32 0.0302 0.0231
 Saturn -60398-07-18 22:18 J -20338747.80 -20338747.57 -20338747.32 0.0303 0.0054
 Saturn -60384-01-01 15:21 J -20333832.07 -20333831.86 -20333831.65 0.0260 0.0148
 Saturn -60383-01-12 23:01 J -20333455.80 -20333455.54 -20333455.28 0.0259 0.0029
 Saturn -60382-01-24 08:52 J -20333079.25 -20333079.13 -20333078.98 0.0259 0.0218
 Jupiter -60378-02-17 07:25 J -20331594.35 -20331594.19 -20331594.03 0.0508 0.0382

Uranus -60376-02-10 14:09 J -20330870.10 -20330869.91 -20330869.69 0.0141 0.0081
 Uranus -60375-02-15 14:52 J -20330500.13 -20330499.88 -20330499.62 0.0141 0.0041
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 Mars -60373-01-02 13:11 J -20329814.14 -20329813.95 -20329813.76 0.1612 0.0263
 Saturn -60369-07-11 11:01 J -20328162.27 -20328162.04 -20328161.81 0.0303 0.0082
 Saturn -60368-07-26 07:54 J -20327782.36 -20327782.17 -20327781.99 0.0303 0.0205
 Jupiter -60366-02-22 05:16 J -20327206.50 -20327206.28 -20327206.05 0.0509 0.0029
 Jupiter -60361-08-17 06:42 J -20325203.26 -20325203.22 -20325203.17 0.0519 0.0507
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 Neptune -60354-01-07 19:54 J -20322868.80 -20322868.67 -20322868.52 0.0088 0.0074
 Saturn -60354-01-08 02:52 J -20322868.61 -20322868.38 -20322868.14 0.0259 0.0057 *
 Jupiter -60354-02-27 09:21 J -20322818.31 -20322818.11 -20322817.91 0.0510 0.0282
 Neptune -60353-01-10 05:01 J -20322501.48 -20322501.29 -20322501.06 0.0088 0.0055
 Saturn -60353-01-19 18:13 J -20322491.95 -20322491.74 -20322491.52 0.0259 0.0128
 Neptune -60352-01-11 23:30 J -20322133.72 -20322133.52 -20322133.31 0.0088 0.0053
 Neptune -60351-01-14 05:45 J -20321766.48 -20321766.26 -20321765.99 0.0088 0.0034
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 Neptune -60349-01-19 08:23 J -20321031.40 -20321031.15 -20321030.89 0.0088 0.0013
 Jupiter -60349-08-21 18:42 J -20320815.94 -20320815.72 -20320815.50 0.0518 0.0198
 Neptune -60348-01-21 03:35 J -20320663.62 -20320663.35 -20320663.08 0.0088 0.0011
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 Neptune -60341-02-07 00:28 J -20318090.62 -20318090.48 -20318090.32 0.0088 0.0072

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 Saturn -60340-07-04 17:01 J -20317576.96 -20317576.79 -20317576.63 0.0302 0.0216
 Saturn -60339-07-19 18:13 J -20317196.97 -20317196.74 -20317196.52 0.0303 0.0071
 Jupiter -60337-08-26 11:16 J -20316428.24 -20316428.03 -20316427.82 0.0516 0.0171
 Uranus -60332-08-11 19:40 J -20314616.82 -20314616.68 -20314616.49 0.0137 0.0105
 Uranus -60331-08-16 08:52 J -20314247.37 -20314247.13 -20314246.88 0.0138 0.0007
 Uranus -60330-08-20 14:37 J -20313878.08 -20313877.89 -20313877.67 0.0138 0.0082
 Saturn -60325-01-03 06:42 J -20312281.43 -20312281.22 -20312280.99 0.0260 0.0135
 Saturn -60324-01-13 16:18 J -20311905.06 -20311904.82 -20311904.57 0.0259 0.0045
 Saturn -60323-01-25 09:21 J -20311528.20 -20311528.11 -20311528.01 0.0259 0.0236
 Saturn -60310-07-13 01:25 J -20306611.68 -20306611.44 -20306611.19 0.0303 0.0063
 Saturn -60309-07-26 21:06 J -20306231.77 -20306231.62 -20306231.44 0.0303 0.0224
 Saturn -60297-12-28 08:52 J -20301694.25 -20301694.13 -20301693.99 0.0260 0.0218
 Saturn -60295-01-09 01:54 J -20301317.66 -20301317.42 -20301317.17 0.0259 0.0042
 Jupiter -60295-02-16 19:25 J -20301278.83 -20301278.69 -20301278.54 0.0507 0.0392
 Mars -60294-01-04 12:13 J -20300957.09 -20300956.99 -20300956.87 0.1609 0.1262
 Saturn -60294-01-20 11:01 J -20300941.24 -20300941.04 -20300940.82 0.0259 0.0147
 Uranus -60292-02-10 21:49 J -20300188.81 -20300188.59 -20300188.37 0.0141 0.0067
 Uranus -60291-02-15 20:09 J -20299818.91 -20299818.66 -20299818.39 0.0141 0.0029
 Jupiter -60283-02-21 20:52 J -20296890.87 -20296890.63 -20296890.39 0.0508 0.0055
 Saturn -60281-07-05 16:18 J -20296026.00 -20296025.82 -20296025.64 0.0302 0.0196
 Saturn -60280-07-20 16:47 J -20295646.03 -20295645.80 -20295645.57 0.0303 0.0090
 Neptune -60273-07-09 07:54 J -20293100.27 -20293100.17 -20293100.03 0.0089 0.0077
 Neptune -60272-07-11 17:45 J -20292732.88 -20292732.76 -20292732.59 0.0089 0.0074
 Jupiter -60271-02-26 05:30 J -20292503.48 -20292503.27 -20292503.06 0.0510 0.0237
 Neptune -60271-07-14 06:42 J -20292365.39 -20292365.22 -20292365.01 0.0089 0.0056
 Neptune -60270-07-16 12:42 J -20291998.18 -20291997.97 -20291997.76 0.0089 0.0053
 Neptune -60269-07-18 05:01 J -20291630.51 -20291630.29 -20291630.05 0.0089 0.0035
 Pluto -60268-06-02 06:28 J -20291311.49 -20291311.23 -20291310.96 0.0081 0.0004
 Neptune -60268-07-20 08:37 J -20291263.37 -20291263.14 -20291262.90 0.0089 0.0033

Neptune -60267-07-23 01:40 J -20290895.68 -20290895.43 -20290895.17 0.0089 0.0014
 Saturn -60266-01-04 00:28 J -20290730.70 -20290730.48 -20290730.26 0.0260 0.0121
 Neptune -60266-07-25 06:42 J -20290528.46 -20290528.22 -20290527.97 0.0089 0.0012
 Jupiter -60266-08-22 09:35 J -20290500.30 -20290500.10 -20290499.90 0.0518 0.0215
 Saturn -60265-01-15 16:33 J -20290354.04 -20290353.81 -20290353.57 0.0259 0.0065
 Neptune -60265-07-26 21:06 J -20290160.88 -20290160.62 -20290160.36 0.0089 0.0008
 Saturn -60264-01-26 09:35 J -20289977.13 -20289977.10 -20289977.04 0.0259 0.0254
 Neptune -60264-07-29 05:59 J -20289793.49 -20289793.25 -20289793.00 0.0089 0.0010
 Neptune -60263-07-31 14:52 J -20289426.11 -20289425.88 -20289425.62 0.0089 0.0029
 Neptune -60262-08-03 04:18 J -20289058.53 -20289058.32 -20289058.07 0.0089 0.0031
 Neptune -60261-08-04 08:37 J -20288691.33 -20288691.14 -20288690.90 0.0089 0.0050
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 Neptune -60258-08-11 21:06 J -20287588.75 -20287588.62 -20287588.45 0.0089 0.0072
 Jupiter -60254-08-27 05:16 J -20286112.50 -20286112.28 -20286112.06 0.0516 0.0158
 Saturn -60251-07-13 17:59 J -20285060.99 -20285060.75 -20285060.51 0.0303 0.0042
 Saturn -60250-07-28 16:33 J -20284680.93 -20284680.81 -20284680.66 0.0303 0.0245
 Uranus -60248-08-12 06:42 J -20283935.39 -20283935.22 -20283935.05 0.0137 0.0101
 Uranus -60247-08-16 20:52 J -20283565.87 -20283565.63 -20283565.39 0.0138 0.0007
 Uranus -60246-08-21 02:09 J -20283196.59 -20283196.41 -20283196.23 0.0138 0.0096
 Saturn -60238-12-30 08:23 J -20280143.29 -20280143.15 -20280142.99 0.0261 0.0205
 Saturn -60236-01-09 19:11 J -20279766.96 -20279766.70 -20279766.45 0.0259 0.0023
 Saturn -60235-01-21 04:18 J -20279390.51 -20279390.32 -20279390.12 0.0259 0.0167
 Saturn -60222-07-07 16:18 J -20274475.01 -20274474.82 -20274474.61 0.0302 0.0174
 Saturn -60221-07-21 12:57 J -20274095.18 -20274094.96 -20274094.72 0.0303 0.0114
 Jupiter -60212-02-16 03:21 J -20270963.48 -20270963.36 -20270963.23 0.0507 0.0431
 Uranus -60208-02-11 04:47 J -20269507.50 -20269507.30 -20269507.08 0.0141 0.0079
 Saturn -60207-01-05 00:42 J -20269179.69 -20269179.47 -20269179.25 0.0260 0.0104
 Uranus -60207-02-16 02:23 J -20269137.65 -20269137.40 -20269137.14 0.0141 0.0044
 Saturn -60206-01-16 18:28 J -20268802.96 -20268802.73 -20268802.49 0.0259 0.0085

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 Jupiter -60200-02-20 17:01 J -20266576.02 -20266575.79 -20266575.56 0.0508 0.0102
 Saturn -60192-07-14 21:06 J -20263509.85 -20263509.62 -20263509.38 0.0302 0.0017
 Neptune -60191-01-04 15:35 J -20263335.92 -20263335.85 -20263335.74 0.0089 0.0083
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 Neptune -60187-01-13 21:35 J -20261865.81 -20261865.60 -20261865.35 0.0088 0.0042
 Neptune -60186-01-16 04:18 J -20261498.55 -20261498.32 -20261498.07 0.0088 0.0031
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 Saturn -60179-12-31 04:33 J -20258592.47 -20258592.31 -20258592.12 0.0261 0.0190
 Neptune -60178-02-03 19:25 J -20258557.87 -20258557.69 -20258557.48 0.0088 0.0059
 Saturn -60177-01-11 13:54 J -20258216.18 -20258215.92 -20258215.67 0.0260 0.0005
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 Saturn -60176-01-22 05:45 J -20257839.42 -20257839.26 -20257839.09 0.0259 0.0189
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 Neptune -60175-02-10 05:30 J -20257455.29 -20257455.27 -20257455.18 0.0088 0.0087
 Mars -60175-07-07 12:57 J -20257308.13 -20257307.96 -20257307.78 0.1930 0.0562
 Jupiter -60171-08-26 05:30 J -20255797.49 -20255797.27 -20255797.05 0.0517 0.0119
 Mars -60169-12-31 00:42 J -20254939.64 -20254939.47 -20254939.29 0.1620 0.0573
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Saturn -60163-07-08 14:52 J -20252924.09 -20252923.88 -20252923.65 0.0302 0.0148
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 Saturn -60117-01-24 12:13 J -20236288.13 -20236287.99 -20236287.85 0.0259 0.0212
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 Pluto -60111-11-28 00:28 J -20233788.68 -20233788.48 -20233788.22 0.0064 0.0033
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 Neptune -60106-07-16 05:45 J -20232097.45 -20232097.26 -20232097.05 0.0089 0.0055
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 Neptune -60104-07-20 01:54 J -20231362.64 -20231362.42 -20231362.16 0.0089 0.0033
 Neptune -60103-07-22 07:40 J -20230995.41 -20230995.18 -20230994.93 0.0089 0.0019
 Saturn -60103-07-24 16:47 J -20230992.99 -20230992.80 -20230992.60 0.0302 0.0171
 Neptune -60102-07-24 21:06 J -20230627.88 -20230627.62 -20230627.36 0.0089 0.0011

Neptune -60101-07-26 06:42 J -20230260.47 -20230260.22 -20230259.98 0.0089 0.0003
 Neptune -60100-07-28 14:52 J -20229893.14 -20229892.88 -20229892.62 0.0089 0.0010
 Jupiter -60100-08-20 22:04 J -20229869.77 -20229869.58 -20229869.40 0.0519 0.0298
 Neptune -60099-07-31 05:30 J -20229525.50 -20229525.27 -20229525.02 0.0089 0.0024
 Neptune -60098-08-02 10:18 J -20229158.31 -20229158.07 -20229157.83 0.0089 0.0032
 Neptune -60097-08-04 03:06 J -20228790.57 -20228790.37 -20228790.14 0.0089 0.0046
 Neptune -60096-08-06 06:28 J -20228423.41 -20228423.23 -20228423.02 0.0089 0.0054
 Neptune -60095-08-08 22:47 J -20228055.71 -20228055.55 -20228055.37 0.0089 0.0066
 Neptune -60094-08-11 04:18 J -20227688.42 -20227688.32 -20227688.16 0.0089 0.0076
 Neptune -60093-08-12 16:04 J -20227320.85 -20227320.83 -20227320.74 0.0089 0.0088
 Saturn -60091-12-27 14:23 J -20226453.94 -20226453.90 -20226453.83 0.0262 0.0254
 Mars -60089-01-03 09:21 J -20226082.30 -20226082.11 -20226081.92 0.1616 0.0558
 Saturn -60089-01-08 05:59 J -20226077.49 -20226077.25 -20226077.00 0.0261 0.0069
 Saturn -60088-01-18 14:52 J -20225701.09 -20225700.88 -20225700.65 0.0260 0.0130
 Jupiter -60088-08-25 22:18 J -20225481.79 -20225481.57 -20225481.35 0.0518 0.0096
 Uranus -60080-08-13 03:49 J -20222572.50 -20222572.34 -20222572.13 0.0137 0.0094
 Uranus -60079-08-17 19:54 J -20222202.91 -20222202.67 -20222202.42 0.0138 0.0004
 Uranus -60078-08-21 23:30 J -20221833.66 -20221833.52 -20221833.34 0.0138 0.0107
 Jupiter -60076-08-30 05:30 J -20221094.37 -20221094.27 -20221094.16 0.0516 0.0459
 Saturn -60075-07-03 21:21 J -20220786.73 -20220786.61 -20220786.47 0.0300 0.0249
 Saturn -60074-07-18 17:01 J -20220407.03 -20220406.79 -20220406.54 0.0302 0.0040
 Saturn -60060-01-02 04:33 J -20215490.50 -20215490.31 -20215490.11 0.0261 0.0157
 Saturn -60059-01-14 00:42 J -20215113.71 -20215113.47 -20215113.23 0.0260 0.0038
 Saturn -60058-01-25 16:18 J -20214736.93 -20214736.82 -20214736.71 0.0260 0.0233
 Jupiter -60046-02-15 16:04 J -20210332.84 -20210332.83 -20210332.81 0.0506 0.0504
 Saturn -60045-07-11 09:06 J -20209821.34 -20209821.12 -20209820.89 0.0301 0.0089
 Saturn -60044-07-26 08:52 J -20209441.29 -20209441.13 -20209440.95 0.0302 0.0204
 Uranus -60040-02-12 02:23 J -20208144.61 -20208144.40 -20208144.17 0.0141 0.0069
 Uranus -60039-02-16 21:06 J -20207774.85 -20207774.62 -20207774.36 0.0141 0.0054
 Jupiter -60034-02-19 23:45 J -20205945.73 -20205945.51 -20205945.28 0.0507 0.0200

Saturn -60032-12-28 19:54 J -20204902.77 -20204902.67 -20204902.55 0.0262 0.0235

Saturn -60030-01-09 06:57 J -20204526.46 -20204526.21 -20204525.95 0.0261 0.0047

Saturn -60029-01-20 20:37 J -20204149.83 -20204149.64 -20204149.44 0.0260 0.0151

Neptune -60026-01-06 16:04 J -20203067.98 -20203067.83 -20203067.68 0.0089 0.0072

Neptune -60025-01-08 21:21 J -20202700.74 -20202700.61 -20202700.43 0.0089 0.0071

Neptune -60024-01-10 17:16 J -20202332.98 -20202332.78 -20202332.54 0.0088 0.0051

Neptune -60023-01-13 00:28 J -20201965.68 -20201965.48 -20201965.25 0.0088 0.0049

Neptune -60022-01-15 17:59 J -20201597.99 -20201597.75 -20201597.48 0.0088 0.0028

Jupiter -60022-02-24 23:59 J -20201557.73 -20201557.50 -20201557.28 0.0508 0.0107

Neptune -60021-01-18 05:16 J -20201230.52 -20201230.28 -20201230.03 0.0088 0.0026

Pluto -60021-06-04 01:11 J -20201092.66 -20201092.45 -20201092.20 0.0081 0.0039

Neptune -60020-01-19 18:28 J -20200863.00 -20200862.73 -20200862.46 0.0088 0.0006

Neptune -60019-01-22 09:35 J -20200495.35 -20200495.10 -20200494.84 0.0088 0.0005

Neptune -60018-01-24 17:59 J -20200128.01 -20200127.75 -20200127.48 0.0088 0.0016

Neptune -60017-01-27 12:57 J -20199760.21 -20199759.96 -20199759.70 0.0088 0.0018

Jupiter -60017-08-20 08:52 J -20199554.29 -20199554.13 -20199553.95 0.0519 0.0344

Neptune -60016-01-28 18:42 J -20199392.94 -20199392.72 -20199392.47 0.0088 0.0039

Saturn -60016-07-05 13:11 J -20199235.11 -20199234.95 -20199234.77 0.0300 0.0216

Neptune -60015-01-31 14:52 J -20199025.10 -20199024.88 -20199024.63 0.0088 0.0041

Saturn -60015-07-20 06:13 J -20198855.48 -20198855.24 -20198855.00 0.0302 0.0074

Neptune -60014-02-02 21:49 J -20198657.77 -20198657.59 -20198657.40 0.0088 0.0060

Neptune -60013-02-05 15:35 J -20198290.02 -20198289.85 -20198289.63 0.0088 0.0062

Neptune -60012-02-07 02:09 J -20197922.48 -20197922.41 -20197922.29 0.0088 0.0081

Neptune -60011-02-09 16:33 J -20197554.88 -20197554.81 -20197554.72 0.0088 0.0084

Jupiter -60010-03-01 21:35 J -20197169.67 -20197169.60 -20197169.52 0.0510 0.0483

Jupiter -60005-08-24 17:01 J -20195167.02 -20195166.79 -20195166.56 0.0518 0.0042

Saturn -60001-01-04 16:04 J -20193939.03 -20193938.83 -20193938.62 0.0261 0.0135

60TH MILLENNIUM BCE

This is a list of transits of Moon in the 60th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-60000-01-15 09:21	J	-20193562.35	-20193562.11	-20193561.86	0.0260	0.0059	
Saturn	-59999-01-26 19:25	J	-20193185.72	-20193185.69	-20193185.63	0.0260	0.0256	
Uranus	-59996-08-13 13:25	J	-20191891.12	-20191890.94	-20191890.73	0.0137	0.0085	
Uranus	-59995-08-18 05:45	J	-20191521.51	-20191521.26	-20191521.02	0.0138	0.0011	
Uranus	-59994-08-22 09:06	J	-20191152.29	-20191152.12	-20191151.95	0.0138	0.0103	
Jupiter	-59993-08-29 09:21	J	-20190779.25	-20190779.11	-20190778.97	0.0516	0.0400	
Saturn	-59986-07-14 07:11	J	-20188269.43	-20188269.20	-20188268.97	0.0302	0.0053	
Saturn	-59985-07-28 05:30	J	-20187889.41	-20187889.27	-20187889.12	0.0302	0.0237	
Saturn	-59973-12-29 23:30	J	-20183351.65	-20183351.52	-20183351.36	0.0262	0.0214	
Saturn	-59971-01-10 13:11	J	-20182975.20	-20182974.95	-20182974.70	0.0261	0.0024	
Saturn	-59970-01-22 08:37	J	-20182598.31	-20182598.14	-20182597.95	0.0260	0.0174	
Mars	-59964-12-30 13:54	J	-20180064.02	-20180063.92	-20180063.82	0.1627	0.1362	
Saturn	-59957-07-07 05:16	J	-20177683.48	-20177683.28	-20177683.08	0.0300	0.0179	
Uranus	-59956-02-12 13:25	J	-20177463.16	-20177462.94	-20177462.69	0.0141	0.0052	
Saturn	-59956-07-21 23:45	J	-20177303.74	-20177303.51	-20177303.28	0.0302	0.0109	
Uranus	-59955-02-17 06:57	J	-20177093.45	-20177093.21	-20177092.95	0.0141	0.0045	
Jupiter	-59951-02-19 05:30	J	-20175630.46	-20175630.27	-20175630.07	0.0507	0.0261	
Neptune	-59944-07-10 13:40	J	-20172932.05	-20172931.93	-20172931.77	0.0089	0.0074	
Neptune	-59943-07-13 06:57	J	-20172564.34	-20172564.21	-20172564.04	0.0089	0.0071	
Saturn	-59942-01-06 03:49	J	-20172387.56	-20172387.34	-20172387.11	0.0261	0.0112	
Neptune	-59942-07-15 10:33	J	-20172197.25	-20172197.06	-20172196.84	0.0089	0.0052	
Saturn	-59941-01-17 15:35	J	-20172011.10	-20172010.85	-20172010.61	0.0260	0.0084	

Neptune -59941-07-17 02:37 J -20171829.59 -20171829.39 -20171829.15 0.0089 0.0049
 Neptune -59940-07-19 08:52 J -20171462.36 -20171462.13 -20171461.89 0.0089 0.0030
 Jupiter -59939-02-24 00:42 J -20171242.72 -20171242.47 -20171242.23 0.0508 0.0057
 Neptune -59939-07-21 21:35 J -20171094.85 -20171094.60 -20171094.35 0.0089 0.0027
 Neptune -59938-07-24 08:23 J -20170727.39 -20170727.15 -20170726.90 0.0089 0.0009
 Neptune -59937-07-25 16:04 J -20170360.09 -20170359.83 -20170359.57 0.0089 0.0005
 Neptune -59936-07-28 07:11 J -20169992.44 -20169992.20 -20169991.95 0.0089 0.0014
 Neptune -59935-07-30 11:16 J -20169625.28 -20169625.03 -20169624.78 0.0089 0.0017
 Neptune -59934-08-02 04:04 J -20169257.54 -20169257.33 -20169257.08 0.0089 0.0037
 Jupiter -59934-08-19 23:45 J -20169239.65 -20169239.51 -20169239.37 0.0519 0.0412
 Neptune -59933-08-03 07:54 J -20168890.38 -20168890.17 -20168889.93 0.0089 0.0039
 Neptune -59932-08-05 23:16 J -20168522.70 -20168522.53 -20168522.31 0.0089 0.0058
 Neptune -59931-08-08 05:45 J -20168155.41 -20168155.26 -20168155.06 0.0089 0.0061
 Neptune -59930-08-10 17:01 J -20167787.88 -20167787.79 -20167787.65 0.0089 0.0080
 Neptune -59929-08-12 04:33 J -20167420.36 -20167420.31 -20167420.19 0.0089 0.0084
 Saturn -59928-07-01 10:18 J -20167097.07 -20167097.07 -20167097.05 0.0300 0.0299
 Jupiter -59927-02-28 17:16 J -20166854.90 -20166854.78 -20166854.65 0.0509 0.0430
 Saturn -59927-07-16 07:25 J -20166717.43 -20166717.19 -20166716.95 0.0302 0.0016
 Saturn -59926-07-31 02:23 J -20166337.51 -20166337.40 -20166337.29 0.0302 0.0271
 Jupiter -59922-08-24 19:54 J -20164851.90 -20164851.67 -20164851.45 0.0518 0.0020
 Saturn -59913-01-01 07:54 J -20161800.33 -20161800.17 -20161800.00 0.0262 0.0193
 Saturn -59912-01-12 03:06 J -20161423.61 -20161423.37 -20161423.12 0.0261 0.0006
 Uranus -59912-08-13 21:35 J -20161209.77 -20161209.60 -20161209.39 0.0137 0.0088
 Saturn -59911-01-23 22:18 J -20161046.72 -20161046.57 -20161046.40 0.0260 0.0198
 Uranus -59911-08-18 14:23 J -20160840.15 -20160839.90 -20160839.65 0.0138 0.0011
 Uranus -59910-08-22 17:16 J -20160470.91 -20160470.78 -20160470.62 0.0138 0.0113
 Jupiter -59910-08-29 09:35 J -20160464.28 -20160464.10 -20160463.92 0.0517 0.0341
 Saturn -59898-07-10 02:37 J -20156131.60 -20156131.39 -20156131.18 0.0301 0.0141
 Saturn -59897-07-23 23:59 J -20155751.70 -20155751.50 -20155751.29 0.0302 0.0148
 Mars -59891-07-07 06:13 J -20153577.44 -20153577.24 -20153577.04 0.1921 0.0186

Mars -59884-01-01 12:28 J -20151207.16 -20151206.98 -20151206.81 0.1624 0.0185
 Saturn -59883-01-07 11:45 J -20150836.25 -20150836.01 -20150835.76 0.0261 0.0087
 Saturn -59882-01-18 23:01 J -20150459.77 -20150459.54 -20150459.31 0.0260 0.0110
 Uranus -59872-02-12 20:52 J -20146781.84 -20146781.63 -20146781.38 0.0141 0.0061
 Uranus -59871-02-17 14:09 J -20146412.14 -20146411.91 -20146411.66 0.0141 0.0062
 Saturn -59869-07-03 08:52 J -20145545.24 -20145545.13 -20145545.01 0.0300 0.0264
 Jupiter -59868-02-18 03:06 J -20145315.55 -20145315.37 -20145315.17 0.0506 0.0324
 Saturn -59868-07-18 02:52 J -20145165.63 -20145165.38 -20145165.13 0.0302 0.0023
 Pluto -59864-11-29 15:35 J -20143570.11 -20143569.85 -20143569.59 0.0064 0.0011
 Neptune -59862-01-05 18:13 J -20143167.82 -20143167.74 -20143167.59 0.0089 0.0080
 Neptune -59861-01-08 13:54 J -20142800.05 -20142799.92 -20142799.73 0.0089 0.0071
 Neptune -59860-01-09 21:35 J -20142432.76 -20142432.60 -20142432.38 0.0089 0.0058
 Neptune -59859-01-12 13:54 J -20142065.13 -20142064.92 -20142064.67 0.0088 0.0048
 Neptune -59858-01-15 01:40 J -20141697.64 -20141697.43 -20141697.18 0.0088 0.0036
 Neptune -59857-01-17 13:25 J -20141330.19 -20141329.94 -20141329.67 0.0088 0.0026
 Neptune -59856-01-19 06:13 J -20140962.49 -20140962.24 -20140961.98 0.0088 0.0013
 Jupiter -59856-02-22 18:13 J -20140927.97 -20140927.74 -20140927.51 0.0507 0.0014
 Neptune -59855-01-21 14:09 J -20140595.17 -20140594.91 -20140594.64 0.0088 0.0002
 Saturn -59854-01-02 21:35 J -20140248.77 -20140248.60 -20140248.40 0.0262 0.0170
 Neptune -59854-01-24 09:49 J -20140227.34 -20140227.09 -20140226.82 0.0088 0.0011
 Saturn -59853-01-14 18:13 J -20139871.98 -20139871.74 -20139871.49 0.0260 0.0028
 Neptune -59853-01-26 15:49 J -20139860.08 -20139859.84 -20139859.58 0.0088 0.0022
 Saturn -59852-01-25 07:40 J -20139495.30 -20139495.18 -20139495.03 0.0260 0.0223
 Neptune -59852-01-28 11:59 J -20139492.24 -20139492.00 -20139491.74 0.0088 0.0032
 Neptune -59851-01-30 19:25 J -20139124.91 -20139124.69 -20139124.46 0.0088 0.0044
 Jupiter -59851-08-19 03:35 J -20138924.44 -20138924.35 -20138924.26 0.0520 0.0473
 Neptune -59850-02-02 12:13 J -20138757.18 -20138756.99 -20138756.75 0.0088 0.0054
 Neptune -59849-02-04 23:30 J -20138389.68 -20138389.52 -20138389.35 0.0088 0.0067
 Neptune -59848-02-06 11:16 J -20138022.14 -20138022.03 -20138021.86 0.0088 0.0077
 Jupiter -59844-02-27 17:59 J -20136539.91 -20136539.75 -20136539.57 0.0509 0.0363

Saturn -59839-07-12 03:49 J -20134579.56 -20134579.34 -20134579.12 0.0301 0.0105
 Jupiter -59839-08-23 17:16 J -20134537.02 -20134536.78 -20134536.55 0.0519 0.0073
 Saturn -59838-07-27 02:37 J -20134199.57 -20134199.39 -20134199.20 0.0302 0.0186
 Uranus -59828-08-14 05:45 J -20130528.45 -20130528.26 -20130528.04 0.0137 0.0079
 Uranus -59827-08-18 22:18 J -20130158.82 -20130158.57 -20130158.32 0.0137 0.0015
 Jupiter -59827-08-28 07:11 J -20130149.38 -20130149.20 -20130149.01 0.0517 0.0283
 Uranus -59826-08-23 00:42 J -20129789.61 -20129789.47 -20129789.31 0.0138 0.0109
 Saturn -59826-12-29 09:35 J -20129661.16 -20129661.10 -20129661.02 0.0262 0.0251
 Saturn -59824-01-08 19:54 J -20129284.91 -20129284.67 -20129284.42 0.0261 0.0062
 Saturn -59823-01-20 12:28 J -20128908.18 -20128907.98 -20128907.77 0.0260 0.0136
 Saturn -59810-07-06 02:37 J -20123993.54 -20123993.39 -20123993.22 0.0301 0.0229
 Saturn -59809-07-19 19:54 J -20123613.91 -20123613.67 -20123613.43 0.0302 0.0062
 Mars -59805-01-04 09:35 J -20122350.25 -20122350.10 -20122349.95 0.1621 0.0889
 Saturn -59795-01-04 12:28 J -20118697.17 -20118696.98 -20118696.77 0.0261 0.0148
 Saturn -59794-01-16 03:49 J -20118320.59 -20118320.34 -20118320.09 0.0260 0.0051
 Saturn -59793-01-27 13:54 J -20117943.99 -20117943.92 -20117943.84 0.0260 0.0247
 Uranus -59788-02-13 02:37 J -20116100.63 -20116100.39 -20116100.15 0.0141 0.0050
 Uranus -59787-02-17 18:42 J -20115730.96 -20115730.72 -20115730.47 0.0141 0.0048
 Jupiter -59785-02-17 23:30 J -20115000.66 -20115000.52 -20115000.37 0.0506 0.0391
 Neptune -59780-07-10 07:54 J -20113031.25 -20113031.17 -20113031.02 0.0089 0.0079
 Saturn -59780-07-14 02:37 J -20113027.62 -20113027.39 -20113027.16 0.0301 0.0069
 Neptune -59779-07-12 12:13 J -20112664.11 -20112663.99 -20112663.82 0.0089 0.0073
 Saturn -59779-07-28 23:45 J -20112647.67 -20112647.51 -20112647.34 0.0302 0.0222
 Neptune -59778-07-15 04:33 J -20112296.49 -20112296.31 -20112296.09 0.0089 0.0057
 Neptune -59777-07-16 11:30 J -20111929.21 -20111929.02 -20111928.80 0.0089 0.0051
 Neptune -59776-07-18 23:30 J -20111561.75 -20111561.52 -20111561.27 0.0089 0.0035
 Neptune -59775-07-21 10:33 J -20111194.28 -20111194.06 -20111193.82 0.0089 0.0028
 Pluto -59774-06-06 15:06 J -20110873.98 -20110873.87 -20110873.73 0.0080 0.0070
 Neptune -59774-07-23 17:16 J -20110827.03 -20110826.78 -20110826.51 0.0089 0.0012
 Jupiter -59773-02-22 20:52 J -20110612.87 -20110612.63 -20110612.38 0.0507 0.0071

Neptune -59773-07-25 09:06 J -20110459.37 -20110459.12 -20110458.87 0.0089 0.0005
 Neptune -59772-07-27 12:57 J -20110092.21 -20110091.96 -20110091.70 0.0089 0.0010
 Neptune -59771-07-30 06:13 J -20109724.49 -20109724.24 -20109723.98 0.0089 0.0017
 Neptune -59770-08-01 09:49 J -20109357.31 -20109357.09 -20109356.84 0.0089 0.0032
 Neptune -59769-08-03 01:25 J -20108989.66 -20108989.44 -20108989.19 0.0089 0.0040
 Neptune -59768-08-05 09:06 J -20108622.30 -20108622.12 -20108621.91 0.0089 0.0055
 Neptune -59767-08-07 19:54 J -20108254.85 -20108254.67 -20108254.47 0.0089 0.0062
 Saturn -59767-12-30 16:04 J -20108109.93 -20108109.83 -20108109.69 0.0262 0.0230
 Neptune -59766-08-10 07:25 J -20107887.28 -20107887.19 -20107887.04 0.0089 0.0077
 Saturn -59765-01-11 07:11 J -20107733.44 -20107733.20 -20107732.96 0.0260 0.0039
 Neptune -59765-08-11 13:40 J -20107520.01 -20107519.93 -20107519.83 0.0089 0.0083
 Saturn -59764-01-22 03:06 J -20107356.55 -20107356.37 -20107356.17 0.0260 0.0162
 Jupiter -59761-02-27 11:16 J -20106225.21 -20106225.03 -20106224.84 0.0509 0.0312
 Jupiter -59756-08-22 15:49 J -20104222.05 -20104221.84 -20104221.62 0.0519 0.0136
 Saturn -59751-07-07 15:35 J -20102442.02 -20102441.85 -20102441.65 0.0301 0.0197
 Saturn -59750-07-22 12:28 J -20102062.21 -20102061.98 -20102061.76 0.0302 0.0095
 Uranus -59744-08-14 14:23 J -20099847.08 -20099846.90 -20099846.69 0.0137 0.0084
 Jupiter -59744-08-27 10:04 J -20099834.29 -20099834.08 -20099833.86 0.0518 0.0214
 Uranus -59743-08-19 06:57 J -20099477.46 -20099477.21 -20099476.96 0.0137 0.0018
 Uranus -59742-08-23 09:35 J -20099108.21 -20099108.10 -20099107.96 0.0138 0.0118
 Saturn -59736-01-05 22:47 J -20097145.76 -20097145.55 -20097145.32 0.0261 0.0125
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 Uranus -59324-08-16 12:57 J -19946440.17 -19946439.96 -19946439.73 0.0137 0.0060
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 Uranus -59323-08-21 00:42 J -19946070.71 -19946070.47 -19946070.21 0.0138 0.0030
 Saturn -59322-01-26 05:45 J -19945912.41 -19945912.26 -19945912.12 0.0259 0.0205
 Uranus -59322-08-25 07:25 J -19945701.25 -19945701.19 -19945701.11 0.0138 0.0132
 Jupiter -59317-08-29 19:54 J -19943869.83 -19943869.67 -19943869.51 0.0518 0.0364
 Mars -59316-01-03 11:30 J -19943743.22 -19943743.02 -19943742.82 0.1635 0.0207
 Saturn -59309-07-09 05:30 J -19940999.47 -19940999.27 -19940999.06 0.0300 0.0166
 Saturn -59308-07-24 01:40 J -19940619.64 -19940619.43 -19940619.21 0.0302 0.0122
 Saturn -59294-01-09 22:33 J -19935701.80 -19935701.56 -19935701.32 0.0261 0.0075
 Saturn -59293-01-21 08:09 J -19935325.38 -19935325.16 -19935324.92 0.0260 0.0123
 Neptune -59287-07-11 02:52 J -19932962.43 -19932962.38 -19932962.28 0.0089 0.0085
 Neptune -59286-07-13 16:33 J -19932594.94 -19932594.81 -19932594.62 0.0089 0.0068
 Neptune -59285-07-14 22:18 J -19932227.73 -19932227.57 -19932227.36 0.0089 0.0063
 Uranus -59284-02-15 03:49 J -19932012.60 -19932012.34 -19932012.08 0.0141 0.0034
 Neptune -59284-07-17 15:35 J -19931860.06 -19931859.85 -19931859.62 0.0089 0.0044
 Uranus -59283-02-19 21:06 J -19931642.82 -19931642.62 -19931642.38 0.0141 0.0070
 Neptune -59283-07-19 19:25 J -19931492.91 -19931492.69 -19931492.45 0.0089 0.0039
 Neptune -59282-07-22 13:11 J -19931125.20 -19931124.95 -19931124.70 0.0089 0.0019
 Neptune -59281-07-23 18:13 J -19930757.98 -19930757.74 -19930757.49 0.0089 0.0015
 Pluto -59280-06-08 23:45 J -19930437.67 -19930437.51 -19930437.32 0.0080 0.0057
 Saturn -59280-07-03 00:57 J -19930413.48 -19930413.46 -19930413.43 0.0298 0.0296

Neptune -59280-07-26 08:09 J -19930390.42 -19930390.16 -19930389.89 0.0089 0.0005
 Saturn -59279-07-17 18:13 J -19930033.99 -19930033.74 -19930033.49 0.0301 0.0015
 Neptune -59279-07-28 17:01 J -19930023.03 -19930022.79 -19930022.54 0.0089 0.0009
 Neptune -59278-07-31 01:40 J -19929655.67 -19929655.43 -19929655.17 0.0089 0.0028
 Saturn -59278-08-01 10:33 J -19929654.15 -19929654.06 -19929653.94 0.0302 0.0272
 Neptune -59277-08-01 15:35 J -19929288.07 -19929287.85 -19929287.61 0.0089 0.0033
 Neptune -59276-08-03 20:09 J -19928920.84 -19928920.66 -19928920.43 0.0089 0.0053
 Jupiter -59275-02-19 10:47 J -19928721.24 -19928721.05 -19928720.85 0.0506 0.0257
 Neptune -59275-08-06 13:11 J -19928553.12 -19928552.95 -19928552.73 0.0089 0.0057
 Neptune -59274-08-08 16:47 J -19928185.91 -19928185.80 -19928185.66 0.0089 0.0076
 Neptune -59273-08-10 09:21 J -19927818.21 -19927818.11 -19927817.98 0.0089 0.0079
 Saturn -59265-01-04 15:06 J -19925115.05 -19925114.87 -19925114.67 0.0262 0.0168
 Saturn -59264-01-15 11:45 J -19924738.25 -19924738.01 -19924737.77 0.0260 0.0032
 Saturn -59263-01-27 05:01 J -19924361.41 -19924361.29 -19924361.15 0.0260 0.0221
 Jupiter -59263-02-24 12:28 J -19924333.21 -19924332.98 -19924332.74 0.0507 0.0138
 Jupiter -59258-08-20 23:01 J -19922329.72 -19922329.54 -19922329.36 0.0521 0.0341
 Jupiter -59251-03-01 01:11 J -19919945.54 -19919945.45 -19919945.34 0.0508 0.0462
 Saturn -59250-07-11 06:42 J -19919448.42 -19919448.22 -19919448.01 0.0300 0.0146
 Saturn -59249-07-25 05:30 J -19919068.47 -19919068.27 -19919068.06 0.0302 0.0141
 Jupiter -59246-08-25 15:06 J -19917942.09 -19917941.87 -19917941.65 0.0519 0.0017
 Mars -59244-07-08 12:42 J -19917259.16 -19917258.97 -19917258.78 0.1907 0.0261
 Uranus -59240-08-16 20:23 J -19915758.85 -19915758.65 -19915758.44 0.0137 0.0070
 Uranus -59239-08-21 07:11 J -19915389.44 -19915389.20 -19915388.95 0.0137 0.0038
 Uranus -59238-08-25 14:52 J -19915019.92 -19915019.88 -19915019.79 0.0138 0.0133
 Mars -59237-01-07 00:13 J -19914885.54 -19914885.49 -19914885.45 0.1631 0.1589
 Saturn -59237-12-30 03:21 J -19914527.40 -19914527.36 -19914527.29 0.0264 0.0256
 Saturn -59235-01-10 16:47 J -19914151.05 -19914150.80 -19914150.54 0.0262 0.0053
 Saturn -59234-01-22 05:01 J -19913774.48 -19913774.29 -19913774.07 0.0260 0.0143
 Jupiter -59234-08-30 14:37 J -19913554.06 -19913553.89 -19913553.72 0.0518 0.0349
 Saturn -59221-07-04 03:21 J -19908862.45 -19908862.36 -19908862.25 0.0298 0.0272

Saturn -59220-07-18 17:45 J -19908483.01 -19908482.76 -19908482.51 0.0301 0.0010
 Saturn -59219-08-02 11:16 J -19908103.08 -19908103.03 -19908102.98 0.0302 0.0294
 Saturn -59206-01-05 19:11 J -19903563.89 -19903563.70 -19903563.50 0.0262 0.0148
 Neptune -59205-01-06 03:06 J -19903198.38 -19903198.37 -19903198.32 0.0089 0.0088
 Saturn -59205-01-17 14:52 J -19903187.12 -19903186.88 -19903186.63 0.0261 0.0053
 Neptune -59204-01-07 21:49 J -19902830.71 -19902830.59 -19902830.41 0.0089 0.0072
 Saturn -59204-01-28 02:23 J -19902810.50 -19902810.40 -19902810.29 0.0260 0.0236
 Neptune -59203-01-10 03:49 J -19902463.49 -19902463.34 -19902463.14 0.0089 0.0065
 Neptune -59202-01-12 23:45 J -19902095.72 -19902095.51 -19902095.27 0.0089 0.0048
 Neptune -59201-01-15 06:28 J -19901728.45 -19901728.23 -19901727.99 0.0089 0.0039
 Neptune -59200-01-17 00:13 J -19901360.74 -19901360.49 -19901360.22 0.0089 0.0023
 Uranus -59200-02-15 07:40 J -19901331.44 -19901331.18 -19901330.92 0.0141 0.0037
 Neptune -59199-01-19 10:47 J -19900993.30 -19900993.05 -19900992.80 0.0089 0.0014
 Uranus -59199-02-20 02:23 J -19900961.60 -19900961.40 -19900961.18 0.0141 0.0080
 Neptune -59198-01-22 00:13 J -19900625.76 -19900625.49 -19900625.22 0.0088 0.0001
 Neptune -59197-01-24 14:52 J -19900258.12 -19900257.88 -19900257.62 0.0088 0.0011
 Neptune -59196-01-25 23:30 J -19899890.77 -19899890.52 -19899890.25 0.0088 0.0026
 Neptune -59195-01-28 18:13 J -19899522.96 -19899522.74 -19899522.49 0.0088 0.0036
 Neptune -59194-01-31 00:13 J -19899155.68 -19899155.49 -19899155.25 0.0088 0.0050
 Neptune -59193-02-02 20:52 J -19898787.81 -19898787.63 -19898787.43 0.0088 0.0061
 Neptune -59192-02-04 02:52 J -19898420.49 -19898420.38 -19898420.20 0.0088 0.0074
 Jupiter -59192-02-18 22:33 J -19898405.76 -19898405.56 -19898405.35 0.0505 0.0281
 Neptune -59191-02-06 21:35 J -19898052.66 -19898052.60 -19898052.50 0.0088 0.0085
 Saturn -59191-07-12 16:04 J -19897897.03 -19897896.83 -19897896.60 0.0300 0.0121
 Mars -59191-12-31 14:23 J -19897724.92 -19897724.90 -19897724.88 0.1648 0.1636
 Saturn -59190-07-27 12:42 J -19897517.16 -19897516.97 -19897516.76 0.0302 0.0168
 Jupiter -59180-02-23 06:13 J -19894018.47 -19894018.24 -19894018.00 0.0506 0.0081
 Saturn -59177-01-01 00:42 J -19892976.57 -19892976.47 -19892976.34 0.0264 0.0236
 Saturn -59176-01-11 15:06 J -19892600.11 -19892599.87 -19892599.62 0.0262 0.0031
 Saturn -59175-01-23 10:18 J -19892223.26 -19892223.07 -19892222.88 0.0261 0.0161

Jupiter -59175-08-20 06:28 J -19892014.38 -19892014.23 -19892014.08 0.0521 0.0386
 Jupiter -59168-02-28 09:21 J -19889630.24 -19889630.11 -19889629.96 0.0508 0.0403
 Jupiter -59163-08-25 04:18 J -19887626.55 -19887626.32 -19887626.09 0.0520 0.0062
 Saturn -59162-07-06 07:25 J -19887311.32 -19887311.19 -19887311.04 0.0298 0.0247
 Saturn -59161-07-20 00:13 J -19886931.73 -19886931.49 -19886931.25 0.0301 0.0036
 Uranus -59156-08-17 05:16 J -19885077.50 -19885077.28 -19885077.06 0.0137 0.0056
 Uranus -59155-08-21 14:23 J -19884708.14 -19884707.90 -19884707.64 0.0137 0.0032
 Uranus -59154-08-25 23:16 J -19884338.54 -19884338.53 -19884338.49 0.0138 0.0137
 Jupiter -59151-08-29 12:13 J -19883239.17 -19883238.99 -19883238.80 0.0518 0.0302
 Saturn -59147-01-07 00:42 J -19882012.68 -19882012.47 -19882012.24 0.0262 0.0126
 Saturn -59146-01-18 14:52 J -19881636.13 -19881635.88 -19881635.63 0.0261 0.0073
 Saturn -59145-01-30 02:23 J -19881259.43 -19881259.40 -19881259.35 0.0260 0.0256
 Saturn -59132-07-14 05:16 J -19876345.52 -19876345.28 -19876345.05 0.0300 0.0090
 Saturn -59131-07-28 21:35 J -19875965.77 -19875965.60 -19875965.40 0.0302 0.0196
 Pluto -59123-12-04 07:25 J -19872915.41 -19872915.19 -19872914.95 0.0063 0.0028
 Neptune -59122-07-13 00:57 J -19872694.61 -19872694.46 -19872694.30 0.0089 0.0071
 Pluto -59122-12-05 11:59 J -19872549.15 -19872549.00 -19872548.78 0.0064 0.0045
 Neptune -59121-07-14 17:30 J -19872326.92 -19872326.77 -19872326.58 0.0089 0.0066
 Neptune -59120-07-16 21:21 J -19871959.81 -19871959.61 -19871959.39 0.0089 0.0047
 Neptune -59119-07-19 14:37 J -19871592.12 -19871591.89 -19871591.66 0.0089 0.0041
 Saturn -59118-01-02 01:40 J -19871425.57 -19871425.43 -19871425.28 0.0264 0.0216
 Neptune -59118-07-21 19:40 J -19871224.91 -19871224.68 -19871224.44 0.0089 0.0024
 Saturn -59117-01-13 22:18 J -19871048.81 -19871048.57 -19871048.33 0.0262 0.0011
 Neptune -59117-07-23 09:06 J -19870857.37 -19870857.12 -19870856.85 0.0089 0.0018
 Saturn -59116-01-24 18:57 J -19870671.88 -19870671.71 -19870671.53 0.0261 0.0182
 Uranus -59116-02-15 12:57 J -19870650.21 -19870649.96 -19870649.69 0.0142 0.0036
 Neptune -59116-07-25 19:11 J -19870489.94 -19870489.70 -19870489.45 0.0089 0.0001
 Uranus -59115-02-20 08:52 J -19870280.33 -19870280.13 -19870279.90 0.0141 0.0072
 Neptune -59115-07-28 04:04 J -19870122.58 -19870122.33 -19870122.06 0.0089 0.0008
 Neptune -59114-07-30 18:28 J -19869754.96 -19869754.73 -19869754.48 0.0089 0.0026

Neptune -59113-07-31 22:47 J -19869387.78 -19869387.55 -19869387.30 0.0089 0.0032
 Neptune -59112-08-03 15:49 J -19869020.04 -19869019.84 -19869019.62 0.0089 0.0049
 Mars -59111-01-02 16:47 J -19868867.98 -19868867.80 -19868867.63 0.1644 0.0516
 Neptune -59111-08-05 18:57 J -19868652.88 -19868652.71 -19868652.49 0.0089 0.0056
 Neptune -59110-08-08 11:01 J -19868285.16 -19868285.04 -19868284.86 0.0089 0.0073
 Jupiter -59109-02-18 15:21 J -19868091.03 -19868090.86 -19868090.69 0.0505 0.0337
 Neptune -59109-08-09 17:01 J -19867917.88 -19867917.79 -19867917.68 0.0089 0.0080
 Saturn -59103-07-07 21:49 J -19865759.74 -19865759.59 -19865759.42 0.0298 0.0219
 Saturn -59102-07-22 17:30 J -19865380.00 -19865379.77 -19865379.54 0.0301 0.0066
 Jupiter -59097-02-23 17:59 J -19863702.99 -19863702.75 -19863702.52 0.0506 0.0039
 Jupiter -59092-08-19 14:09 J -19861699.02 -19861698.91 -19861698.79 0.0521 0.0448
 Saturn -59088-01-08 04:33 J -19860461.54 -19860461.31 -19860461.07 0.0262 0.0106
 Saturn -59087-01-19 16:33 J -19860085.04 -19860084.81 -19860084.57 0.0261 0.0094
 Jupiter -59085-02-28 07:40 J -19859315.35 -19859315.18 -19859315.00 0.0508 0.0357
 Jupiter -59080-08-23 21:06 J -19857311.84 -19857311.62 -19857311.39 0.0520 0.0131
 Saturn -59073-07-15 17:01 J -19854794.03 -19854793.79 -19854793.54 0.0300 0.0061
 Saturn -59072-07-30 08:37 J -19854414.29 -19854414.14 -19854413.97 0.0301 0.0227
 Uranus -59072-08-17 14:23 J -19854396.10 -19854395.90 -19854395.68 0.0137 0.0066
 Uranus -59071-08-21 23:01 J -19854026.78 -19854026.54 -19854026.29 0.0137 0.0044
 Uranus -59070-08-26 09:21 J -19853657.12 -19853657.11 -19853657.08 0.0138 0.0137
 Jupiter -59068-08-28 20:52 J -19852923.83 -19852923.63 -19852923.44 0.0519 0.0248
 Saturn -59059-01-03 09:49 J -19849874.25 -19849874.09 -19849873.93 0.0264 0.0196
 Saturn -59058-01-15 09:21 J -19849497.36 -19849497.11 -19849496.87 0.0262 0.0012
 Saturn -59057-01-27 01:11 J -19849120.60 -19849120.45 -19849120.28 0.0261 0.0201
 Saturn -59044-07-09 20:37 J -19844207.82 -19844207.64 -19844207.46 0.0298 0.0188
 Saturn -59043-07-24 16:18 J -19843828.04 -19843827.82 -19843827.59 0.0301 0.0100
 Neptune -59041-01-05 19:25 J -19843297.71 -19843297.69 -19843297.60 0.0089 0.0087
 Neptune -59040-01-07 01:25 J -19842930.52 -19842930.44 -19842930.32 0.0089 0.0082
 Neptune -59039-01-09 21:06 J -19842562.79 -19842562.62 -19842562.41 0.0089 0.0062
 Neptune -59038-01-12 04:47 J -19842195.49 -19842195.30 -19842195.10 0.0089 0.0057

Neptune -59037-01-14 21:35 J -19841827.83 -19841827.60 -19841827.34 0.0089 0.0037
 Neptune -59036-01-16 08:23 J -19841460.37 -19841460.15 -19841459.90 0.0089 0.0033
 Neptune -59035-01-18 20:23 J -19841092.91 -19841092.65 -19841092.37 0.0089 0.0013
 Neptune -59034-01-21 12:13 J -19840725.24 -19840724.99 -19840724.74 0.0088 0.0007
 Neptune -59033-01-23 20:23 J -19840357.91 -19840357.65 -19840357.39 0.0088 0.0014
 Pluto -59033-06-09 19:11 J -19840219.92 -19840219.70 -19840219.45 0.0081 0.0030
 Mars -59032-01-04 13:40 J -19840011.10 -19840010.93 -19840010.76 0.1641 0.0483
 Neptune -59032-01-25 15:49 J -19839990.09 -19839989.84 -19839989.58 0.0088 0.0018
 Uranus -59032-02-15 19:40 J -19839968.93 -19839968.68 -19839968.41 0.0142 0.0033
 Neptune -59031-01-27 21:35 J -19839622.83 -19839622.60 -19839622.36 0.0088 0.0039
 Uranus -59031-02-20 16:47 J -19839598.99 -19839598.80 -19839598.58 0.0141 0.0082
 Neptune -59030-01-30 17:59 J -19839254.99 -19839254.75 -19839254.52 0.0088 0.0042
 Saturn -59029-01-10 08:52 J -19838910.37 -19838910.13 -19838909.88 0.0262 0.0082
 Neptune -59029-02-02 00:28 J -19838887.63 -19838887.48 -19838887.28 0.0088 0.0064
 Saturn -59028-01-21 02:23 J -19838533.61 -19838533.40 -19838533.18 0.0261 0.0116
 Neptune -59028-02-03 18:42 J -19838519.89 -19838519.72 -19838519.54 0.0088 0.0067
 Neptune -59027-02-06 05:16 J -19838152.28 -19838152.28 -19838152.27 0.0088 0.0088
 Jupiter -59026-02-18 00:42 J -19837775.61 -19837775.47 -19837775.30 0.0505 0.0377
 Jupiter -59014-02-22 12:13 J -19833388.23 -19833387.99 -19833387.75 0.0506 0.0018
 Saturn -59014-07-18 09:49 J -19833242.34 -19833242.09 -19833241.85 0.0300 0.0027
 Saturn -59013-08-01 03:49 J -19832862.44 -19832862.34 -19832862.21 0.0301 0.0262
 Jupiter -59002-02-27 08:23 J -19829000.33 -19829000.15 -19828999.96 0.0507 0.0291

59TH MILLENNIUM BCE

This is a list of transits of Moon in the 59th millennium BCE.

	FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
		TRANSIT							
		TIME							
Saturn	-59000-01-04	23:30 J	-19828322.70	-19828322.52	-19828322.33	0.0263	0.0171		
Saturn	-58999-01-16	18:28 J	-19827945.98	-19827945.73	-19827945.47	0.0262	0.0033		
Saturn	-58998-01-28	05:59 J	-19827569.38	-19827569.25	-19827569.11	0.0261	0.0220		
Jupiter	-58997-08-23	04:47 J	-19826996.51	-19826996.30	-19826996.09	0.0521	0.0194		
Uranus	-58988-08-18	00:28 J	-19823714.70	-19823714.48	-19823714.25	0.0137	0.0050		
Uranus	-58987-08-22	07:25 J	-19823345.43	-19823345.19	-19823344.93	0.0137	0.0038		
Saturn	-58985-07-11	20:23 J	-19822655.86	-19822655.65	-19822655.44	0.0299	0.0151		
Jupiter	-58985-08-27	14:23 J	-19822609.12	-19822608.90	-19822608.68	0.0519	0.0187		
Saturn	-58984-07-26	13:11 J	-19822276.16	-19822275.95	-19822275.72	0.0301	0.0135		
Saturn	-58972-12-31	00:42 J	-19817735.50	-19817735.47	-19817735.42	0.0264	0.0261		
Saturn	-58970-01-11	18:28 J	-19817358.97	-19817358.73	-19817358.49	0.0262	0.0058		
Saturn	-58969-01-23	16:47 J	-19816982.00	-19816981.80	-19816981.59	0.0261	0.0137		
Mars	-58960-07-08	10:47 J	-19813528.21	-19813528.05	-19813527.89	0.1897	0.0885		
Neptune	-58959-07-10	01:40 J	-19813161.45	-19813161.43	-19813161.39	0.0089	0.0088		
Neptune	-58958-07-12	18:42 J	-19812793.79	-19812793.72	-19812793.60	0.0089	0.0082		
Neptune	-58957-07-13	22:18 J	-19812426.71	-19812426.57	-19812426.36	0.0089	0.0064		
Saturn	-58956-07-05	14:37 J	-19812069.99	-19812069.89	-19812069.79	0.0298	0.0269		
Neptune	-58956-07-16	15:35 J	-19812059.03	-19812058.85	-19812058.64	0.0089	0.0058		
Neptune	-58955-07-18	21:35 J	-19811691.80	-19811691.60	-19811691.36	0.0089	0.0040		
Saturn	-58955-07-20	08:09 J	-19811690.39	-19811690.16	-19811689.92	0.0300	0.0012		
Neptune	-58954-07-21	10:47 J	-19811324.28	-19811324.05	-19811323.79	0.0089	0.0034		
Saturn	-58954-08-04	05:30 J	-19811310.31	-19811310.27	-19811310.24	0.0302	0.0297		
Neptune	-58953-07-22	21:06 J	-19810956.85	-19810956.62	-19810956.37	0.0089	0.0015		
Neptune	-58952-07-25	05:01 J	-19810589.55	-19810589.29	-19810589.02	0.0089	0.0008		
Neptune	-58951-07-27	20:09 J	-19810221.91	-19810221.66	-19810221.41	0.0089	0.0011		
Neptune	-58950-07-30	00:13 J	-19809854.73	-19809854.49	-19809854.22	0.0089	0.0017		
Uranus	-58949-02-12	06:42 J	-19809657.26	-19809657.22	-19809657.15	0.0142	0.0138		

Neptune -58949-07-31 17:30 J -19809486.98 -19809486.77 -19809486.52 0.0089 0.0036
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Saturn -58528-01-16 14:09 J -19655913.16 -19655912.91 -19655912.66 0.0261 0.0009
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 Neptune -58132-07-22 11:30 J -19511087.26 -19511087.02 -19511086.76 0.0089 0.0030
 Pluto -58132-12-11 12:13 J -19510944.99 -19510944.99 -19510944.93 0.0064 0.0064
 Saturn -58131-07-12 17:01 J -19510731.93 -19510731.79 -19510731.64 0.0296 0.0237
 Neptune -58131-07-24 21:35 J -19510719.84 -19510719.60 -19510719.35 0.0089 0.0009
 Jupiter -58131-09-01 11:30 J -19510681.11 -19510681.02 -19510680.93 0.0520 0.0476
 Saturn -58130-07-27 03:06 J -19510352.62 -19510352.37 -19510352.12 0.0299 0.0045
 Neptune -58130-07-27 06:28 J -19510352.50 -19510352.23 -19510351.97 0.0089 0.0003 *
 Neptune -58129-07-28 20:23 J -19509984.88 -19509984.65 -19509984.40 0.0089 0.0019
 Neptune -58128-07-31 01:11 J -19509617.69 -19509617.45 -19509617.20 0.0089 0.0024
 Neptune -58127-08-02 18:13 J -19509249.94 -19509249.74 -19509249.51 0.0089 0.0046
 Neptune -58126-08-04 21:35 J -19508882.78 -19508882.60 -19508882.37 0.0089 0.0052
 Neptune -58125-08-06 13:54 J -19508515.04 -19508514.92 -19508514.75 0.0089 0.0073
 Neptune -58124-08-08 19:54 J -19508147.76 -19508147.67 -19508147.54 0.0089 0.0079
 Saturn -58116-01-13 21:35 J -19505432.82 -19505432.60 -19505432.36 0.0264 0.0075
 Saturn -58115-01-25 20:52 J -19505055.84 -19505055.63 -19505055.40 0.0262 0.0114
 Uranus -58109-02-16 19:25 J -19502842.90 -19502842.69 -19502842.47 0.0142 0.0083
 Uranus -58108-02-20 12:42 J -19502473.23 -19502472.97 -19502472.72 0.0142 0.0021
 Saturn -58101-07-20 06:28 J -19499766.46 -19499766.23 -19499766.00 0.0298 0.0080
 Saturn -58100-08-03 23:45 J -19499386.68 -19499386.51 -19499386.34 0.0300 0.0208
 Jupiter -58089-02-21 02:23 J -19495533.61 -19495533.40 -19495533.18 0.0503 0.0219
 Saturn -58087-01-09 07:25 J -19494845.40 -19494845.19 -19494844.99 0.0265 0.0158

Saturn -58086-01-20 23:45 J -19494468.76 -19494468.51 -19494468.26 0.0263 0.0033
 Saturn -58085-02-01 20:37 J -19494091.76 -19494091.64 -19494091.50 0.0262 0.0219
 Jupiter -58077-02-26 01:54 J -19491145.64 -19491145.42 -19491145.20 0.0504 0.0183
 Saturn -58072-07-14 08:23 J -19489180.32 -19489180.15 -19489179.96 0.0297 0.0205
 Jupiter -58072-08-22 08:09 J -19489141.35 -19489141.16 -19489140.97 0.0523 0.0287
 Saturn -58071-07-28 21:06 J -19488800.85 -19488800.62 -19488800.38 0.0299 0.0081
 Uranus -58065-08-17 22:04 J -19486588.71 -19486588.58 -19486588.42 0.0136 0.0108
 Uranus -58064-08-22 12:13 J -19486219.24 -19486218.99 -19486218.74 0.0137 0.0020
 Uranus -58063-08-26 14:52 J -19485850.04 -19485849.88 -19485849.69 0.0137 0.0094
 Jupiter -58060-08-26 19:11 J -19484753.93 -19484753.70 -19484753.47 0.0522 0.0059
 Saturn -58058-01-04 09:06 J -19484258.19 -19484258.12 -19484258.03 0.0266 0.0249
 Saturn -58057-01-16 11:59 J -19483881.24 -19483881.00 -19483880.76 0.0264 0.0053
 Saturn -58056-01-27 05:59 J -19483504.47 -19483504.25 -19483504.03 0.0262 0.0134
 Mars -58054-01-04 04:18 J -19482797.47 -19482797.32 -19482797.16 0.1674 0.1094
 Neptune -58054-01-08 11:16 J -19482793.12 -19482793.03 -19482792.92 0.0089 0.0082
 Neptune -58053-01-10 18:13 J -19482425.86 -19482425.74 -19482425.58 0.0089 0.0074
 Neptune -58052-01-12 09:49 J -19482058.27 -19482058.09 -19482057.85 0.0089 0.0056
 Neptune -58051-01-14 21:21 J -19481690.80 -19481690.61 -19481690.38 0.0089 0.0047
 Neptune -58050-01-17 09:21 J -19481323.37 -19481323.11 -19481322.85 0.0089 0.0027
 Neptune -58049-01-20 01:25 J -19480955.67 -19480955.44 -19480955.18 0.0089 0.0019
 Neptune -58048-01-21 09:06 J -19480588.39 -19480588.12 -19480587.85 0.0089 0.0001
 Jupiter -58048-08-31 15:35 J -19480365.98 -19480365.85 -19480365.71 0.0520 0.0407
 Neptune -58047-01-24 04:33 J -19480220.57 -19480220.31 -19480220.05 0.0088 0.0009
 Neptune -58046-01-26 10:04 J -19479853.33 -19479853.08 -19479852.84 0.0088 0.0029
 Neptune -58045-01-29 05:16 J -19479485.50 -19479485.28 -19479485.02 0.0088 0.0037
 Neptune -58044-01-30 12:28 J -19479118.16 -19479117.98 -19479117.77 0.0088 0.0058
 Neptune -58043-02-02 04:47 J -19478750.45 -19478750.30 -19478750.08 0.0088 0.0065
 Pluto -58043-06-16 14:23 J -19478616.10 -19478615.90 -19478615.67 0.0081 0.0042
 Neptune -58042-02-04 16:04 J -19478382.87 -19478382.83 -19478382.74 0.0088 0.0086
 Saturn -58042-07-23 05:30 J -19478214.51 -19478214.27 -19478214.03 0.0299 0.0044

Saturn	-58041-08-05 19:25 J	-19477834.83	-19477834.69	-19477834.55	0.0300	0.0246
Mars	-58029-07-09 23:45 J	-19473478.68	-19473478.51	-19473478.35	0.1872	0.0781
Saturn	-58028-01-10 14:37 J	-19473294.10	-19473293.89	-19473293.67	0.0265	0.0136
Saturn	-58027-01-22 12:13 J	-19472917.23	-19472916.99	-19472916.75	0.0263	0.0054
Saturn	-58026-02-03 11:16 J	-19472540.11	-19472540.03	-19472539.92	0.0262	0.0240
Uranus	-58025-02-17 04:18 J	-19472161.51	-19472161.32	-19472161.12	0.0142	0.0094
Uranus	-58024-02-20 21:21 J	-19471791.85	-19471791.61	-19471791.36	0.0142	0.0036
Saturn	-58013-07-16 04:18 J	-19467628.51	-19467628.32	-19467628.12	0.0297	0.0171
Saturn	-58012-07-30 20:37 J	-19467248.86	-19467248.64	-19467248.43	0.0299	0.0118
Jupiter	-58006-02-20 07:54 J	-19465218.36	-19465218.17	-19465217.97	0.0503	0.0273

58TH MILLENNIUM BCE

This is a list of transits of Moon in the 58th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-57999-01-06 01:25 J	-19462706.56	-19462706.44	-19462706.30	0.0266	0.0223		
Saturn	-57998-01-17 22:47 J	-19462329.80	-19462329.55	-19462329.29	0.0263	0.0029		
Saturn	-57997-01-29 12:42 J	-19461953.17	-19461952.97	-19461952.76	0.0262	0.0155		
Jupiter	-57994-02-24 19:54 J	-19460830.91	-19460830.67	-19460830.43	0.0504	0.0125		
Jupiter	-57989-08-20 22:33 J	-19458826.72	-19458826.56	-19458826.40	0.0523	0.0368		
Saturn	-57984-07-10 12:13 J	-19457042.02	-19457041.99	-19457041.93	0.0296	0.0290		
Saturn	-57983-07-24 23:16 J	-19456662.78	-19456662.53	-19456662.28	0.0299	0.0009		
Jupiter	-57982-03-01 16:47 J	-19456442.86	-19456442.80	-19456442.72	0.0506	0.0479		
Saturn	-57982-08-08 11:59 J	-19456283.07	-19456283.00	-19456282.90	0.0301	0.0281		

Uranus -57981-08-18 09:49 J -19455907.22 -19455907.09 -19455906.94 0.0136 0.0111
 Uranus -57980-08-22 23:30 J -19455537.78 -19455537.52 -19455537.26 0.0137 0.0001
 Uranus -57979-08-27 02:52 J -19455168.56 -19455168.38 -19455168.18 0.0137 0.0085
 Jupiter -57977-08-25 21:49 J -19454438.82 -19454438.59 -19454438.37 0.0522 0.0029
 Mars -57975-01-06 18:13 J -19453939.93 -19453939.74 -19453939.56 0.1669 0.0471
 Neptune -57972-07-12 19:25 J -19452656.73 -19452656.69 -19452656.61 0.0089 0.0086
 Neptune -57971-07-15 11:59 J -19452289.10 -19452289.00 -19452288.83 0.0089 0.0076
 Neptune -57970-07-17 18:13 J -19451921.91 -19451921.74 -19451921.54 0.0089 0.0059
 Saturn -57969-01-13 02:23 J -19451742.61 -19451742.40 -19451742.17 0.0264 0.0111
 Neptune -57969-07-19 07:25 J -19451554.41 -19451554.19 -19451553.97 0.0089 0.0047
 Saturn -57968-01-24 03:49 J -19451365.57 -19451365.34 -19451365.11 0.0263 0.0077
 Neptune -57968-07-21 17:45 J -19451186.98 -19451186.76 -19451186.51 0.0089 0.0031
 Saturn -57967-02-04 23:16 J -19450988.53 -19450988.53 -19450988.50 0.0261 0.0261
 Neptune -57967-07-24 02:09 J -19450819.66 -19450819.41 -19450819.15 0.0089 0.0020
 Neptune -57966-07-26 17:59 J -19450452.00 -19450451.75 -19450451.50 0.0089 0.0003
 Neptune -57965-07-27 22:18 J -19450084.82 -19450084.57 -19450084.31 0.0089 0.0007
 Jupiter -57965-08-30 08:37 J -19450051.32 -19450051.14 -19450050.96 0.0521 0.0333
 Neptune -57964-07-30 15:35 J -19449717.08 -19449716.85 -19449716.59 0.0089 0.0026
 Neptune -57963-08-01 19:25 J -19449349.90 -19449349.69 -19449349.44 0.0089 0.0036
 Neptune -57962-08-04 11:30 J -19448982.21 -19448982.02 -19448981.79 0.0089 0.0054
 Neptune -57961-08-05 17:59 J -19448614.91 -19448614.75 -19448614.57 0.0089 0.0063
 Neptune -57960-08-08 05:30 J -19448247.36 -19448247.27 -19448247.14 0.0089 0.0080
 Saturn -57954-07-19 04:18 J -19446076.52 -19446076.32 -19446076.10 0.0297 0.0134
 Saturn -57953-08-01 22:04 J -19445696.78 -19445696.58 -19445696.38 0.0300 0.0155
 Uranus -57941-02-17 14:52 J -19441480.09 -19441479.88 -19441479.64 0.0143 0.0074
 Saturn -57940-01-07 14:52 J -19441155.03 -19441154.88 -19441154.70 0.0265 0.0195
 Uranus -57940-02-21 08:37 J -19441110.37 -19441110.14 -19441109.88 0.0142 0.0031
 Saturn -57939-01-19 06:42 J -19440778.48 -19440778.22 -19440777.96 0.0263 0.0006
 Saturn -57938-01-30 23:30 J -19440401.69 -19440401.52 -19440401.33 0.0261 0.0178
 Saturn -57925-07-12 03:06 J -19435490.48 -19435490.37 -19435490.23 0.0297 0.0256

Saturn -57924-07-26 14:09 J -19435111.16 -19435110.91 -19435110.67 0.0299 0.0026
 Jupiter -57923-02-19 03:06 J -19434903.55 -19434903.37 -19434903.18 0.0503 0.0325
 Jupiter -57911-02-23 23:30 J -19430515.75 -19430515.52 -19430515.30 0.0503 0.0072
 Saturn -57910-01-14 17:16 J -19430191.00 -19430190.78 -19430190.55 0.0264 0.0087
 Saturn -57909-01-26 15:35 J -19429814.08 -19429813.85 -19429813.61 0.0262 0.0100
 Jupiter -57906-08-21 01:40 J -19428511.54 -19428511.43 -19428511.31 0.0524 0.0450
 Jupiter -57899-02-28 15:35 J -19426127.99 -19426127.85 -19426127.71 0.0505 0.0412
 Uranus -57897-08-18 23:16 J -19425225.68 -19425225.53 -19425225.34 0.0136 0.0096
 Mars -57896-01-08 21:21 J -19425082.71 -19425082.61 -19425082.51 0.1665 0.1384
 Uranus -57896-08-23 12:13 J -19424856.24 -19424855.99 -19424855.73 0.0137 0.0007
 Saturn -57895-07-21 01:11 J -19424524.67 -19424524.45 -19424524.22 0.0298 0.0100
 Uranus -57895-08-27 16:33 J -19424486.96 -19424486.81 -19424486.66 0.0137 0.0108
 Saturn -57894-08-04 16:33 J -19424144.99 -19424144.81 -19424144.61 0.0300 0.0189
 Jupiter -57894-08-25 15:49 J -19424124.07 -19424123.84 -19424123.60 0.0523 0.0098
 Neptune -57890-01-07 11:01 J -19422893.04 -19422893.04 -19422893.00 0.0089 0.0089
 Neptune -57889-01-10 02:23 J -19422525.49 -19422525.40 -19422525.29 0.0089 0.0082
 Neptune -57888-01-11 14:52 J -19422158.04 -19422157.88 -19422157.68 0.0089 0.0061
 Neptune -57887-01-14 01:11 J -19421790.65 -19421790.45 -19421790.23 0.0089 0.0054
 Neptune -57886-01-16 17:59 J -19421422.97 -19421422.75 -19421422.50 0.0089 0.0032
 Neptune -57885-01-19 00:28 J -19421055.72 -19421055.48 -19421055.21 0.0089 0.0026
 Pluto -57885-12-12 01:40 J -19420727.69 -19420727.43 -19420727.16 0.0064 0.0012
 Neptune -57884-01-20 20:23 J -19420687.91 -19420687.65 -19420687.39 0.0088 0.0004
 Neptune -57883-01-23 01:54 J -19420320.67 -19420320.42 -19420320.16 0.0088 0.0003
 Neptune -57882-01-25 20:52 J -19419952.88 -19419952.63 -19419952.37 0.0088 0.0025
 Jupiter -57882-08-30 13:25 J -19419736.12 -19419735.94 -19419735.75 0.0521 0.0282
 Saturn -57881-01-09 22:18 J -19419603.76 -19419603.57 -19419603.37 0.0265 0.0170
 Neptune -57881-01-28 04:33 J -19419585.53 -19419585.31 -19419585.05 0.0088 0.0033
 Saturn -57880-01-20 15:35 J -19419227.10 -19419226.85 -19419226.61 0.0263 0.0020
 Neptune -57880-01-29 20:09 J -19419217.85 -19419217.66 -19419217.41 0.0088 0.0053
 Neptune -57879-02-01 09:21 J -19418850.30 -19418850.11 -19418849.93 0.0088 0.0060

Saturn -57879-02-01 13:25 J -19418850.08 -19418849.94 -19418849.78 0.0261 0.0202 *
 Neptune -57878-02-03 19:54 J -19418482.77 -19418482.67 -19418482.54 0.0088 0.0080
 Neptune -57877-02-06 12:42 J -19418114.97 -19418114.97 -19418114.94 0.0088 0.0088
 Saturn -57866-07-14 14:37 J -19413939.04 -19413938.89 -19413938.72 0.0297 0.0226
 Saturn -57865-07-28 05:30 J -19413559.50 -19413559.27 -19413559.03 0.0300 0.0060
 Uranus -57857-02-18 03:35 J -19410798.55 -19410798.35 -19410798.12 0.0143 0.0081
 Uranus -57856-02-21 21:49 J -19410428.82 -19410428.59 -19410428.34 0.0142 0.0050
 Saturn -57852-01-04 04:18 J -19409016.35 -19409016.32 -19409016.27 0.0266 0.0261
 Saturn -57851-01-16 05:16 J -19408639.51 -19408639.28 -19408639.03 0.0263 0.0063
 Saturn -57850-01-27 21:06 J -19408262.85 -19408262.62 -19408262.39 0.0262 0.0122
 Jupiter -57840-02-18 08:23 J -19404588.29 -19404588.15 -19404587.99 0.0502 0.0374
 Saturn -57836-07-22 13:54 J -19402973.16 -19402972.92 -19402972.67 0.0298 0.0067
 Saturn -57835-08-06 02:23 J -19402593.56 -19402593.40 -19402593.23 0.0300 0.0221
 Jupiter -57828-02-22 20:52 J -19400200.88 -19400200.63 -19400200.39 0.0504 0.0007
 Jupiter -57823-08-20 01:54 J -19398196.49 -19398196.42 -19398196.36 0.0524 0.0502
 Saturn -57822-01-11 03:49 J -19398052.54 -19398052.34 -19398052.13 0.0264 0.0148
 Saturn -57821-01-23 02:23 J -19397675.64 -19397675.40 -19397675.16 0.0262 0.0042
 Saturn -57820-02-03 00:13 J -19397298.61 -19397298.49 -19397298.35 0.0261 0.0223
 Jupiter -57816-02-27 12:57 J -19395813.12 -19395812.96 -19395812.79 0.0505 0.0350
 Uranus -57813-08-19 13:11 J -19394544.11 -19394543.95 -19394543.77 0.0136 0.0096
 Uranus -57812-08-24 01:25 J -19394174.69 -19394174.44 -19394174.18 0.0137 0.0014
 Jupiter -57811-08-24 22:18 J -19393808.78 -19393808.57 -19393808.36 0.0523 0.0157
 Uranus -57811-08-28 06:28 J -19393805.38 -19393805.23 -19393805.06 0.0137 0.0102
 Neptune -57807-07-14 13:54 J -19392388.97 -19392388.92 -19392388.82 0.0089 0.0085
 Saturn -57807-07-16 01:11 J -19392387.62 -19392387.45 -19392387.27 0.0297 0.0198
 Neptune -57806-07-17 02:23 J -19392021.57 -19392021.40 -19392021.19 0.0089 0.0062
 Saturn -57806-07-30 19:11 J -19392007.92 -19392007.70 -19392007.48 0.0300 0.0091
 Neptune -57805-07-18 14:37 J -19391654.07 -19391653.89 -19391653.69 0.0089 0.0057
 Neptune -57804-07-20 22:18 J -19391286.82 -19391286.57 -19391286.33 0.0089 0.0034
 Neptune -57803-07-23 13:54 J -19390919.15 -19390918.92 -19390918.68 0.0089 0.0029

Neptune -57802-07-25 17:59 J -19390552.00 -19390551.75 -19390551.49 0.0089 0.0006
 Neptune -57801-07-27 11:45 J -19390184.27 -19390184.01 -19390183.76 0.0089 0.0000
 Neptune -57800-07-29 15:35 J -19389817.08 -19389816.85 -19389816.59 0.0089 0.0023
 Neptune -57799-08-01 07:25 J -19389449.43 -19389449.19 -19389448.94 0.0089 0.0028
 Jupiter -57799-08-29 15:21 J -19389421.08 -19389420.86 -19389420.65 0.0522 0.0220
 Neptune -57798-08-03 14:52 J -19389082.07 -19389081.88 -19389081.67 0.0089 0.0050
 Neptune -57797-08-05 02:09 J -19388714.60 -19388714.41 -19388714.19 0.0089 0.0056
 Pluto -57796-06-16 10:47 J -19388399.12 -19388399.05 -19388398.91 0.0081 0.0074
 Neptune -57796-08-07 14:09 J -19388346.99 -19388346.91 -19388346.77 0.0089 0.0079
 Neptune -57795-08-09 20:37 J -19387979.70 -19387979.64 -19387979.53 0.0089 0.0084
 Saturn -57793-01-06 14:09 J -19387465.01 -19387464.91 -19387464.79 0.0265 0.0238
 Saturn -57792-01-17 09:06 J -19387088.38 -19387088.12 -19387087.87 0.0263 0.0044
 Saturn -57791-01-28 23:01 J -19386711.74 -19386711.54 -19386711.32 0.0262 0.0141
 Saturn -57777-07-23 17:30 J -19381422.01 -19381421.77 -19381421.52 0.0298 0.0041
 Saturn -57776-08-07 07:25 J -19381042.32 -19381042.19 -19381042.05 0.0300 0.0249
 Uranus -57773-02-18 19:11 J -19380116.94 -19380116.70 -19380116.45 0.0143 0.0055
 Uranus -57772-02-22 14:23 J -19379747.14 -19379746.90 -19379746.67 0.0142 0.0049
 Mars -57770-01-04 17:01 J -19379065.92 -19379065.79 -19379065.65 0.1682 0.1146
 Saturn -57763-01-12 12:13 J -19376501.19 -19376500.99 -19376500.77 0.0264 0.0128
 Saturn -57762-01-24 11:45 J -19376124.24 -19376124.01 -19376123.76 0.0262 0.0062
 Saturn -57761-02-05 03:35 J -19375747.43 -19375747.35 -19375747.25 0.0261 0.0244
 Jupiter -57757-02-18 08:52 J -19374273.25 -19374273.13 -19374273.00 0.0502 0.0427
 Saturn -57748-07-17 10:18 J -19370836.25 -19370836.07 -19370835.87 0.0297 0.0176
 Saturn -57747-08-01 03:06 J -19370456.59 -19370456.37 -19370456.14 0.0300 0.0115
 Jupiter -57745-02-23 01:40 J -19369885.65 -19369885.43 -19369885.20 0.0503 0.0037
 Mars -57745-07-10 07:11 J -19369747.34 -19369747.20 -19369747.06 0.1862 0.1266
 Saturn -57734-01-07 15:35 J -19365913.98 -19365913.85 -19365913.69 0.0265 0.0218
 Saturn -57733-01-19 07:40 J -19365537.43 -19365537.18 -19365536.93 0.0263 0.0028
 Jupiter -57733-02-28 01:54 J -19365497.61 -19365497.42 -19365497.23 0.0504 0.0303
 Saturn -57732-01-30 02:37 J -19365160.57 -19365160.39 -19365160.18 0.0261 0.0161

Uranus -57729-08-20 03:35 J -19363862.54 -19363862.35 -19363862.15 0.0136 0.0080
 Jupiter -57728-08-24 01:11 J -19363493.67 -19363493.45 -19363493.23 0.0523 0.0218
 Uranus -57728-08-24 14:37 J -19363493.14 -19363492.89 -19363492.63 0.0137 0.0011
 Uranus -57727-08-28 20:09 J -19363123.74 -19363123.66 -19363123.54 0.0137 0.0125
 Neptune -57725-01-09 07:25 J -19362625.26 -19362625.19 -19362625.10 0.0089 0.0084
 Neptune -57724-01-10 16:18 J -19362257.96 -19362257.82 -19362257.66 0.0089 0.0072
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 Saturn -57497-01-24 01:40 J -19279333.69 -19279333.43 -19279333.17 0.0263 0.0029
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 Jupiter -57484-02-25 22:04 J -19274551.81 -19274551.58 -19274551.35 0.0504 0.0184
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 Saturn -57482-07-30 01:25 J -19273667.68 -19273667.44 -19273667.20 0.0299 0.0063
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 Saturn -57468-01-18 05:16 J -19268746.52 -19268746.28 -19268746.05 0.0264 0.0057
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Saturn -57351-01-09 04:18 J -19226021.44 -19226021.32 -19226021.20 0.0267 0.0231
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 Saturn -57334-08-09 09:21 J -19219600.20 -19219600.11 -19219600.01 0.0299 0.0272
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 Neptune -57307-07-29 22:33 J -19209748.80 -19209748.56 -19209748.31 0.0089 0.0014
 Jupiter -57306-03-02 04:33 J -19209533.38 -19209533.31 -19209533.24 0.0504 0.0478
 Saturn -57306-07-20 00:57 J -19209393.66 -19209393.46 -19209393.26 0.0296 0.0160
 Neptune -57306-08-01 02:52 J -19209381.61 -19209381.38 -19209381.12 0.0089 0.0028
 Saturn -57305-08-02 13:40 J -19209014.14 -19209013.93 -19209013.71 0.0298 0.0136
 Neptune -57305-08-02 20:09 J -19209013.86 -19209013.66 -19209013.41 0.0089 0.0043 *
 Neptune -57304-08-05 00:13 J -19208646.67 -19208646.49 -19208646.29 0.0089 0.0058
 Neptune -57303-08-07 16:47 J -19208278.94 -19208278.80 -19208278.65 0.0089 0.0072
 Neptune -57302-08-09 23:16 J -19207911.55 -19207911.53 -19207911.49 0.0089 0.0088
 Jupiter -57301-08-26 19:25 J -19207528.91 -19207528.69 -19207528.47 0.0524 0.0034
 Pluto -57300-06-20 05:30 J -19207231.50 -19207231.27 -19207231.02 0.0081 0.0022

Saturn -57292-01-10 03:21 J -19204470.50 -19204470.36 -19204470.20 0.0267 0.0215
 Saturn -57291-01-21 22:47 J -19204093.80 -19204093.55 -19204093.29 0.0265 0.0018
 Saturn -57290-02-02 20:23 J -19203716.81 -19203716.65 -19203716.47 0.0263 0.0187
 Jupiter -57289-08-31 17:30 J -19203140.88 -19203140.77 -19203140.64 0.0523 0.0445
 Saturn -57277-07-12 22:04 J -19198807.62 -19198807.58 -19198807.52 0.0294 0.0287
 Saturn -57276-07-27 06:13 J -19198428.48 -19198428.24 -19198428.00 0.0297 0.0005
 Uranus -57270-02-16 22:18 J -19196397.62 -19196397.57 -19196397.51 0.0143 0.0139
 Uranus -57269-02-21 23:16 J -19196027.80 -19196027.53 -19196027.26 0.0143 0.0005
 Uranus -57268-02-25 23:45 J -19195657.67 -19195657.51 -19195657.32 0.0142 0.0102
 Saturn -57262-01-17 03:35 J -19193506.57 -19193506.35 -19193506.13 0.0266 0.0113
 Saturn -57261-01-29 02:09 J -19193129.65 -19193129.41 -19193129.17 0.0263 0.0091
 Jupiter -57247-02-20 03:35 J -19187993.55 -19187993.35 -19187993.15 0.0501 0.0282
 Saturn -57247-07-21 13:54 J -19187842.13 -19187841.92 -19187841.69 0.0296 0.0129
 Saturn -57246-08-04 23:01 J -19187462.74 -19187462.54 -19187462.32 0.0299 0.0168
 Jupiter -57235-02-24 12:57 J -19183606.19 -19183605.96 -19183605.73 0.0502 0.0038
 Saturn -57233-01-12 03:21 J -19182919.52 -19182919.36 -19182919.19 0.0267 0.0200
 Saturn -57232-01-23 03:49 J -19182542.59 -19182542.34 -19182542.10 0.0265 0.0005
 Neptune -57231-01-10 17:30 J -19182189.81 -19182189.77 -19182189.66 0.0089 0.0085
 Saturn -57231-02-04 05:30 J -19182165.40 -19182165.27 -19182165.11 0.0263 0.0209
 Neptune -57230-01-13 08:09 J -19181822.33 -19181822.16 -19181821.94 0.0089 0.0061
 Jupiter -57230-08-22 02:52 J -19181601.47 -19181601.38 -19181601.27 0.0526 0.0467
 Neptune -57229-01-15 20:09 J -19181454.84 -19181454.66 -19181454.44 0.0088 0.0055
 Neptune -57228-01-17 06:13 J -19181087.47 -19181087.24 -19181086.97 0.0088 0.0031
 Neptune -57227-01-19 23:30 J -19180719.75 -19180719.52 -19180719.26 0.0088 0.0024
 Neptune -57226-01-22 06:13 J -19180352.50 -19180352.24 -19180351.97 0.0088 0.0002
 Uranus -57226-08-20 07:11 J -19180142.25 -19180142.20 -19180142.12 0.0135 0.0131
 Neptune -57225-01-25 01:54 J -19179984.68 -19179984.42 -19179984.16 0.0088 0.0006
 Uranus -57225-08-23 17:01 J -19179773.02 -19179772.79 -19179772.54 0.0136 0.0031
 Neptune -57224-01-26 07:25 J -19179617.42 -19179617.19 -19179616.93 0.0088 0.0030
 Uranus -57224-08-27 22:04 J -19179403.80 -19179403.58 -19179403.34 0.0136 0.0063

Neptune -57223-01-29 02:37 J -19179249.62 -19179249.39 -19179249.14 0.0088 0.0037
 Jupiter -57223-03-01 11:59 J -19179218.12 -19179218.00 -19179217.86 0.0503 0.0422
 Neptune -57222-01-31 10:04 J -19178882.24 -19178882.08 -19178881.88 0.0088 0.0061
 Neptune -57221-02-03 01:54 J -19178514.60 -19178514.42 -19178514.24 0.0088 0.0067
 Saturn -57218-07-15 12:13 J -19177256.09 -19177255.99 -19177255.86 0.0294 0.0256
 Jupiter -57218-08-27 01:54 J -19177213.65 -19177213.42 -19177213.18 0.0524 0.0012
 Saturn -57217-07-28 23:59 J -19176876.73 -19176876.50 -19176876.27 0.0297 0.0035
 Jupiter -57206-08-31 14:09 J -19172826.05 -19172825.91 -19172825.75 0.0523 0.0389
 Saturn -57203-01-18 09:49 J -19171955.32 -19171955.09 -19171954.84 0.0266 0.0092
 Mars -57202-01-06 18:13 J -19171601.92 -19171601.74 -19171601.57 0.1696 0.0844
 Saturn -57202-01-30 03:21 J -19171578.59 -19171578.36 -19171578.13 0.0263 0.0114
 Saturn -57188-07-23 01:54 J -19166290.66 -19166290.42 -19166290.18 0.0296 0.0093
 Saturn -57187-08-06 10:47 J -19165911.22 -19165911.05 -19165910.86 0.0299 0.0204
 Uranus -57186-02-17 15:21 J -19165715.99 -19165715.86 -19165715.70 0.0143 0.0117
 Uranus -57185-02-22 15:35 J -19165346.12 -19165345.85 -19165345.58 0.0143 0.0007
 Uranus -57184-02-26 16:18 J -19164975.91 -19164975.82 -19164975.69 0.0142 0.0127
 Saturn -57174-01-13 09:49 J -19161368.26 -19161368.09 -19161367.90 0.0267 0.0180
 Saturn -57173-01-25 14:52 J -19160991.11 -19160990.88 -19160990.64 0.0265 0.0025
 Saturn -57172-02-05 14:23 J -19160614.00 -19160613.90 -19160613.76 0.0263 0.0232
 Jupiter -57164-02-18 23:16 J -19157678.68 -19157678.53 -19157678.36 0.0500 0.0350
 Saturn -57159-07-17 10:33 J -19155704.21 -19155704.06 -19155703.91 0.0294 0.0221
 Saturn -57158-07-31 22:33 J -19155324.79 -19155324.56 -19155324.32 0.0297 0.0072
 Jupiter -57152-02-23 20:37 J -19153290.88 -19153290.64 -19153290.40 0.0502 0.0023
 Neptune -57149-07-15 09:06 J -19152053.14 -19152053.12 -19152053.07 0.0089 0.0088
 Neptune -57148-07-17 16:04 J -19151685.97 -19151685.83 -19151685.63 0.0089 0.0065
 Neptune -57147-07-20 04:18 J -19151318.50 -19151318.32 -19151318.09 0.0089 0.0058
 Jupiter -57147-08-21 06:57 J -19151286.23 -19151286.21 -19151286.18 0.0526 0.0521
 Neptune -57146-07-22 16:47 J -19150951.03 -19150950.80 -19150950.57 0.0089 0.0034
 Neptune -57145-07-23 23:45 J -19150583.75 -19150583.51 -19150583.25 0.0089 0.0028
 Saturn -57144-01-19 15:21 J -19150404.10 -19150403.86 -19150403.61 0.0265 0.0069

Neptune -57144-07-26 16:18 J -19150216.07 -19150215.82 -19150215.57 0.0089 0.0004
 Saturn -57143-01-31 11:01 J -19150027.25 -19150027.04 -19150026.83 0.0263 0.0138
 Neptune -57143-07-28 20:37 J -19149848.90 -19149848.64 -19149848.39 0.0089 0.0002
 Neptune -57142-07-31 13:54 J -19149481.15 -19149480.92 -19149480.66 0.0089 0.0027
 Uranus -57142-08-20 21:21 J -19149460.69 -19149460.61 -19149460.48 0.0135 0.0123
 Pluto -57142-12-16 15:35 J -19149343.02 -19149342.85 -19149342.62 0.0063 0.0042
 Neptune -57141-08-01 17:59 J -19149113.96 -19149113.75 -19149113.50 0.0089 0.0033
 Uranus -57141-08-24 08:23 J -19149091.38 -19149091.15 -19149090.90 0.0136 0.0026
 Pluto -57141-12-17 09:06 J -19148976.33 -19148976.12 -19148975.87 0.0064 0.0030
 Jupiter -57140-02-28 05:45 J -19148903.42 -19148903.26 -19148903.10 0.0503 0.0365
 Neptune -57140-08-04 10:04 J -19148746.27 -19148746.08 -19148745.87 0.0089 0.0056
 Uranus -57140-08-28 12:42 J -19148722.17 -19148721.97 -19148721.76 0.0136 0.0081
 Neptune -57139-08-06 17:45 J -19148378.93 -19148378.76 -19148378.58 0.0089 0.0062
 Neptune -57138-08-09 04:33 J -19148011.37 -19148011.31 -19148011.23 0.0089 0.0085
 Jupiter -57135-08-25 18:13 J -19146898.96 -19146898.74 -19146898.51 0.0525 0.0087
 Saturn -57129-07-24 17:30 J -19144739.01 -19144738.77 -19144738.53 0.0296 0.0055
 Saturn -57128-08-08 05:59 J -19144359.39 -19144359.25 -19144359.11 0.0299 0.0242
 Mars -57123-01-09 04:18 J -19142744.47 -19142744.32 -19142744.17 0.1691 0.0964
 Jupiter -57123-08-30 19:11 J -19142510.89 -19142510.70 -19142510.52 0.0523 0.0311
 Saturn -57115-01-14 23:30 J -19139816.70 -19139816.52 -19139816.32 0.0267 0.0159
 Saturn -57114-01-27 02:52 J -19139439.62 -19139439.38 -19139439.13 0.0264 0.0047
 Saturn -57113-02-07 20:23 J -19139062.69 -19139062.65 -19139062.59 0.0263 0.0257
 Uranus -57102-02-18 06:42 J -19135034.36 -19135034.22 -19135034.07 0.0143 0.0116
 Uranus -57101-02-23 06:13 J -19134664.51 -19134664.24 -19134663.98 0.0143 0.0018
 Uranus -57100-02-27 08:09 J -19134294.27 -19134294.16 -19134294.03 0.0142 0.0125
 Saturn -57100-07-19 09:06 J -19134152.31 -19134152.12 -19134151.94 0.0295 0.0186
 Saturn -57099-08-02 18:42 J -19133772.95 -19133772.72 -19133772.49 0.0297 0.0110
 Mars -57098-07-13 08:23 J -19133428.36 -19133428.15 -19133427.95 0.1847 0.0151
 Saturn -57086-01-10 02:23 J -19129229.49 -19129229.40 -19129229.30 0.0268 0.0247
 Saturn -57085-01-21 23:59 J -19128852.74 -19128852.50 -19128852.25 0.0265 0.0046

Saturn -57084-02-02 00:57 J -19128475.64 -19128475.46 -19128475.26 0.0263 0.0164
 Jupiter -57081-02-19 05:45 J -19127363.39 -19127363.26 -19127363.12 0.0501 0.0415
 Saturn -57070-07-27 14:52 J -19123187.11 -19123186.88 -19123186.64 0.0297 0.0020
 Jupiter -57069-02-23 13:54 J -19122976.15 -19122975.92 -19122975.68 0.0502 0.0083
 Saturn -57069-08-10 06:28 J -19122807.30 -19122807.23 -19122807.15 0.0299 0.0281
 Neptune -57067-01-09 23:59 J -19122289.52 -19122289.50 -19122289.46 0.0089 0.0088
 Neptune -57066-01-12 13:11 J -19121922.08 -19121921.95 -19121921.79 0.0089 0.0072
 Neptune -57065-01-14 22:04 J -19121554.77 -19121554.58 -19121554.36 0.0089 0.0058
 Neptune -57064-01-16 15:49 J -19121187.06 -19121186.84 -19121186.61 0.0088 0.0042
 Neptune -57063-01-18 21:21 J -19120819.85 -19120819.61 -19120819.36 0.0088 0.0028
 Neptune -57062-01-21 16:47 J -19120452.05 -19120451.80 -19120451.53 0.0088 0.0013
 Neptune -57061-01-23 22:33 J -19120084.81 -19120084.56 -19120084.30 0.0088 0.0004
 Neptune -57060-01-25 16:33 J -19119717.07 -19119716.81 -19119716.54 0.0088 0.0019
 Neptune -57059-01-28 01:11 J -19119349.67 -19119349.45 -19119349.21 0.0088 0.0036
 Neptune -57058-01-30 15:21 J -19118982.06 -19118981.86 -19118981.61 0.0088 0.0049
 Uranus -57058-08-21 10:47 J -19118779.18 -19118779.05 -19118778.90 0.0135 0.0112
 Neptune -57057-02-02 05:16 J -19118614.43 -19118614.28 -19118614.10 0.0088 0.0066
 Jupiter -57057-02-28 12:42 J -19118588.16 -19118587.97 -19118587.79 0.0502 0.0312
 Uranus -57057-08-24 22:18 J -19118409.81 -19118409.57 -19118409.33 0.0136 0.0013
 Saturn -57056-01-16 15:06 J -19118265.08 -19118264.87 -19118264.66 0.0266 0.0134
 Neptune -57056-02-03 15:21 J -19118246.98 -19118246.86 -19118246.74 0.0088 0.0079
 Uranus -57056-08-29 01:25 J -19118040.64 -19118040.44 -19118040.22 0.0136 0.0081
 Saturn -57055-01-28 11:59 J -19117888.24 -19117888.00 -19117887.74 0.0264 0.0073
 Pluto -57052-06-21 22:33 J -19116647.81 -19116647.56 -19116647.29 0.0081 0.0017
 Jupiter -57052-08-24 21:21 J -19116583.83 -19116583.61 -19116583.39 0.0526 0.0166
 Saturn -57041-07-21 04:33 J -19112600.52 -19112600.31 -19112600.09 0.0295 0.0151
 Saturn -57040-08-04 11:45 J -19112221.22 -19112221.01 -19112220.79 0.0298 0.0149
 Jupiter -57040-08-29 09:21 J -19112196.32 -19112196.11 -19112195.90 0.0524 0.0236
 Saturn -57027-01-11 12:13 J -19107678.11 -19107677.99 -19107677.84 0.0267 0.0223
 Saturn -57026-01-23 14:37 J -19107301.13 -19107300.89 -19107300.65 0.0265 0.0019

Saturn -57025-02-04 16:18 J -19106923.97 -19106923.82 -19106923.64 0.0263 0.0190

Uranus -57018-02-18 20:52 J -19104352.81 -19104352.63 -19104352.44 0.0144 0.0097

Uranus -57017-02-23 18:57 J -19103982.97 -19103982.71 -19103982.44 0.0143 0.0014

Saturn -57012-07-15 00:13 J -19102014.56 -19102014.49 -19102014.41 0.0294 0.0277

Saturn -57011-07-29 13:11 J -19101635.19 -19101634.95 -19101634.72 0.0297 0.0017

57TH MILLENNIUM BCE

This is a list of transits of Moon in the 57th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-56998-02-17 23:01 J		-19097048.60	-19097048.54	-19097048.46	0.0500	0.0473	
Saturn	-56997-01-19 01:25 J		-19096713.67	-19096713.44	-19096713.21	0.0266	0.0108	
Saturn	-56996-01-29 19:25 J		-19096336.92	-19096336.69	-19096336.45	0.0264	0.0098	
Jupiter	-56986-02-22 21:21 J		-19092660.84	-19092660.61	-19092660.39	0.0501	0.0140	
Neptune	-56984-07-16 20:09 J		-19091785.78	-19091785.66	-19091785.50	0.0089	0.0075	
Neptune	-56983-07-19 09:49 J		-19091418.24	-19091418.09	-19091417.90	0.0089	0.0064	
Neptune	-56982-07-21 16:33 J		-19091051.02	-19091050.81	-19091050.57	0.0089	0.0045	
Saturn	-56982-07-23 18:42 J		-19091048.95	-19091048.72	-19091048.49	0.0295	0.0113	
Neptune	-56981-07-23 09:35 J		-19090683.32	-19090683.10	-19090682.85	0.0089	0.0033	
Saturn	-56981-08-06 03:49 J		-19090669.52	-19090669.34	-19090669.14	0.0298	0.0186	
Neptune	-56980-07-25 13:54 J		-19090316.17	-19090315.92	-19090315.66	0.0089	0.0014	
Neptune	-56979-07-28 07:40 J		-19089948.43	-19089948.18	-19089947.92	0.0089	0.0001	
Neptune	-56978-07-30 12:13 J		-19089581.23	-19089580.99	-19089580.74	0.0089	0.0017	
Neptune	-56977-08-01 03:06 J		-19089213.62	-19089213.37	-19089213.12	0.0089	0.0029	

Neptune -56976-08-03 11:30 J -19088846.22 -19088846.02 -19088845.80 0.0089 0.0046
 Neptune -56975-08-05 21:21 J -19088478.77 -19088478.61 -19088478.39 0.0089 0.0060
 Jupiter -56974-02-27 03:49 J -19088273.55 -19088273.34 -19088273.12 0.0502 0.0243
 Neptune -56974-08-08 11:16 J -19088111.14 -19088111.03 -19088110.90 0.0089 0.0077
 Uranus -56974-08-21 23:59 J -19088097.64 -19088097.50 -19088097.33 0.0135 0.0107
 Uranus -56973-08-25 12:28 J -19087728.22 -19087727.98 -19087727.73 0.0136 0.0008
 Uranus -56972-08-29 14:52 J -19087359.04 -19087358.88 -19087358.69 0.0136 0.0098
 Jupiter -56969-08-23 15:35 J -19086269.05 -19086268.85 -19086268.64 0.0526 0.0233
 Saturn -56968-01-13 03:06 J -19086126.53 -19086126.37 -19086126.20 0.0267 0.0194
 Saturn -56967-01-25 07:25 J -19085749.44 -19085749.19 -19085748.95 0.0264 0.0009
 Saturn -56966-02-06 04:18 J -19085372.46 -19085372.32 -19085372.17 0.0263 0.0215
 Jupiter -56957-08-28 15:49 J -19081881.05 -19081880.84 -19081880.63 0.0524 0.0159
 Saturn -56953-07-16 20:37 J -19080462.77 -19080462.64 -19080462.51 0.0295 0.0242
 Saturn -56952-07-31 08:09 J -19080083.39 -19080083.16 -19080082.92 0.0298 0.0052
 Jupiter -56945-09-02 05:16 J -19077493.33 -19077493.28 -19077493.22 0.0523 0.0508
 Saturn -56938-01-20 07:54 J -19075162.41 -19075162.17 -19075161.93 0.0265 0.0083
 Saturn -56937-02-01 05:30 J -19074785.48 -19074785.27 -19074785.05 0.0263 0.0125
 Uranus -56934-02-19 05:45 J -19073671.41 -19073671.26 -19073671.06 0.0144 0.0103
 Uranus -56933-02-24 03:35 J -19073301.60 -19073301.35 -19073301.08 0.0143 0.0032
 Uranus -56932-02-28 07:54 J -19072931.21 -19072931.17 -19072931.10 0.0142 0.0139
 Saturn -56923-07-25 06:13 J -19069497.47 -19069497.24 -19069497.00 0.0296 0.0079
 Saturn -56922-08-08 19:54 J -19069117.82 -19069117.67 -19069117.50 0.0298 0.0220
 Mars -56918-01-06 23:59 J -19067870.66 -19067870.50 -19067870.34 0.1705 0.0969
 Saturn -56909-01-15 18:13 J -19064574.93 -19064574.74 -19064574.56 0.0266 0.0168
 Saturn -56908-01-26 18:13 J -19064197.99 -19064197.74 -19064197.48 0.0264 0.0035
 Saturn -56907-02-07 09:35 J -19063821.18 -19063821.10 -19063820.98 0.0262 0.0243
 Jupiter -56903-02-21 14:23 J -19062346.12 -19062345.90 -19062345.68 0.0501 0.0204
 Neptune -56902-01-11 13:25 J -19062021.99 -19062021.94 -19062021.84 0.0089 0.0085
 Neptune -56901-01-14 08:09 J -19061654.33 -19061654.16 -19061653.96 0.0089 0.0061
 Neptune -56900-01-15 13:25 J -19061287.13 -19061286.94 -19061286.72 0.0089 0.0055

Neptune -56899-01-18 08:52 J -19060919.36 -19060919.13 -19060918.86 0.0088 0.0030
 Neptune -56898-01-20 15:21 J -19060552.10 -19060551.86 -19060551.61 0.0088 0.0023
 Neptune -56897-01-23 08:52 J -19060184.40 -19060184.13 -19060183.86 0.0088 0.0002
 Neptune -56896-01-24 18:13 J -19059816.98 -19059816.74 -19059816.48 0.0088 0.0009
 Neptune -56895-01-27 06:42 J -19059449.46 -19059449.22 -19059448.95 0.0088 0.0032
 Neptune -56894-01-29 20:52 J -19059081.84 -19059081.63 -19059081.38 0.0088 0.0040
 Saturn -56894-07-19 09:35 J -19058911.28 -19058911.10 -19058910.93 0.0295 0.0208
 Pluto -56894-12-18 06:28 J -19058759.33 -19058759.23 -19058759.06 0.0063 0.0054
 Neptune -56893-02-01 05:16 J -19058714.45 -19058714.28 -19058714.08 0.0088 0.0064
 Saturn -56893-08-01 17:59 J -19058531.99 -19058531.75 -19058531.51 0.0298 0.0085
 Pluto -56893-12-18 12:13 J -19058393.23 -19058392.99 -19058392.74 0.0064 0.0020
 Neptune -56892-02-02 23:45 J -19058346.64 -19058346.51 -19058346.34 0.0088 0.0071
 Jupiter -56891-02-26 10:33 J -19057958.27 -19057958.06 -19057957.85 0.0502 0.0204
 Uranus -56890-08-22 13:40 J -19057416.10 -19057415.93 -19057415.74 0.0135 0.0096
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 Uranus -56888-08-30 03:49 J -19056677.50 -19056677.34 -19056677.15 0.0136 0.0098
 Jupiter -56886-08-23 22:04 J -19055953.76 -19055953.58 -19055953.39 0.0526 0.0303
 Saturn -56880-01-09 16:33 J -19053987.86 -19053987.81 -19053987.73 0.0267 0.0258
 Saturn -56879-01-21 15:35 J -19053611.08 -19053610.85 -19053610.60 0.0265 0.0058
 Saturn -56878-02-02 17:30 J -19053233.95 -19053233.77 -19053233.56 0.0263 0.0152
 Jupiter -56874-08-28 10:47 J -19051566.29 -19051566.05 -19051565.81 0.0525 0.0078
 Saturn -56864-07-26 19:11 J -19047945.93 -19047945.70 -19047945.47 0.0296 0.0045
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 Saturn -56850-01-17 03:49 J -19043023.54 -19043023.34 -19043023.12 0.0266 0.0143
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 Saturn -56437-01-25 09:06 J -18892167.36 -18892167.12 -18892166.87 0.0266 0.0024
 Saturn -56436-02-05 13:11 J -18891790.09 -18891789.95 -18891789.79 0.0264 0.0203
 Uranus -56430-02-22 07:25 J -18889582.42 -18889582.19 -18889581.95 0.0144 0.0058
 Uranus -56429-02-27 02:23 J -18889212.61 -18889212.40 -18889212.17 0.0143 0.0075
 Saturn -56422-07-29 04:33 J -18886503.54 -18886503.31 -18886503.07 0.0295 0.0030
 Saturn -56421-08-11 16:18 J -18886123.92 -18886123.82 -18886123.71 0.0297 0.0265
 Neptune -56408-01-13 10:04 J -18881586.22 -18881586.08 -18881585.90 0.0089 0.0071

Saturn -56408-01-19 10:47 J -18881580.27 -18881580.05 -18881579.83 0.0268 0.0132
 Neptune -56407-01-15 23:01 J -18881218.71 -18881218.54 -18881218.33 0.0089 0.0059
 Saturn -56407-01-31 08:37 J -18881203.38 -18881203.14 -18881202.90 0.0265 0.0098
 Neptune -56406-01-18 08:23 J -18880851.38 -18880851.15 -18880850.90 0.0089 0.0038
 Neptune -56405-01-21 02:23 J -18880483.64 -18880483.40 -18880483.16 0.0089 0.0026
 Jupiter -56405-02-19 21:21 J -18880453.74 -18880453.61 -18880453.46 0.0499 0.0393
 Neptune -56404-01-22 08:37 J -18880116.40 -18880116.14 -18880115.88 0.0089 0.0006
 Neptune -56403-01-25 04:18 J -18879748.58 -18879748.32 -18879748.06 0.0088 0.0007
 Neptune -56402-01-27 09:35 J -18879381.33 -18879381.10 -18879380.84 0.0088 0.0027
 Neptune -56401-01-30 04:04 J -18879013.55 -18879013.33 -18879013.08 0.0088 0.0041
 Neptune -56400-01-31 12:13 J -18878646.16 -18878645.99 -18878645.78 0.0088 0.0060
 Neptune -56399-02-03 02:23 J -18878278.51 -18878278.40 -18878278.21 0.0088 0.0074
 Pluto -56397-12-20 20:37 J -18877226.85 -18877226.64 -18877226.39 0.0063 0.0028
 Pluto -56396-12-22 12:28 J -18876860.16 -18876859.98 -18876859.77 0.0064 0.0044
 Jupiter -56393-02-24 09:06 J -18876066.37 -18876066.12 -18876065.87 0.0500 0.0003
 Saturn -56393-07-22 04:04 J -18875917.54 -18875917.33 -18875917.11 0.0293 0.0159
 Saturn -56392-08-05 08:23 J -18875538.36 -18875538.15 -18875537.92 0.0297 0.0132
 Uranus -56386-08-25 23:30 J -18873326.74 -18873326.52 -18873326.27 0.0135 0.0046
 Uranus -56385-08-29 13:40 J -18872957.16 -18872956.93 -18872956.70 0.0135 0.0053
 Jupiter -56381-02-28 23:01 J -18871678.71 -18871678.54 -18871678.37 0.0501 0.0331
 Saturn -56379-01-14 04:47 J -18870993.41 -18870993.30 -18870993.16 0.0269 0.0233
 Saturn -56378-01-26 12:57 J -18870616.20 -18870615.96 -18870615.72 0.0266 0.0003
 Saturn -56377-02-07 16:47 J -18870238.92 -18870238.80 -18870238.66 0.0264 0.0223
 Jupiter -56376-08-25 18:13 J -18869673.94 -18869673.74 -18869673.53 0.0527 0.0208
 Saturn -56364-07-16 09:49 J -18865331.12 -18865331.09 -18865331.06 0.0291 0.0287
 Jupiter -56364-08-30 13:40 J -18865286.15 -18865285.93 -18865285.72 0.0526 0.0227
 Saturn -56363-07-30 16:33 J -18864952.05 -18864951.81 -18864951.57 0.0295 0.0006
 Saturn -56362-08-14 01:25 J -18864572.50 -18864572.44 -18864572.39 0.0297 0.0289
 Mars -56350-01-08 23:16 J -18860406.71 -18860406.53 -18860406.35 0.1720 0.0727
 Saturn -56349-01-21 09:21 J -18860029.34 -18860029.11 -18860028.87 0.0268 0.0110

Saturn -56348-02-01 07:54 J -18859652.40 -18859652.17 -18859651.95 0.0265 0.0119
 Uranus -56346-02-22 16:18 J -18858901.05 -18858900.82 -18858900.57 0.0144 0.0049
 Uranus -56345-02-27 11:01 J -18858531.25 -18858531.04 -18858530.80 0.0143 0.0067
 Saturn -56334-07-24 10:33 J -18854366.27 -18854366.06 -18854365.84 0.0293 0.0133
 Saturn -56333-08-06 18:42 J -18853986.92 -18853986.72 -18853986.52 0.0297 0.0157
 Neptune -56326-07-18 17:30 J -18851449.88 -18851449.77 -18851449.61 0.0089 0.0075
 Neptune -56325-07-20 04:33 J -18851082.46 -18851082.31 -18851082.10 0.0089 0.0065
 Neptune -56324-07-22 17:30 J -18850714.97 -18850714.77 -18850714.54 0.0089 0.0043
 Neptune -56323-07-25 00:13 J -18850347.73 -18850347.49 -18850347.24 0.0089 0.0033
 Jupiter -56322-02-18 21:35 J -18850138.71 -18850138.60 -18850138.48 0.0498 0.0433
 Neptune -56322-07-27 17:01 J -18849980.03 -18849979.79 -18849979.53 0.0089 0.0011
 Neptune -56321-07-28 21:21 J -18849612.87 -18849612.61 -18849612.36 0.0089 0.0001
 Saturn -56320-01-15 11:45 J -18849442.14 -18849442.01 -18849441.85 0.0269 0.0211
 Neptune -56320-07-31 14:37 J -18849245.13 -18849244.89 -18849244.63 0.0089 0.0023
 Saturn -56319-01-27 20:09 J -18849064.91 -18849064.66 -18849064.42 0.0266 0.0018
 Neptune -56319-08-02 19:25 J -18848877.91 -18848877.69 -18848877.44 0.0089 0.0034
 Saturn -56318-02-08 17:59 J -18848687.84 -18848687.75 -18848687.64 0.0264 0.0242
 Neptune -56318-08-05 11:16 J -18848510.23 -18848510.03 -18848509.81 0.0089 0.0054
 Neptune -56317-08-06 19:11 J -18848142.84 -18848142.70 -18848142.51 0.0089 0.0066
 Neptune -56316-08-09 05:59 J -18847775.29 -18847775.25 -18847775.17 0.0089 0.0086
 Jupiter -56310-02-23 12:57 J -18845751.19 -18845750.96 -18845750.74 0.0499 0.0056
 Pluto -56307-06-26 21:06 J -18844531.88 -18844531.62 -18844531.36 0.0081 0.0001
 Saturn -56305-07-18 00:28 J -18843779.58 -18843779.48 -18843779.36 0.0291 0.0257
 Saturn -56304-08-01 03:35 J -18843400.59 -18843400.35 -18843400.10 0.0295 0.0026
 Uranus -56302-08-26 11:45 J -18842645.23 -18842645.01 -18842644.76 0.0135 0.0045
 Uranus -56301-08-30 01:40 J -18842275.66 -18842275.43 -18842275.20 0.0135 0.0058
 Jupiter -56298-02-28 05:30 J -18841363.47 -18841363.27 -18841363.06 0.0501 0.0277
 Jupiter -56293-08-24 20:09 J -18839358.86 -18839358.66 -18839358.45 0.0527 0.0265
 Saturn -56290-01-22 10:47 J -18838478.28 -18838478.05 -18838477.80 0.0267 0.0086
 Saturn -56289-02-03 14:37 J -18838101.08 -18838100.89 -18838100.67 0.0265 0.0142

Jupiter -56281-08-29 13:25 J -18834971.14 -18834970.94 -18834970.72 0.0526 0.0163
 Saturn -56275-07-26 02:23 J -18832814.62 -18832814.40 -18832814.18 0.0294 0.0102
 Saturn -56274-08-09 13:11 J -18832435.12 -18832434.95 -18832434.76 0.0297 0.0188
 Mars -56271-01-11 06:57 J -18831549.34 -18831549.21 -18831549.08 0.1715 0.1180
 Uranus -56262-02-22 23:01 J -18828219.78 -18828219.54 -18828219.29 0.0144 0.0052
 Saturn -56261-01-17 22:18 J -18827890.74 -18827890.57 -18827890.39 0.0269 0.0186
 Uranus -56261-02-27 18:28 J -18827849.93 -18827849.73 -18827849.51 0.0143 0.0080
 Saturn -56260-01-29 01:11 J -18827513.70 -18827513.45 -18827513.19 0.0266 0.0043
 Mars -56246-07-13 10:04 J -18822235.20 -18822235.08 -18822234.95 0.1816 0.1412
 Saturn -56246-07-20 15:49 J -18822227.99 -18822227.84 -18822227.67 0.0291 0.0224
 Saturn -56245-08-02 16:33 J -18821849.06 -18821848.81 -18821848.56 0.0295 0.0057
 Neptune -56244-01-12 18:28 J -18821685.78 -18821685.73 -18821685.62 0.0089 0.0084
 Neptune -56243-01-15 02:52 J -18821318.55 -18821318.38 -18821318.16 0.0089 0.0061
 Neptune -56242-01-17 21:06 J -18820950.81 -18820950.62 -18820950.40 0.0089 0.0052
 Neptune -56241-01-20 02:37 J -18820583.62 -18820583.39 -18820583.13 0.0089 0.0028
 Neptune -56240-01-21 22:33 J -18820215.82 -18820215.56 -18820215.31 0.0089 0.0019
 Neptune -56239-01-24 04:18 J -18819848.57 -18819848.32 -18819848.06 0.0089 0.0007
 Jupiter -56239-02-18 00:57 J -18819823.49 -18819823.46 -18819823.42 0.0498 0.0489
 Neptune -56238-01-26 22:04 J -18819480.85 -18819480.58 -18819480.32 0.0089 0.0015
 Neptune -56237-01-29 06:42 J -18819113.43 -18819113.22 -18819112.98 0.0088 0.0040
 Neptune -56236-01-30 20:23 J -18818745.86 -18818745.65 -18818745.40 0.0088 0.0048
 Neptune -56235-02-02 10:18 J -18818378.19 -18818378.07 -18818377.90 0.0088 0.0073
 Neptune -56234-02-04 19:11 J -18818010.77 -18818010.70 -18818010.55 0.0088 0.0081
 Saturn -56231-01-23 21:21 J -18816926.85 -18816926.61 -18816926.38 0.0267 0.0059
 Saturn -56230-02-05 03:21 J -18816549.54 -18816549.36 -18816549.17 0.0265 0.0168
 Jupiter -56227-02-22 17:16 J -18815436.02 -18815435.78 -18815435.54 0.0499 0.0112
 Uranus -56218-08-27 00:13 J -18811963.72 -18811963.49 -18811963.24 0.0135 0.0033
 Uranus -56217-08-30 13:11 J -18811594.16 -18811593.95 -18811593.72 0.0136 0.0066
 Saturn -56216-07-27 23:01 J -18811262.77 -18811262.54 -18811262.31 0.0294 0.0067
 Jupiter -56215-02-27 03:49 J -18811048.55 -18811048.34 -18811048.13 0.0501 0.0217

Saturn -56215-08-11 08:23 J -18810883.30 -18810883.15 -18810882.99 0.0297 0.0223
 Jupiter -56210-08-24 17:16 J -18809043.95 -18809043.78 -18809043.62 0.0528 0.0351
 Saturn -56202-01-19 06:42 J -18806339.42 -18806339.22 -18806339.02 0.0269 0.0160
 Saturn -56201-01-31 05:16 J -18805962.52 -18805962.28 -18805962.03 0.0266 0.0072
 Jupiter -56198-08-29 14:37 J -18804656.12 -18804655.89 -18804655.66 0.0527 0.0092
 Saturn -56187-07-22 06:28 J -18800676.42 -18800676.23 -18800676.04 0.0292 0.0189
 Saturn -56186-08-05 10:18 J -18800297.30 -18800297.07 -18800296.84 0.0295 0.0097
 Uranus -56178-02-23 09:21 J -18797538.36 -18797538.11 -18797537.86 0.0144 0.0043
 Uranus -56177-02-28 04:33 J -18797168.51 -18797168.31 -18797168.08 0.0143 0.0074
 Saturn -56173-01-14 02:23 J -18795752.45 -18795752.40 -18795752.34 0.0270 0.0262
 Saturn -56172-01-25 12:28 J -18795375.21 -18795374.98 -18795374.73 0.0267 0.0030
 Saturn -56171-02-06 14:52 J -18794998.04 -18794997.88 -18794997.71 0.0265 0.0195
 Mars -56167-07-16 18:28 J -18793376.90 -18793376.73 -18793376.55 0.1824 0.0953
 Neptune -56162-07-18 01:11 J -18791549.46 -18791549.45 -18791549.40 0.0089 0.0088
 Neptune -56161-07-19 15:35 J -18791182.00 -18791181.85 -18791181.68 0.0089 0.0067
 Neptune -56160-07-21 21:49 J -18790814.78 -18790814.59 -18790814.38 0.0089 0.0056
 Neptune -56159-07-24 15:06 J -18790447.09 -18790446.87 -18790446.62 0.0089 0.0034
 Neptune -56158-07-26 19:11 J -18790079.94 -18790079.70 -18790079.45 0.0089 0.0023
 Neptune -56157-07-28 12:57 J -18789712.22 -18789711.96 -18789711.70 0.0089 0.0001
 Saturn -56157-07-29 20:09 J -18789710.90 -18789710.66 -18789710.42 0.0294 0.0029
 Neptune -56156-07-30 17:59 J -18789345.00 -18789344.75 -18789344.50 0.0089 0.0010
 Saturn -56156-08-13 01:54 J -18789331.53 -18789331.42 -18789331.29 0.0297 0.0260
 Neptune -56155-08-02 08:09 J -18788977.39 -18788977.16 -18788976.90 0.0089 0.0033
 Neptune -56154-08-04 17:01 J -18788609.99 -18788609.79 -18788609.55 0.0089 0.0043
 Neptune -56153-08-06 02:37 J -18788242.54 -18788242.39 -18788242.18 0.0089 0.0066
 Neptune -56152-08-08 17:16 J -18787874.89 -18787874.78 -18787874.64 0.0089 0.0076
 Pluto -56148-12-23 11:45 J -18786277.25 -18786277.01 -18786276.76 0.0063 0.0012
 Jupiter -56144-02-21 14:09 J -18785121.12 -18785120.91 -18785120.69 0.0499 0.0174
 Saturn -56143-01-20 13:40 J -18784788.15 -18784787.93 -18784787.70 0.0268 0.0131
 Saturn -56142-02-01 15:06 J -18784411.08 -18784410.87 -18784410.63 0.0266 0.0101

Uranus -56135-08-23 11:16 J -18781651.11 -18781651.03 -18781650.91 0.0135 0.0124
 Uranus -56134-08-27 12:28 J -18781282.22 -18781281.98 -18781281.74 0.0135 0.0033
 Uranus -56133-08-31 00:57 J -18780912.67 -18780912.46 -18780912.23 0.0136 0.0072
 Jupiter -56132-02-26 10:18 J -18780733.29 -18780733.07 -18780732.84 0.0500 0.0147
 Saturn -56128-07-23 23:59 J -18779124.70 -18779124.50 -18779124.29 0.0292 0.0153
 Saturn -56127-08-07 08:09 J -18778745.37 -18778745.16 -18778744.95 0.0296 0.0135
 Jupiter -56127-08-23 16:47 J -18778728.93 -18778728.80 -18778728.66 0.0528 0.0430
 Jupiter -56120-03-02 15:06 J -18776345.90 -18776345.87 -18776345.84 0.0501 0.0496
 Jupiter -56115-08-28 09:35 J -18774341.33 -18774341.10 -18774340.88 0.0527 0.0028
 Saturn -56114-01-15 19:11 J -18774200.81 -18774200.70 -18774200.57 0.0269 0.0234
 Saturn -56113-01-28 01:54 J -18773823.67 -18773823.42 -18773823.17 0.0267 0.0002
 Saturn -56112-02-07 22:18 J -18773446.70 -18773446.57 -18773446.43 0.0264 0.0223
 Jupiter -56103-09-02 10:47 J -18769953.14 -18769953.05 -18769952.95 0.0525 0.0475
 Saturn -56099-07-18 10:18 J -18768538.14 -18768538.07 -18768537.99 0.0292 0.0276
 Saturn -56098-08-01 11:59 J -18768159.25 -18768159.00 -18768158.75 0.0295 0.0006
 Saturn -56097-08-14 17:16 J -18767779.79 -18767779.78 -18767779.75 0.0298 0.0297
 Uranus -56094-02-23 18:57 J -18766856.95 -18766856.71 -18766856.44 0.0144 0.0041
 Uranus -56093-02-28 15:21 J -18766487.05 -18766486.86 -18766486.66 0.0143 0.0090
 Saturn -56084-01-21 23:59 J -18763236.72 -18763236.50 -18763236.27 0.0268 0.0105
 Saturn -56083-02-03 06:28 J -18762859.44 -18762859.23 -18762859.02 0.0265 0.0128
 Neptune -56079-01-14 17:01 J -18761417.94 -18761417.79 -18761417.62 0.0089 0.0069
 Neptune -56078-01-16 22:18 J -18761050.76 -18761050.57 -18761050.37 0.0089 0.0058
 Neptune -56077-01-19 17:16 J -18760683.00 -18760682.78 -18760682.52 0.0089 0.0036
 Neptune -56076-01-20 23:59 J -18760315.74 -18760315.50 -18760315.25 0.0089 0.0024
 Neptune -56075-01-23 17:16 J -18759948.04 -18759947.78 -18759947.51 0.0089 0.0003
 Neptune -56074-01-26 03:35 J -18759580.60 -18759580.35 -18759580.10 0.0089 0.0010
 Neptune -56073-01-28 16:04 J -18759213.07 -18759212.83 -18759212.57 0.0089 0.0031
 Neptune -56072-01-30 06:57 J -18758845.43 -18758845.21 -18758844.99 0.0089 0.0044
 Neptune -56071-02-01 14:09 J -18758478.06 -18758477.91 -18758477.70 0.0088 0.0066
 Neptune -56070-02-04 08:52 J -18758110.22 -18758110.13 -18758109.99 0.0088 0.0079

Saturn -56069-07-25 21:21 J -18757572.82 -18757572.61 -18757572.39 0.0293 0.0119
 Saturn -56068-08-09 07:11 J -18757193.39 -18757193.20 -18757193.01 0.0296 0.0172
 Mars -56066-01-09 02:52 J -18756675.56 -18756675.38 -18756675.20 0.1729 0.0857
 Jupiter -56061-02-21 17:59 J -18754805.95 -18754805.75 -18754805.54 0.0498 0.0252
 Saturn -56055-01-17 11:16 J -18752649.19 -18752649.03 -18752648.87 0.0269 0.0204
 Saturn -56054-01-29 11:01 J -18752272.29 -18752272.04 -18752271.78 0.0266 0.0028
 Saturn -56053-02-10 06:42 J -18751895.27 -18751895.22 -18751895.13 0.0264 0.0252
 Uranus -56051-08-23 22:47 J -18750969.60 -18750969.55 -18750969.46 0.0135 0.0129
 Uranus -56050-08-28 00:13 J -18750600.72 -18750600.49 -18750600.24 0.0135 0.0020
 Jupiter -56049-02-26 01:11 J -18750418.68 -18750418.45 -18750418.21 0.0500 0.0073
 Uranus -56049-08-31 11:59 J -18750231.19 -18750231.00 -18750230.77 0.0136 0.0078
 Jupiter -56044-08-22 11:16 J -18748414.08 -18748414.03 -18748413.97 0.0528 0.0509
 Saturn -56040-07-19 22:18 J -18746986.69 -18746986.57 -18746986.42 0.0292 0.0245
 Saturn -56039-08-03 00:13 J -18746607.73 -18746607.49 -18746607.24 0.0295 0.0039
 Jupiter -56037-03-01 23:59 J -18746030.60 -18746030.50 -18746030.39 0.0501 0.0444
 Jupiter -56032-08-27 13:54 J -18744026.15 -18744025.92 -18744025.69 0.0527 0.0050
 Saturn -56025-01-24 13:54 J -18741685.14 -18741684.92 -18741684.69 0.0267 0.0076
 Saturn -56024-02-04 19:54 J -18741307.86 -18741307.67 -18741307.46 0.0265 0.0155
 Jupiter -56020-08-31 23:16 J -18739638.69 -18739638.53 -18739638.37 0.0526 0.0387
 Uranus -56010-02-24 07:40 J -18736175.43 -18736175.18 -18736174.92 0.0144 0.0030
 Saturn -56010-07-28 15:35 J -18736021.07 -18736020.85 -18736020.62 0.0294 0.0086
 Uranus -56009-02-29 04:18 J -18735805.51 -18735805.32 -18735805.12 0.0143 0.0088
 Saturn -56009-08-10 23:30 J -18735641.69 -18735641.52 -18735641.34 0.0296 0.0206

56TH MILLENNIUM BCE

This is a list of transits of Moon in the 56th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Neptune	-55997-07-18 19:25 J	-18731281.82	-18731281.69	-18731281.52	0.0089	0.0073		
Saturn	-55996-01-18 20:09 J	-18731097.84	-18731097.66	-18731097.45	0.0268	0.0173		
Neptune	-55996-07-21 13:11 J	-18730914.11	-18730913.95	-18730913.75	0.0089	0.0064		
Saturn	-55995-01-30 18:42 J	-18730720.96	-18730720.72	-18730720.47	0.0266	0.0057		
Neptune	-55995-07-23 17:30 J	-18730546.99	-18730546.77	-18730546.53	0.0089	0.0040		
Neptune	-55994-07-26 11:01 J	-18730179.29	-18730179.04	-18730178.79	0.0089	0.0030		
Neptune	-55993-07-27 16:47 J	-18729812.05	-18729811.80	-18729811.55	0.0089	0.0007		
Neptune	-55992-07-30 06:57 J	-18729444.47	-18729444.21	-18729443.95	0.0089	0.0003		
Neptune	-55991-08-01 17:01 J	-18729077.02	-18729076.79	-18729076.55	0.0089	0.0027		
Neptune	-55990-08-04 01:54 J	-18728709.65	-18728709.42	-18728709.17	0.0089	0.0037		
Neptune	-55989-08-05 16:04 J	-18728341.99	-18728341.83	-18728341.63	0.0089	0.0061		
Neptune	-55988-08-07 20:52 J	-18727974.76	-18727974.63	-18727974.44	0.0089	0.0070		
Mars	-55987-01-12 00:28 J	-18727817.62	-18727817.48	-18727817.34	0.1723	0.1238		
Saturn	-55981-07-21 07:40 J	-18725435.34	-18725435.18	-18725435.01	0.0292	0.0214		
Saturn	-55980-08-04 13:54 J	-18725056.15	-18725055.92	-18725055.69	0.0296	0.0072		
Jupiter	-55978-02-20 13:54 J	-18724491.10	-18724490.92	-18724490.73	0.0498	0.0311		
Uranus	-55967-08-24 08:23 J	-18720288.28	-18720288.15	-18720288.00	0.0135	0.0113		
Saturn	-55966-01-26 03:35 J	-18720133.59	-18720133.35	-18720133.11	0.0267	0.0046		
Jupiter	-55966-02-25 12:28 J	-18720103.21	-18720102.98	-18720102.75	0.0499	0.0023		
Uranus	-55966-08-28 11:01 J	-18719919.28	-18719919.04	-18719918.80	0.0135	0.0022		
Saturn	-55965-02-07 03:49 J	-18719756.52	-18719756.34	-18719756.15	0.0265	0.0180		
Uranus	-55965-08-31 22:04 J	-18719549.77	-18719549.58	-18719549.36	0.0136	0.0084		
Mars	-55962-07-13 19:25 J	-18718503.75	-18718503.69	-18718503.64	0.1806	0.1708		
Jupiter	-55954-03-01 21:49 J	-18715715.74	-18715715.59	-18715715.43	0.0500	0.0388		
Saturn	-55951-07-30 02:09 J	-18714469.66	-18714469.41	-18714469.17	0.0294	0.0055		
Saturn	-55950-08-13 06:42 J	-18714090.36	-18714090.22	-18714090.06	0.0297	0.0234		

Jupiter -55949-08-26 05:45 J -18713711.49 -18713711.26 -18713711.03 0.0528 0.0128
 Saturn -55937-01-21 01:25 J -18709546.65 -18709546.44 -18709546.23 0.0268 0.0142
 Jupiter -55937-08-31 10:47 J -18709323.21 -18709323.05 -18709322.87 0.0526 0.0336
 Saturn -55936-02-01 04:04 J -18709169.55 -18709169.33 -18709169.10 0.0266 0.0085
 Uranus -55926-02-24 16:47 J -18705494.06 -18705493.80 -18705493.54 0.0144 0.0026
 Uranus -55925-02-29 13:54 J -18705124.07 -18705123.92 -18705123.73 0.0143 0.0103
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 Neptune -55908-01-29 10:33 J -18698945.29 -18698945.06 -18698944.83 0.0089 0.0044
 Saturn -55907-01-27 10:04 J -18698582.33 -18698582.08 -18698581.82 0.0266 0.0018
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 Neptune -55906-02-03 11:30 J -18698210.14 -18698210.02 -18698209.90 0.0088 0.0078
 Saturn -55906-02-08 05:59 J -18698205.40 -18698205.25 -18698205.09 0.0264 0.0207
 Neptune -55905-02-06 06:28 J -18697842.25 -18697842.23 -18697842.14 0.0088 0.0087
 Pluto -55900-12-24 08:09 J -18695694.38 -18695694.16 -18695693.91 0.0063 0.0030
 Pluto -55899-12-25 23:59 J -18695327.66 -18695327.50 -18695327.28 0.0064 0.0043
 Jupiter -55895-02-20 02:37 J -18694175.55 -18694175.39 -18694175.23 0.0498 0.0362
 Saturn -55892-07-31 04:04 J -18692918.58 -18692918.33 -18692918.08 0.0294 0.0030
 Saturn -55891-08-14 10:33 J -18692539.17 -18692539.06 -18692538.94 0.0297 0.0260
 Jupiter -55883-02-24 07:11 J -18689788.44 -18689788.20 -18689787.96 0.0499 0.0046
 Mars -55883-07-16 09:06 J -18689646.30 -18689646.12 -18689645.94 0.1813 0.0566
 Uranus -55883-08-24 17:30 J -18689606.86 -18689606.77 -18689606.63 0.0135 0.0121

Uranus -55882-08-28 21:06 J -18689237.86 -18689237.62 -18689237.37 0.0135 0.0010
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 Uranus -55842-02-24 23:59 J -18674812.76 -18674812.50 -18674812.24 0.0144 0.0024
 Uranus -55841-02-29 22:33 J -18674442.73 -18674442.56 -18674442.37 0.0143 0.0097
 Saturn -55834-07-18 23:45 J -18671746.54 -18671746.51 -18671746.47 0.0291 0.0287
 Neptune -55833-07-18 11:59 J -18671381.02 -18671381.00 -18671380.91 0.0089 0.0087
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Jupiter -55812-02-19 00:42 J -18663860.59 -18663860.47 -18663860.34 0.0498 0.0420
 Pluto -55810-06-30 07:40 J -18662999.43 -18662999.18 -18662998.91 0.0081 0.0013
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 Saturn -55643-01-15 00:42 J -18602168.50 -18602168.47 -18602168.44 0.0271 0.0269
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 Jupiter -55622-02-28 08:52 J -18594454.33 -18594454.13 -18594453.93 0.0499 0.0252
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 Saturn -55612-02-02 04:33 J -18590827.54 -18590827.31 -18590827.06 0.0266 0.0087
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 Mars -55599-07-16 23:30 J -18585914.69 -18585914.52 -18585914.34 0.1803 0.0445
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 Neptune -55586-01-15 07:11 J -18581349.29 -18581349.20 -18581349.06 0.0089 0.0080
 Neptune -55585-01-17 19:54 J -18580981.85 -18580981.67 -18580981.47 0.0089 0.0057
 Saturn -55584-01-15 15:49 J -18580617.92 -18580617.84 -18580617.73 0.0271 0.0250

Neptune -55584-01-19 04:47 J -18580614.51 -18580614.30 -18580614.04 0.0089 0.0045
 Neptune -55583-01-21 22:18 J -18580246.81 -18580246.57 -18580246.32 0.0089 0.0022
 Saturn -55583-01-28 01:54 J -18580240.66 -18580240.42 -18580240.18 0.0268 0.0015
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 Neptune -55581-01-26 23:59 J -18579511.75 -18579511.50 -18579511.23 0.0089 0.0014
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 Pluto -55561-07-01 22:47 J -18572049.68 -18572049.55 -18572049.35 0.0080 0.0063
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 Saturn -55553-02-03 20:23 J -18569276.88 -18569276.65 -18569276.41 0.0267 0.0104
 Jupiter -55551-02-23 04:47 J -18568526.52 -18568526.30 -18568526.08 0.0498 0.0183
 Uranus -55547-08-26 04:33 J -18566881.45 -18566881.31 -18566881.14 0.0135 0.0107
 Uranus -55546-08-30 13:11 J -18566512.19 -18566511.95 -18566511.71 0.0135 0.0007
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 Saturn -55539-07-24 11:16 J -18563992.18 -18563992.03 -18563991.86 0.0291 0.0217
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 Jupiter -55510-09-03 20:23 J -18553358.73 -18553358.65 -18553358.55 0.0527 0.0487
 Saturn -55509-07-31 19:40 J -18553026.92 -18553026.68 -18553026.44 0.0292 0.0068
 Saturn -55508-08-14 19:54 J -18552647.82 -18552647.67 -18552647.49 0.0295 0.0220

Uranus -55507-02-21 03:21 J -18552457.43 -18552457.36 -18552457.27 0.0144 0.0136
 Uranus -55506-02-26 01:40 J -18552087.69 -18552087.43 -18552087.16 0.0143 0.0019
 Uranus -55505-03-02 05:30 J -18551717.42 -18551717.27 -18551717.09 0.0143 0.0108
 Neptune -55504-07-19 17:30 J -18551212.83 -18551212.77 -18551212.67 0.0089 0.0084
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Saturn -55436-01-24 13:40 J -18526552.15 -18526551.93 -18526551.70 0.0270 0.0090
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 Jupiter -55290-02-26 04:18 J -18473193.54 -18473193.32 -18473193.09 0.0497 0.0099
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 Jupiter -55273-08-27 05:59 J -18466801.48 -18466801.25 -18466801.02 0.0530 0.0134
 Jupiter -55261-09-01 02:37 J -18462413.58 -18462413.39 -18462413.20 0.0528 0.0288
 Saturn -55260-01-17 09:35 J -18462275.19 -18462275.10 -18462275.00 0.0272 0.0249
 Saturn -55259-01-29 16:04 J -18461898.08 -18461897.83 -18461897.57 0.0269 0.0017
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Neptune -55089-01-25 04:33 J -18399810.55 -18399810.31 -18399810.06 0.0089 0.0013
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 Saturn -55082-02-04 06:42 J -18397243.45 -18397243.22 -18397242.99 0.0268 0.0072
 Saturn -55068-07-24 23:59 J -18391958.60 -18391958.50 -18391958.39 0.0290 0.0258
 Saturn -55067-08-08 02:23 J -18391579.64 -18391579.40 -18391579.16 0.0293 0.0028
 Pluto -55064-07-05 09:49 J -18390517.28 -18390517.09 -18390516.87 0.0080 0.0048
 Saturn -55054-01-17 23:59 J -18387033.53 -18387033.50 -18387033.43 0.0272 0.0266
 Saturn -55053-01-30 05:16 J -18386656.53 -18386656.28 -18386656.02 0.0269 0.0030
 Jupiter -55053-02-19 18:42 J -18386635.76 -18386635.72 -18386635.67 0.0496 0.0485
 Saturn -55052-02-10 07:11 J -18386279.36 -18386279.20 -18386279.02 0.0266 0.0190
 Uranus -55043-08-28 04:33 J -18382793.49 -18382793.31 -18382793.11 0.0135 0.0090
 Uranus -55042-09-01 17:59 J -18382423.99 -18382423.75 -18382423.50 0.0135 0.0026
 Jupiter -55041-02-24 13:54 J -18382248.15 -18382247.92 -18382247.68 0.0497 0.0083
 Uranus -55041-09-04 17:45 J -18382054.87 -18382054.76 -18382054.61 0.0136 0.0115
 Saturn -55038-08-02 04:47 J -18380993.52 -18380993.30 -18380993.07 0.0292 0.0100
 Saturn -55037-08-15 10:18 J -18380614.25 -18380614.07 -18380613.90 0.0295 0.0195
 Mars -55031-07-17 01:40 J -18378452.62 -18378452.43 -18378452.24 0.1783 0.0188
 Jupiter -55029-02-28 15:49 J -18377861.05 -18377860.84 -18377860.63 0.0498 0.0250
 Saturn -55024-01-24 09:35 J -18376069.31 -18376069.10 -18376068.89 0.0270 0.0129
 Jupiter -55024-08-24 23:45 J -18375856.67 -18375856.51 -18375856.36 0.0531 0.0386
 Saturn -55023-02-05 19:11 J -18375691.93 -18375691.70 -18375691.47 0.0267 0.0099
 Jupiter -55012-08-30 05:01 J -18371468.51 -18371468.29 -18371468.06 0.0529 0.0060

Neptune -55010-07-23 00:57 J -18370776.61 -18370776.46 -18370776.26 0.0089 0.0065

Neptune -55009-07-24 18:57 J -18370408.90 -18370408.71 -18370408.49 0.0089 0.0055

Saturn -55009-07-26 11:16 J -18370407.16 -18370407.03 -18370406.87 0.0290 0.0231

Neptune -55008-07-27 01:11 J -18370041.69 -18370041.45 -18370041.21 0.0089 0.0028

Saturn -55008-08-09 10:33 J -18370028.30 -18370028.06 -18370027.81 0.0294 0.0057

Neptune -55007-07-29 15:35 J -18369674.10 -18369673.85 -18369673.58 0.0089 0.0018

Neptune -55006-08-01 00:57 J -18369306.70 -18369306.46 -18369306.21 0.0089 0.0009

Neptune -55005-08-02 10:04 J -18368939.32 -18368939.08 -18368938.80 0.0089 0.0019

Neptune -55004-08-05 00:28 J -18368571.68 -18368571.48 -18368571.25 0.0089 0.0045

Uranus -55003-02-23 02:52 J -18368369.51 -18368369.38 -18368369.23 0.0144 0.0120

Neptune -55003-08-07 06:13 J -18368204.44 -18368204.24 -18368204.03 0.0089 0.0054

Uranus -55002-02-27 21:49 J -18367999.84 -18367999.59 -18367999.33 0.0143 0.0008

Neptune -55002-08-09 23:30 J -18367836.60 -18367836.52 -18367836.39 0.0089 0.0081

Uranus -55001-03-04 06:13 J -18367629.34 -18367629.24 -18367629.12 0.0143 0.0128

55TH MILLENNIUM BCE

This is a list of transits of Moon in the 55th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-54995-01-19 05:16 J	-18365482.39	-18365482.28	-18365482.14	0.0272	0.0237		
Saturn	-54994-01-31 10:47 J	-18365105.30	-18365105.05	-18365104.80	0.0269	0.0003		
Saturn	-54993-02-12 17:59 J	-18364727.88	-18364727.75	-18364727.60	0.0266	0.0213		
Saturn	-54979-08-03 15:06 J	-18359442.10	-18359441.87	-18359441.64	0.0292	0.0072		
Saturn	-54978-08-17 22:04 J	-18359062.72	-18359062.58	-18359062.41	0.0295	0.0224		

Saturn -54965-01-26 20:09 J -18354517.88 -18354517.66 -18354517.43 0.0270 0.0101
 Saturn -54964-02-06 23:45 J -18354140.74 -18354140.51 -18354140.28 0.0267 0.0122
 Uranus -54959-08-28 12:57 J -18352112.15 -18352111.96 -18352111.73 0.0135 0.0074
 Jupiter -54958-02-23 07:54 J -18351933.40 -18351933.17 -18351932.94 0.0496 0.0151
 Uranus -54958-09-02 02:52 J -18351742.63 -18351742.38 -18351742.13 0.0135 0.0015
 Uranus -54957-09-05 02:52 J -18351373.43 -18351373.38 -18351373.30 0.0136 0.0131
 Mars -54952-07-20 03:21 J -18349594.49 -18349594.36 -18349594.21 0.1790 0.1322
 Saturn -54950-07-28 12:57 J -18348856.12 -18348855.96 -18348855.77 0.0290 0.0206
 Saturn -54949-08-10 11:01 J -18348477.27 -18348477.04 -18348476.79 0.0294 0.0083
 Jupiter -54946-02-28 04:04 J -18347545.53 -18347545.33 -18347545.11 0.0498 0.0199
 Jupiter -54941-08-24 10:04 J -18345541.19 -18345541.08 -18345540.96 0.0531 0.0456
 Saturn -54936-01-20 06:42 J -18343931.37 -18343931.22 -18343931.06 0.0271 0.0210
 Saturn -54935-02-01 17:30 J -18343554.01 -18343553.77 -18343553.53 0.0268 0.0020
 Saturn -54934-02-14 02:23 J -18343176.51 -18343176.40 -18343176.28 0.0266 0.0233
 Mars -54930-01-10 17:30 J -18341749.90 -18341749.77 -18341749.64 0.1766 0.1232
 Neptune -54929-01-15 18:42 J -18341379.76 -18341379.72 -18341379.67 0.0089 0.0087
 Jupiter -54929-08-28 22:47 J -18341153.78 -18341153.55 -18341153.31 0.0530 0.0017
 Neptune -54928-01-17 00:42 J -18341012.59 -18341012.47 -18341012.31 0.0089 0.0074
 Neptune -54927-01-19 16:47 J -18340645.01 -18340644.80 -18340644.57 0.0089 0.0051
 Neptune -54926-01-22 03:35 J -18340277.57 -18340277.35 -18340277.11 0.0089 0.0037
 Neptune -54925-01-24 15:21 J -18339910.11 -18339909.86 -18339909.58 0.0089 0.0014
 Neptune -54924-01-26 07:11 J -18339542.45 -18339542.20 -18339541.95 0.0089 0.0001
 Neptune -54923-01-28 14:09 J -18339175.15 -18339174.91 -18339174.64 0.0089 0.0024
 Neptune -54922-01-31 08:52 J -18338807.34 -18338807.13 -18338806.88 0.0089 0.0037
 Neptune -54921-02-02 14:23 J -18338440.07 -18338439.90 -18338439.70 0.0089 0.0061
 Neptune -54920-02-04 09:21 J -18338072.22 -18338072.11 -18338071.93 0.0089 0.0074
 Saturn -54920-08-04 22:18 J -18337890.80 -18337890.57 -18337890.33 0.0292 0.0049
 Uranus -54919-02-23 12:42 J -18337688.06 -18337687.97 -18337687.84 0.0144 0.0130
 Saturn -54919-08-19 02:52 J -18337511.50 -18337511.38 -18337511.24 0.0295 0.0248
 Uranus -54918-02-28 07:54 J -18337318.42 -18337318.17 -18337317.91 0.0143 0.0013

Uranus -54917-03-04 16:18 J -18336947.91 -18336947.82 -18336947.69 0.0143 0.0128
 Jupiter -54917-09-03 01:40 J -18336765.52 -18336765.43 -18336765.33 0.0528 0.0478
 Saturn -54906-01-27 22:33 J -18332966.79 -18332966.56 -18332966.30 0.0270 0.0078
 Pluto -54906-12-31 02:09 J -18332629.56 -18332629.41 -18332629.21 0.0063 0.0046
 Saturn -54905-02-08 23:30 J -18332589.73 -18332589.52 -18332589.30 0.0267 0.0143
 Pluto -54905-12-31 11:45 J -18332263.26 -18332263.01 -18332262.77 0.0064 0.0025
 Saturn -54891-07-29 11:16 J -18327305.21 -18327305.03 -18327304.84 0.0290 0.0186
 Saturn -54890-08-12 13:11 J -18326926.17 -18326925.95 -18326925.72 0.0294 0.0107
 Saturn -54877-01-22 10:33 J -18322380.22 -18322380.06 -18322379.88 0.0271 0.0190
 Saturn -54876-02-02 23:30 J -18322002.76 -18322002.52 -18322002.28 0.0268 0.0041
 Saturn -54875-02-15 03:21 J -18321625.44 -18321625.36 -18321625.28 0.0266 0.0252
 Jupiter -54875-02-22 23:30 J -18321617.73 -18321617.52 -18321617.31 0.0496 0.0186
 Uranus -54875-08-28 21:35 J -18321430.79 -18321430.60 -18321430.40 0.0135 0.0084
 Uranus -54874-09-02 11:16 J -18321061.26 -18321061.03 -18321060.77 0.0135 0.0033
 Uranus -54873-09-05 11:30 J -18320692.12 -18320692.02 -18320691.90 0.0136 0.0121
 Jupiter -54863-02-27 10:04 J -18317230.31 -18317230.08 -18317229.84 0.0497 0.0155
 Saturn -54861-08-05 20:52 J -18316339.88 -18316339.63 -18316339.38 0.0292 0.0027
 Saturn -54860-08-19 21:49 J -18315960.67 -18315960.59 -18315960.48 0.0295 0.0272
 Jupiter -54858-08-24 07:11 J -18315226.22 -18315226.20 -18315226.17 0.0531 0.0527
 Mars -54851-01-13 10:18 J -18312892.26 -18312892.07 -18312891.87 0.1759 0.0405
 Jupiter -54851-03-03 20:09 J -18312842.67 -18312842.66 -18312842.64 0.0498 0.0497
 Saturn -54847-01-28 18:13 J -18311415.98 -18311415.74 -18311415.48 0.0270 0.0059
 Saturn -54846-02-09 23:59 J -18311038.68 -18311038.50 -18311038.30 0.0267 0.0163
 Neptune -54846-07-22 19:11 J -18310875.80 -18310875.70 -18310875.55 0.0089 0.0078
 Jupiter -54846-08-29 13:25 J -18310838.16 -18310837.94 -18310837.71 0.0530 0.0049
 Neptune -54845-07-24 01:11 J -18310508.61 -18310508.45 -18310508.23 0.0089 0.0057
 Neptune -54844-07-26 15:49 J -18310141.08 -18310140.84 -18310140.60 0.0089 0.0040
 Neptune -54843-07-29 01:54 J -18309773.65 -18309773.42 -18309773.16 0.0089 0.0020
 Neptune -54842-07-31 11:30 J -18309406.28 -18309406.02 -18309405.76 0.0089 0.0004
 Neptune -54841-08-02 02:37 J -18309038.63 -18309038.39 -18309038.14 0.0089 0.0017

Neptune -54840-08-04 07:25 J -18308671.42 -18308671.19 -18308670.94 0.0089 0.0033
 Neptune -54839-08-07 00:57 J -18308303.64 -18308303.46 -18308303.25 0.0089 0.0055
 Neptune -54838-08-09 04:47 J -18307936.44 -18307936.30 -18307936.13 0.0089 0.0070
 Uranus -54835-02-23 23:45 J -18307006.67 -18307006.51 -18307006.33 0.0144 0.0108
 Uranus -54834-02-28 19:11 J -18306636.95 -18306636.70 -18306636.44 0.0143 0.0006
 Jupiter -54834-09-03 11:45 J -18306450.13 -18306450.01 -18306449.87 0.0529 0.0445
 Uranus -54833-03-05 03:35 J -18306266.39 -18306266.35 -18306266.30 0.0143 0.0140
 Saturn -54832-07-30 11:30 J -18305754.21 -18305754.02 -18305753.82 0.0290 0.0166
 Saturn -54831-08-13 16:18 J -18305375.02 -18305374.82 -18305374.60 0.0294 0.0130
 Saturn -54818-01-23 14:09 J -18300829.09 -18300828.91 -18300828.72 0.0271 0.0172
 Saturn -54817-02-04 23:01 J -18300451.79 -18300451.54 -18300451.29 0.0268 0.0058
 Pluto -54816-07-05 13:54 J -18299935.12 -18299934.92 -18299934.70 0.0081 0.0044
 Saturn -54802-08-07 13:25 J -18294789.19 -18294788.94 -18294788.69 0.0292 0.0006
 Saturn -54801-08-20 16:04 J -18294409.83 -18294409.83 -18294409.80 0.0295 0.0295
 Jupiter -54792-02-22 02:23 J -18291302.61 -18291302.40 -18291302.18 0.0496 0.0235
 Uranus -54791-08-29 05:45 J -18290749.46 -18290749.26 -18290749.04 0.0135 0.0069
 Uranus -54790-09-02 19:11 J -18290379.94 -18290379.70 -18290379.44 0.0135 0.0021
 Saturn -54788-01-29 16:33 J -18289865.04 -18289864.81 -18289864.57 0.0270 0.0044
 Saturn -54787-02-11 02:37 J -18289487.55 -18289487.39 -18289487.20 0.0267 0.0178
 Jupiter -54780-02-26 16:18 J -18286915.04 -18286914.82 -18286914.59 0.0497 0.0104
 Saturn -54773-07-31 13:25 J -18284203.14 -18284202.94 -18284202.73 0.0290 0.0147
 Saturn -54772-08-14 15:21 J -18283824.06 -18283823.86 -18283823.64 0.0294 0.0150
 Jupiter -54768-03-03 10:47 J -18282527.12 -18282527.05 -18282526.96 0.0498 0.0470
 Neptune -54764-01-16 15:21 J -18281111.93 -18281111.86 -18281111.74 0.0089 0.0083
 Neptune -54763-01-19 02:37 J -18280744.56 -18280744.39 -18280744.18 0.0089 0.0057
 Jupiter -54763-08-28 22:04 J -18280522.82 -18280522.58 -18280522.34 0.0530 0.0082
 Neptune -54762-01-21 13:11 J -18280377.17 -18280376.95 -18280376.71 0.0089 0.0046
 Neptune -54761-01-24 05:01 J -18280009.52 -18280009.29 -18280009.03 0.0089 0.0020
 Neptune -54760-01-25 11:59 J -18279642.26 -18279642.00 -18279641.73 0.0089 0.0009
 Saturn -54759-01-24 10:47 J -18279278.26 -18279278.05 -18279277.85 0.0271 0.0157

Neptune -54759-01-28 06:57 J -18279274.45 -18279274.21 -18279273.94 0.0089 0.0019
 Neptune -54758-01-30 12:28 J -18278907.21 -18278906.98 -18278906.73 0.0089 0.0030
 Saturn -54758-02-05 15:06 J -18278901.12 -18278900.87 -18278900.62 0.0268 0.0069
 Neptune -54757-02-02 07:40 J -18278539.37 -18278539.18 -18278538.96 0.0089 0.0056
 Neptune -54756-02-03 14:52 J -18278172.03 -18278171.88 -18278171.70 0.0089 0.0068
 Uranus -54751-02-24 07:54 J -18276325.30 -18276325.17 -18276325.01 0.0144 0.0119
 Jupiter -54751-09-02 16:04 J -18276134.98 -18276134.83 -18276134.68 0.0529 0.0394
 Uranus -54750-03-01 04:04 J -18275955.58 -18275955.33 -18275955.08 0.0144 0.0023
 Uranus -54749-03-05 11:59 J -18275585.05 -18275585.00 -18275584.92 0.0143 0.0138
 Mars -54747-07-17 18:57 J -18274720.89 -18274720.71 -18274720.54 0.1774 0.0270
 Saturn -54744-07-25 10:04 J -18273617.14 -18273617.08 -18273617.01 0.0289 0.0277
 Saturn -54743-08-08 08:09 J -18273238.40 -18273238.16 -18273237.92 0.0292 0.0013
 Saturn -54730-01-19 01:54 J -18268691.47 -18268691.42 -18268691.36 0.0273 0.0264
 Saturn -54729-01-31 18:13 J -18268313.98 -18268313.74 -18268313.50 0.0270 0.0032
 Saturn -54728-02-12 02:23 J -18267936.57 -18267936.40 -18267936.21 0.0267 0.0189
 Saturn -54714-08-02 11:59 J -18262652.22 -18262652.00 -18262651.78 0.0290 0.0130
 Saturn -54713-08-15 09:06 J -18262273.33 -18262273.12 -18262272.92 0.0293 0.0171
 Jupiter -54709-02-22 14:09 J -18260987.09 -18260986.91 -18260986.71 0.0496 0.0268
 Uranus -54707-08-29 13:25 J -18260068.12 -18260067.94 -18260067.72 0.0135 0.0079
 Uranus -54706-09-03 03:06 J -18259698.61 -18259698.37 -18259698.12 0.0135 0.0037
 Uranus -54705-09-06 03:21 J -18259329.42 -18259329.36 -18259329.25 0.0136 0.0127
 Saturn -54700-01-25 01:54 J -18257727.62 -18257727.42 -18257727.19 0.0272 0.0146
 Saturn -54699-02-06 09:49 J -18257350.32 -18257350.09 -18257349.86 0.0268 0.0080
 Jupiter -54697-02-27 08:23 J -18256599.39 -18256599.15 -18256598.91 0.0497 0.0072
 Jupiter -54685-03-02 16:33 J -18252211.91 -18252211.81 -18252211.71 0.0498 0.0446
 Saturn -54685-07-26 07:25 J -18252066.29 -18252066.19 -18252066.09 0.0288 0.0261
 Saturn -54684-08-09 08:52 J -18251687.36 -18251687.13 -18251686.90 0.0292 0.0033
 Neptune -54682-07-22 02:23 J -18250975.42 -18250975.40 -18250975.37 0.0089 0.0088
 Neptune -54681-07-23 16:04 J -18250608.01 -18250607.83 -18250607.62 0.0089 0.0061
 Neptune -54680-07-26 03:06 J -18250240.55 -18250240.37 -18250240.14 0.0089 0.0052

Jupiter -54680-08-28 02:52 J -18250207.59 -18250207.38 -18250207.16 0.0531 0.0130
 Neptune -54679-07-28 11:59 J -18249873.25 -18249873.00 -18249872.74 0.0089 0.0024
 Neptune -54678-07-31 03:21 J -18249505.60 -18249505.36 -18249505.10 0.0089 0.0014
 Neptune -54677-08-01 08:09 J -18249138.40 -18249138.16 -18249137.89 0.0089 0.0015
 Neptune -54676-08-04 02:09 J -18248770.65 -18248770.41 -18248770.16 0.0089 0.0024
 Neptune -54675-08-06 05:59 J -18248403.44 -18248403.25 -18248403.03 0.0089 0.0051
 Neptune -54674-08-08 22:33 J -18248035.73 -18248035.56 -18248035.35 0.0089 0.0061
 Neptune -54673-08-10 05:16 J -18247668.29 -18247668.28 -18247668.22 0.0089 0.0088
 Saturn -54671-01-20 01:40 J -18247140.52 -18247140.43 -18247140.34 0.0273 0.0252
 Saturn -54670-02-01 15:49 J -18246763.09 -18246762.84 -18246762.59 0.0270 0.0020
 Saturn -54669-02-13 18:42 J -18246385.88 -18246385.72 -18246385.53 0.0267 0.0199
 Mars -54668-07-20 04:18 J -18245863.47 -18245863.32 -18245863.17 0.1780 0.1019
 Jupiter -54668-09-02 08:09 J -18245819.33 -18245819.16 -18245818.99 0.0530 0.0363
 Uranus -54667-02-24 14:37 J -18245644.06 -18245643.89 -18245643.69 0.0144 0.0103
 Uranus -54666-03-01 11:59 J -18245274.25 -18245274.00 -18245273.75 0.0144 0.0011
 Pluto -54656-01-01 15:35 J -18241680.09 -18241679.85 -18241679.59 0.0063 0.0012
 Pluto -54655-01-02 20:09 J -18241313.73 -18241313.66 -18241313.53 0.0064 0.0059
 Saturn -54655-08-03 06:13 J -18241101.47 -18241101.24 -18241101.00 0.0290 0.0109
 Saturn -54654-08-17 03:35 J -18240722.52 -18240722.35 -18240722.15 0.0293 0.0192
 Mars -54646-01-11 13:25 J -18238018.06 -18238017.94 -18238017.81 0.1775 0.1267
 Saturn -54641-01-26 20:52 J -18236176.84 -18236176.63 -18236176.41 0.0272 0.0131
 Saturn -54640-02-07 10:18 J -18235799.28 -18235799.07 -18235798.83 0.0269 0.0093
 Jupiter -54626-02-22 05:45 J -18230671.45 -18230671.26 -18230671.07 0.0495 0.0301
 Saturn -54626-07-28 11:01 J -18230515.17 -18230515.04 -18230514.91 0.0288 0.0240
 Saturn -54625-08-10 10:47 J -18230136.28 -18230136.05 -18230135.81 0.0292 0.0053
 Uranus -54623-08-29 22:18 J -18229386.77 -18229386.57 -18229386.34 0.0135 0.0065
 Uranus -54622-09-03 11:01 J -18229017.29 -18229017.04 -18229016.79 0.0135 0.0026
 Jupiter -54614-02-26 10:04 J -18226284.31 -18226284.08 -18226283.85 0.0496 0.0026
 Saturn -54612-01-21 00:28 J -18225589.59 -18225589.48 -18225589.35 0.0273 0.0236
 Saturn -54611-02-02 09:06 J -18225212.37 -18225212.12 -18225211.86 0.0270 0.0008

Saturn -54610-02-14 12:42 J -18224835.12 -18224834.97 -18224834.81 0.0268 0.0210
 Jupiter -54602-03-03 06:57 J -18221896.33 -18221896.21 -18221896.07 0.0497 0.0412
 Neptune -54600-01-16 01:11 J -18221211.48 -18221211.45 -18221211.36 0.0089 0.0086
 Neptune -54599-01-18 11:16 J -18220844.17 -18220844.03 -18220843.85 0.0089 0.0070
 Neptune -54598-01-21 04:04 J -18220476.52 -18220476.33 -18220476.10 0.0089 0.0049
 Neptune -54597-01-23 10:18 J -18220109.30 -18220109.07 -18220108.81 0.0089 0.0033
 Jupiter -54597-08-27 17:30 J -18219891.99 -18219891.77 -18219891.54 0.0531 0.0151
 Neptune -54596-01-25 05:30 J -18219741.52 -18219741.27 -18219741.00 0.0089 0.0010
 Saturn -54596-08-04 05:16 J -18219550.51 -18219550.28 -18219550.04 0.0290 0.0086
 Neptune -54595-01-27 11:01 J -18219374.30 -18219374.04 -18219373.78 0.0089 0.0006
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 Neptune -54594-01-30 05:16 J -18219006.52 -18219006.28 -18219006.02 0.0089 0.0030
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 Jupiter -54585-09-01 10:18 J -18215504.25 -18215504.07 -18215503.88 0.0530 0.0323
 Uranus -54583-02-24 20:23 J -18214962.81 -18214962.65 -18214962.50 0.0144 0.0117
 Saturn -54582-01-27 21:49 J -18214625.80 -18214625.59 -18214625.37 0.0272 0.0119
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 Mars -54567-01-13 22:04 J -18209160.76 -18209160.58 -18209160.40 0.1768 0.0221
 Pluto -54567-07-08 12:57 J -18208985.17 -18208984.96 -18208984.72 0.0080 0.0035
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 Saturn -54552-02-03 04:18 J -18203661.57 -18203661.32 -18203661.07 0.0270 0.0006
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 Saturn -54536-08-19 16:04 J -18197619.96 -18197619.83 -18197619.70 0.0293 0.0243
 Jupiter -54531-02-26 02:09 J -18195968.65 -18195968.41 -18195968.18 0.0496 0.0016
 Saturn -54523-01-29 01:40 J -18193074.65 -18193074.43 -18193074.20 0.0272 0.0102
 Saturn -54522-02-10 09:21 J -18192697.33 -18192697.11 -18192696.87 0.0269 0.0123
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 Jupiter -54514-08-27 14:37 J -18189577.10 -18189576.89 -18189576.68 0.0531 0.0211
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 Saturn -54508-07-30 18:13 J -18187412.93 -18187412.74 -18187412.54 0.0289 0.0187
 Saturn -54507-08-13 12:13 J -18187034.21 -18187033.99 -18187033.75 0.0292 0.0110
 Jupiter -54502-09-01 20:09 J -18185188.85 -18185188.66 -18185188.46 0.0530 0.0257
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 Saturn -54494-01-23 16:18 J -18182487.97 -18182487.82 -18182487.66 0.0273 0.0209
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 Saturn -54464-01-30 02:52 J -18171523.62 -18171523.38 -18171523.13 0.0272 0.0085
 Saturn -54463-02-11 07:54 J -18171146.37 -18171146.17 -18171145.94 0.0269 0.0140

Mars -54463-07-18 12:28 J -18170989.17 -18170988.98 -18170988.78 0.1765 0.0326
 Jupiter -54460-02-20 20:52 J -18170040.76 -18170040.63 -18170040.50 0.0495 0.0404
 Uranus -54455-08-30 17:30 J -18168023.98 -18168023.77 -18168023.54 0.0135 0.0059
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 Jupiter -54448-02-25 02:37 J -18165653.63 -18165653.39 -18165653.15 0.0496 0.0061
 Saturn -54448-08-14 22:33 J -18165482.76 -18165482.56 -18165482.34 0.0292 0.0143
 Jupiter -54436-03-01 19:25 J -18161265.86 -18161265.69 -18161265.52 0.0496 0.0336
 Neptune -54435-01-18 01:40 J -18160943.50 -18160943.43 -18160943.30 0.0089 0.0082
 Saturn -54435-01-24 22:33 J -18160936.72 -18160936.56 -18160936.38 0.0273 0.0191
 Neptune -54434-01-20 07:54 J -18160576.37 -18160576.17 -18160575.95 0.0089 0.0053
 Saturn -54434-02-06 15:06 J -18160559.10 -18160558.87 -18160558.63 0.0270 0.0042
 Neptune -54433-01-23 02:52 J -18160208.59 -18160208.38 -18160208.14 0.0089 0.0043
 Saturn -54433-02-18 23:16 J -18160181.56 -18160181.53 -18160181.48 0.0268 0.0264
 Neptune -54432-01-24 08:37 J -18159841.39 -18159841.14 -18159840.89 0.0089 0.0015
 Neptune -54431-01-27 02:37 J -18159473.65 -18159473.39 -18159473.12 0.0089 0.0004
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 Neptune -54427-02-04 23:30 J -18158003.66 -18158003.52 -18158003.36 0.0089 0.0073
 Saturn -54420-07-26 20:37 J -18155274.65 -18155274.64 -18155274.62 0.0286 0.0286
 Saturn -54419-08-09 14:52 J -18154896.13 -18154895.88 -18154895.63 0.0290 0.0006
 Jupiter -54419-08-31 15:21 J -18154874.08 -18154873.86 -18154873.64 0.0531 0.0185
 Uranus -54415-02-25 12:42 J -18153600.14 -18153599.97 -18153599.80 0.0144 0.0109
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 Pluto -54408-01-02 05:59 J -18151097.33 -18151097.25 -18151097.10 0.0063 0.0057
 Pluto -54407-01-04 01:11 J -18150730.71 -18150730.45 -18150730.19 0.0064 0.0014
 Saturn -54405-02-01 04:33 J -18149972.55 -18149972.31 -18149972.06 0.0271 0.0066
 Saturn -54404-02-12 13:40 J -18149595.11 -18149594.93 -18149594.73 0.0269 0.0162

Saturn -54390-08-03 15:06 J -18144310.08 -18144309.87 -18144309.66 0.0289 0.0126
 Saturn -54389-08-16 16:33 J -18143930.99 -18143930.81 -18143930.62 0.0292 0.0177
 Mars -54384-07-21 02:23 J -18142131.54 -18142131.40 -18142131.26 0.1772 0.1100
 Jupiter -54377-02-20 18:57 J -18139725.80 -18139725.71 -18139725.61 0.0494 0.0454
 Saturn -54376-01-26 10:18 J -18139385.26 -18139385.07 -18139384.88 0.0273 0.0169
 Saturn -54375-02-07 23:01 J -18139007.78 -18139007.54 -18139007.29 0.0270 0.0063
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 Uranus -54370-09-04 13:54 J -18136973.16 -18136972.92 -18136972.68 0.0135 0.0050
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 Mars -54362-01-11 15:06 J -18134286.98 -18134286.87 -18134286.75 0.1785 0.1503
 Saturn -54361-07-28 11:45 J -18133723.12 -18133723.01 -18133722.89 0.0287 0.0252
 Saturn -54360-08-11 02:52 J -18133344.63 -18133344.38 -18133344.13 0.0290 0.0043
 Jupiter -54353-02-29 18:42 J -18130950.92 -18130950.72 -18130950.51 0.0496 0.0277
 Neptune -54353-07-22 10:18 J -18130807.12 -18130807.07 -18130806.99 0.0089 0.0086
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 Neptune -54351-07-27 07:11 J -18130072.39 -18130072.20 -18130071.96 0.0089 0.0049
 Neptune -54350-07-30 01:25 J -18129704.68 -18129704.44 -18129704.17 0.0089 0.0021
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 Jupiter -54348-08-25 16:47 J -18128946.98 -18128946.80 -18128946.63 0.0532 0.0357
 Saturn -54347-01-21 00:42 J -18128798.49 -18128798.47 -18128798.42 0.0274 0.0272
 Neptune -54347-08-05 06:42 J -18128602.46 -18128602.22 -18128601.99 0.0089 0.0029
 Saturn -54346-02-02 13:54 J -18128421.15 -18128420.92 -18128420.67 0.0271 0.0042
 Neptune -54346-08-07 17:59 J -18128234.93 -18128234.75 -18128234.53 0.0089 0.0057
 Saturn -54345-02-15 02:52 J -18128043.55 -18128043.38 -18128043.21 0.0268 0.0186
 Neptune -54345-08-09 07:11 J -18127867.35 -18127867.20 -18127867.03 0.0089 0.0067
 Jupiter -54336-08-30 18:57 J -18124558.93 -18124558.71 -18124558.50 0.0531 0.0101
 Uranus -54331-02-26 00:28 J -18122918.67 -18122918.48 -18122918.26 0.0144 0.0089
 Saturn -54331-08-05 10:33 J -18122758.28 -18122758.06 -18122757.84 0.0290 0.0091
 Uranus -54330-03-03 02:23 J -18122548.64 -18122548.40 -18122548.15 0.0144 0.0027

Saturn -54330-08-19 11:30 J -18122379.18 -18122379.02 -18122378.85 0.0293 0.0213
 Jupiter -54324-09-04 16:04 J -18120170.90 -18120170.83 -18120170.75 0.0530 0.0500
 Pluto -54319-07-08 22:04 J -18118402.74 -18118402.58 -18118402.36 0.0081 0.0058
 Saturn -54317-01-28 21:06 J -18117833.83 -18117833.62 -18117833.40 0.0272 0.0141
 Saturn -54316-02-09 04:18 J -18117456.56 -18117456.32 -18117456.07 0.0269 0.0087
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 Saturn -54287-02-04 05:59 J -18106869.49 -18106869.25 -18106869.02 0.0271 0.0013
 Uranus -54287-08-31 14:09 J -18106661.13 -18106660.91 -18106660.68 0.0135 0.0051
 Saturn -54286-02-16 17:01 J -18106491.94 -18106491.79 -18106491.64 0.0268 0.0212
 Uranus -54286-09-04 22:47 J -18106291.79 -18106291.55 -18106291.30 0.0135 0.0043
 Mars -54283-01-14 15:35 J -18105429.04 -18105428.85 -18105428.66 0.1777 0.0108
 Jupiter -54282-02-24 09:06 J -18105023.35 -18105023.12 -18105022.89 0.0495 0.0181
 Saturn -54272-08-07 06:13 J -18101206.48 -18101206.24 -18101206.00 0.0290 0.0054
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 Saturn -54271-08-21 03:49 J -18100827.47 -18100827.34 -18100827.21 0.0293 0.0248
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 Jupiter -54265-08-24 17:30 J -18098631.88 -18098631.77 -18098631.65 0.0533 0.0453
 Neptune -54264-02-01 18:57 J -18098470.92 -18098470.71 -18098470.48 0.0089 0.0049
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 Neptune -54262-02-06 18:13 J -18097735.76 -18097735.74 -18097735.65 0.0089 0.0087
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Jupiter -54253-08-29 11:16 J -18094244.27 -18094244.03 -18094243.79 0.0532 0.0011
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 Uranus -54246-03-03 14:23 J -18091867.13 -18091866.90 -18091866.67 0.0144 0.0049
 Saturn -54243-08-01 14:37 J -18090620.08 -18090619.89 -18090619.70 0.0288 0.0178
 Saturn -54242-08-15 13:11 J -18090241.16 -18090240.95 -18090240.73 0.0291 0.0120
 Jupiter -54241-09-03 07:40 J -18089856.32 -18089856.18 -18089856.03 0.0531 0.0406
 Saturn -54229-01-25 06:28 J -18085695.38 -18085695.23 -18085695.08 0.0273 0.0210
 Saturn -54228-02-05 22:04 J -18085317.82 -18085317.58 -18085317.33 0.0270 0.0019
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 Uranus -54202-09-05 07:25 J -18075610.42 -18075610.19 -18075609.95 0.0135 0.0058
 Saturn -54199-01-31 15:21 J -18074731.09 -18074730.86 -18074730.61 0.0271 0.0083
 Jupiter -54199-02-23 11:16 J -18074708.22 -18074708.03 -18074707.82 0.0494 0.0236
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 Neptune -54188-07-24 05:45 J -18070539.40 -18070539.26 -18070539.10 0.0089 0.0072
 Jupiter -54187-02-28 03:21 J -18070320.58 -18070320.36 -18070320.13 0.0495 0.0175
 Neptune -54187-07-27 00:13 J -18070171.70 -18070171.49 -18070171.28 0.0089 0.0052
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 Saturn -54184-08-03 08:37 J -18069068.34 -18069068.14 -18069067.93 0.0289 0.0140
 Neptune -54183-08-04 16:33 J -18068702.06 -18068701.81 -18068701.55 0.0089 0.0026
 Saturn -54183-08-17 10:04 J -18068689.27 -18068689.08 -18068688.88 0.0292 0.0160
 Neptune -54182-08-07 05:59 J -18068334.45 -18068334.25 -18068334.02 0.0089 0.0044
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 Neptune -54180-08-11 05:16 J -18067599.35 -18067599.28 -18067599.17 0.0089 0.0083
 Mars -54179-07-18 12:42 J -18067258.16 -18067257.97 -18067257.79 0.1755 0.0633
 Saturn -54170-01-26 23:59 J -18064143.68 -18064143.50 -18064143.31 0.0273 0.0179

Jupiter -54170-08-29 10:33 J -18063929.27 -18063929.06 -18063928.83 0.0532 0.0090
 Saturn -54169-02-08 10:04 J -18063766.33 -18063766.08 -18063765.83 0.0270 0.0051
 Uranus -54163-02-26 22:04 J -18061555.80 -18061555.58 -18061555.34 0.0144 0.0076
 Uranus -54162-03-04 02:23 J -18061185.64 -18061185.40 -18061185.16 0.0144 0.0041
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 Pluto -54158-01-06 08:37 J -18059781.29 -18059781.14 -18059780.94 0.0064 0.0048
 Jupiter -54158-09-03 15:21 J -18059541.04 -18059540.86 -18059540.67 0.0531 0.0330
 Saturn -54155-07-28 13:54 J -18058481.99 -18058481.92 -18058481.82 0.0287 0.0270
 Saturn -54154-08-11 05:45 J -18058103.51 -18058103.26 -18058103.02 0.0291 0.0025
 Saturn -54140-02-02 04:47 J -18053179.53 -18053179.30 -18053179.06 0.0271 0.0053
 Saturn -54139-02-14 18:13 J -18052801.91 -18052801.74 -18052801.55 0.0268 0.0175
 Saturn -54125-08-05 00:42 J -18047516.69 -18047516.47 -18047516.25 0.0289 0.0104
 Saturn -54124-08-19 00:13 J -18047137.66 -18047137.49 -18047137.30 0.0292 0.0197
 Uranus -54119-09-01 10:04 J -18045298.30 -18045298.08 -18045297.84 0.0134 0.0043
 Uranus -54118-09-05 16:04 J -18044929.06 -18044928.83 -18044928.58 0.0135 0.0052
 Jupiter -54116-02-22 14:52 J -18044393.07 -18044392.88 -18044392.69 0.0494 0.0307
 Saturn -54111-01-28 11:30 J -18042592.22 -18042592.02 -18042591.80 0.0273 0.0151
 Saturn -54110-02-09 17:30 J -18042215.01 -18042214.77 -18042214.52 0.0270 0.0078
 Neptune -54106-01-19 01:40 J -18040775.50 -18040775.43 -18040775.30 0.0089 0.0081
 Neptune -54105-01-21 18:28 J -18040407.93 -18040407.73 -18040407.50 0.0089 0.0052
 Neptune -54104-01-23 04:18 J -18040040.53 -18040040.32 -18040040.08 0.0089 0.0041
 Jupiter -54104-02-26 19:40 J -18040005.91 -18040005.68 -18040005.45 0.0495 0.0100
 Neptune -54103-01-25 16:47 J -18039673.05 -18039672.80 -18039672.52 0.0089 0.0013
 Neptune -54102-01-28 07:54 J -18039305.43 -18039305.17 -18039304.92 0.0089 0.0002
 Neptune -54101-01-30 15:35 J -18038938.10 -18038937.85 -18038937.59 0.0089 0.0027
 Neptune -54100-02-01 09:49 J -18038570.32 -18038570.09 -18038569.85 0.0089 0.0038
 Mars -54100-07-21 12:57 J -18038400.12 -18038399.96 -18038399.79 0.1762 0.1025
 Neptune -54099-02-03 14:37 J -18038203.04 -18038202.89 -18038202.70 0.0089 0.0067
 Neptune -54098-02-06 10:04 J -18037835.19 -18037835.08 -18037834.94 0.0089 0.0078
 Saturn -54096-07-29 20:52 J -18036930.75 -18036930.63 -18036930.48 0.0287 0.0239

Saturn -54095-08-12 17:01 J -18036552.02 -18036551.79 -18036551.55 0.0291 0.0060
 Jupiter -54087-08-28 16:18 J -18033614.04 -18033613.82 -18033613.59 0.0532 0.0170
 Saturn -54082-01-23 01:40 J -18032005.50 -18032005.43 -18032005.36 0.0274 0.0260
 Saturn -54081-02-04 19:11 J -18031627.94 -18031627.70 -18031627.46 0.0271 0.0027
 Saturn -54080-02-16 04:47 J -18031250.45 -18031250.30 -18031250.12 0.0268 0.0201
 Uranus -54079-02-27 05:30 J -18030874.47 -18030874.27 -18030874.04 0.0144 0.0083
 Uranus -54078-03-04 10:47 J -18030504.27 -18030504.05 -18030503.81 0.0144 0.0059
 Jupiter -54075-09-02 04:18 J -18029226.52 -18029226.32 -18029226.11 0.0531 0.0236
 Pluto -54070-07-11 16:47 J -18027453.05 -18027452.80 -18027452.55 0.0080 0.0019
 Saturn -54066-08-07 09:06 J -18025965.35 -18025965.12 -18025964.88 0.0289 0.0075
 Saturn -54065-08-20 05:01 J -18025586.43 -18025586.29 -18025586.13 0.0293 0.0231
 Saturn -54052-01-29 16:33 J -18021041.03 -18021040.81 -18021040.57 0.0272 0.0127
 Saturn -54051-02-11 01:11 J -18020663.67 -18020663.45 -18020663.22 0.0269 0.0104
 Saturn -54037-07-31 03:35 J -18015379.50 -18015379.35 -18015379.18 0.0288 0.0212
 Saturn -54036-08-14 03:49 J -18015000.56 -18015000.34 -18015000.12 0.0291 0.0090
 Uranus -54035-09-01 20:23 J -18014616.87 -18014616.65 -18014616.41 0.0134 0.0045
 Uranus -54034-09-06 01:11 J -18014247.66 -18014247.45 -18014247.21 0.0135 0.0066
 Jupiter -54033-02-22 13:54 J -18014078.08 -18014077.92 -18014077.76 0.0494 0.0360
 Neptune -54024-07-23 21:49 J -18010638.65 -18010638.59 -18010638.51 0.0089 0.0085
 Saturn -54023-01-24 12:57 J -18010454.07 -18010453.96 -18010453.83 0.0274 0.0237
 Neptune -54023-07-26 03:06 J -18010271.54 -18010271.37 -18010271.16 0.0089 0.0057
 Saturn -54022-02-06 03:49 J -18010076.59 -18010076.34 -18010076.09 0.0270 0.0005
 Neptune -54022-07-28 17:45 J -18009903.97 -18009903.76 -18009903.51 0.0089 0.0046
 Saturn -54021-02-18 07:40 J -18009699.30 -18009699.18 -18009699.03 0.0268 0.0226
 Jupiter -54021-02-27 11:01 J -18009690.27 -18009690.04 -18009689.81 0.0495 0.0063
 Neptune -54021-07-30 03:35 J -18009536.59 -18009536.35 -18009536.10 0.0089 0.0018
 Neptune -54020-08-01 13:54 J -18009169.19 -18009168.92 -18009168.66 0.0089 0.0007
 Neptune -54019-08-04 04:18 J -18008801.55 -18008801.32 -18008801.07 0.0089 0.0022
 Neptune -54018-08-06 09:49 J -18008434.32 -18008434.09 -18008433.83 0.0089 0.0033
 Neptune -54017-08-08 03:49 J -18008066.52 -18008066.34 -18008066.16 0.0089 0.0061

Neptune -54016-08-10 07:25 J -18007699.31 -18007699.19 -18007699.01 0.0089 0.0072

Jupiter -54009-03-02 16:04 J -18005302.92 -18005302.83 -18005302.72 0.0496 0.0450

Saturn -54007-08-08 10:33 J -18004414.31 -18004414.06 -18004413.81 0.0290 0.0045

Saturn -54006-08-22 07:25 J -18004035.29 -18004035.19 -18004035.08 0.0293 0.0262

Jupiter -54004-08-27 09:06 J -18003299.32 -18003299.12 -18003298.92 0.0533 0.0254

54TH MILLENNIUM BCE

This is a list of transits of Moon in the 54th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-53999-01-14 08:23 J	-18001698.35	-18001698.15	-18001697.95	0.1788	0.0476		
Uranus	-53995-02-27 14:23 J	-18000193.12	-18000192.90	-18000192.66	0.0144	0.0070		
Uranus	-53994-03-04 20:52 J	-17999822.85	-17999822.63	-17999822.38	0.0144	0.0049		
Saturn	-53993-01-31 21:21 J	-17999489.82	-17999489.61	-17999489.37	0.0272	0.0105		
Saturn	-53992-02-12 11:01 J	-17999112.25	-17999112.04	-17999111.83	0.0269	0.0128		
Jupiter	-53992-09-01 19:11 J	-17998910.92	-17998910.70	-17998910.49	0.0532	0.0185		
Saturn	-53978-08-02 11:01 J	-17993828.21	-17993828.04	-17993827.85	0.0288	0.0185		
Saturn	-53977-08-15 09:49 J	-17993449.31	-17993449.09	-17993448.86	0.0291	0.0117		
Saturn	-53964-01-25 18:13 J	-17988902.89	-17988902.74	-17988902.58	0.0274	0.0214		
Saturn	-53963-02-07 03:21 J	-17988525.62	-17988525.36	-17988525.11	0.0270	0.0018		
Saturn	-53962-02-19 07:40 J	-17988148.26	-17988148.18	-17988148.07	0.0268	0.0248		
Uranus	-53951-09-02 07:40 J	-17983935.41	-17983935.18	-17983934.94	0.0134	0.0034		
Jupiter	-53950-02-22 06:28 J	-17983762.36	-17983762.23	-17983762.09	0.0494	0.0395		
Uranus	-53950-09-06 11:16 J	-17983566.25	-17983566.03	-17983565.79	0.0135	0.0062		

Saturn -53948-08-09 08:23 J -17982863.39 -17982863.15 -17982862.90 0.0290 0.0020
 Saturn -53947-08-23 10:04 J -17982484.12 -17982484.08 -17982484.03 0.0293 0.0286
 Neptune -53942-01-18 13:25 J -17980874.99 -17980874.94 -17980874.84 0.0089 0.0085
 Neptune -53941-01-21 00:28 J -17980507.64 -17980507.48 -17980507.31 0.0089 0.0066
 Neptune -53940-01-22 11:16 J -17980140.24 -17980140.03 -17980139.78 0.0089 0.0046
 Neptune -53939-01-25 02:52 J -17979772.62 -17979772.38 -17979772.14 0.0089 0.0027
 Neptune -53938-01-27 09:35 J -17979405.35 -17979405.10 -17979404.83 0.0089 0.0007
 Jupiter -53938-02-26 07:25 J -17979375.43 -17979375.19 -17979374.95 0.0494 0.0007
 Neptune -53937-01-30 04:33 J -17979037.56 -17979037.31 -17979037.05 0.0089 0.0013
 Neptune -53936-01-31 09:21 J -17978670.33 -17978670.11 -17978669.85 0.0089 0.0036
 Neptune -53935-02-03 04:33 J -17978302.50 -17978302.31 -17978302.08 0.0089 0.0053
 Saturn -53934-02-02 03:21 J -17977938.58 -17977938.36 -17977938.13 0.0272 0.0083
 Neptune -53934-02-05 11:16 J -17977935.14 -17977935.03 -17977934.88 0.0089 0.0076
 Saturn -53933-02-14 17:01 J -17977560.99 -17977560.79 -17977560.58 0.0269 0.0148
 Jupiter -53926-03-03 00:57 J -17974987.59 -17974987.46 -17974987.31 0.0495 0.0391
 Jupiter -53921-08-27 02:37 J -17972983.58 -17972983.39 -17972983.20 0.0533 0.0299
 Saturn -53919-08-03 14:37 J -17972277.09 -17972276.89 -17972276.68 0.0288 0.0159
 Saturn -53918-08-17 08:23 J -17971898.36 -17971898.15 -17971897.92 0.0291 0.0141
 Uranus -53911-02-27 23:45 J -17969511.73 -17969511.51 -17969511.28 0.0144 0.0073
 Pluto -53910-01-07 06:13 J -17969198.48 -17969198.24 -17969197.98 0.0064 0.0004
 Uranus -53910-03-05 06:42 J -17969141.42 -17969141.22 -17969140.98 0.0144 0.0068
 Jupiter -53909-08-31 20:52 J -17968595.86 -17968595.63 -17968595.40 0.0532 0.0133
 Saturn -53905-01-27 15:06 J -17967352.03 -17967351.87 -17967351.68 0.0274 0.0198
 Saturn -53904-02-08 00:28 J -17966974.72 -17966974.48 -17966974.23 0.0270 0.0037
 Mars -53895-07-19 04:33 J -17963526.47 -17963526.31 -17963526.14 0.1747 0.0729
 Saturn -53890-07-28 13:11 J -17961690.95 -17961690.95 -17961690.94 0.0286 0.0286
 Saturn -53889-08-10 09:35 J -17961312.34 -17961312.10 -17961311.86 0.0290 0.0005
 Saturn -53875-02-03 05:59 J -17956387.48 -17956387.25 -17956387.01 0.0272 0.0067
 Saturn -53874-02-15 14:23 J -17956010.10 -17956009.90 -17956009.70 0.0269 0.0167
 Uranus -53868-08-29 09:49 J -17953623.09 -17953623.09 -17953623.08 0.0134 0.0134

Jupiter -53867-02-21 05:45 J -17953447.36 -17953447.26 -17953447.14 0.0493 0.0439
 Uranus -53867-09-02 19:25 J -17953253.92 -17953253.69 -17953253.45 0.0134 0.0032
 Uranus -53866-09-06 22:18 J -17952884.78 -17952884.57 -17952884.35 0.0135 0.0076
 Saturn -53860-08-04 09:35 J -17950726.32 -17950726.10 -17950725.87 0.0287 0.0134
 Neptune -53859-07-25 14:09 J -17950371.04 -17950370.91 -17950370.72 0.0089 0.0071
 Saturn -53859-08-18 02:23 J -17950347.61 -17950347.40 -17950347.20 0.0291 0.0164
 Neptune -53858-07-28 01:25 J -17950003.63 -17950003.44 -17950003.23 0.0089 0.0052
 Neptune -53857-07-29 10:33 J -17949636.30 -17949636.06 -17949635.80 0.0089 0.0031
 Neptune -53856-08-01 01:54 J -17949268.67 -17949268.42 -17949268.17 0.0089 0.0012
 Jupiter -53855-02-25 23:01 J -17949059.77 -17949059.54 -17949059.31 0.0494 0.0020
 Neptune -53855-08-03 06:42 J -17948901.47 -17948901.22 -17948900.95 0.0089 0.0010
 Neptune -53854-08-06 00:42 J -17948533.70 -17948533.47 -17948533.22 0.0089 0.0029
 Neptune -53853-08-07 04:47 J -17948166.50 -17948166.30 -17948166.08 0.0089 0.0048
 Neptune -53852-08-09 21:35 J -17947798.74 -17947798.60 -17947798.41 0.0089 0.0068
 Neptune -53851-08-12 04:18 J -17947431.35 -17947431.32 -17947431.26 0.0089 0.0087
 Saturn -53846-01-28 09:06 J -17945801.29 -17945801.12 -17945800.93 0.0274 0.0186
 Saturn -53845-02-10 00:42 J -17945423.70 -17945423.47 -17945423.24 0.0270 0.0054
 Jupiter -53843-03-02 12:13 J -17944672.16 -17944671.99 -17944671.82 0.0496 0.0354
 Jupiter -53838-08-27 01:11 J -17942668.62 -17942668.45 -17942668.28 0.0533 0.0369
 Saturn -53831-07-29 14:37 J -17940139.97 -17940139.89 -17940139.80 0.0286 0.0265
 Saturn -53830-08-12 11:01 J -17939761.28 -17939761.04 -17939760.80 0.0290 0.0029
 Uranus -53827-02-28 12:28 J -17938830.21 -17938829.98 -17938829.72 0.0144 0.0058
 Uranus -53826-03-05 20:23 J -17938459.86 -17938459.65 -17938459.41 0.0144 0.0063
 Jupiter -53826-09-01 05:01 J -17938280.51 -17938280.29 -17938280.07 0.0532 0.0077
 Pluto -53822-07-12 09:49 J -17936870.18 -17936870.09 -17936869.94 0.0081 0.0072
 Pluto -53821-07-13 08:52 J -17936503.17 -17936503.13 -17936503.02 0.0080 0.0076
 Saturn -53816-02-04 01:40 J -17934836.67 -17934836.43 -17934836.17 0.0272 0.0053
 Mars -53816-07-21 14:09 J -17934669.08 -17934668.91 -17934668.74 0.1753 0.0812
 Saturn -53815-02-16 07:11 J -17934459.37 -17934459.20 -17934459.01 0.0269 0.0185
 Saturn -53801-08-05 04:04 J -17929175.55 -17929175.33 -17929175.10 0.0287 0.0111

Saturn -53800-08-19 00:28 J -17928796.66 -17928796.48 -17928796.29 0.0291 0.0186
 Saturn -53787-01-29 06:57 J -17924250.38 -17924250.21 -17924250.01 0.0274 0.0175
 Saturn -53786-02-11 01:11 J -17923872.68 -17923872.45 -17923872.22 0.0270 0.0069
 Jupiter -53784-02-20 22:47 J -17923131.64 -17923131.55 -17923131.47 0.0493 0.0455
 Uranus -53784-08-29 21:35 J -17922941.69 -17922941.60 -17922941.49 0.0134 0.0123
 Uranus -53783-09-03 07:54 J -17922572.41 -17922572.17 -17922571.93 0.0134 0.0022
 Uranus -53782-09-07 09:35 J -17922203.30 -17922203.10 -17922202.87 0.0135 0.0076
 Neptune -53777-01-20 05:01 J -17920607.37 -17920607.29 -17920607.15 0.0089 0.0081
 Neptune -53776-01-21 21:35 J -17920239.79 -17920239.60 -17920239.38 0.0089 0.0052
 Neptune -53775-01-24 03:49 J -17919872.56 -17919872.34 -17919872.09 0.0089 0.0041
 Neptune -53774-01-26 23:16 J -17919504.78 -17919504.53 -17919504.27 0.0089 0.0011
 Neptune -53773-01-29 04:33 J -17919137.57 -17919137.31 -17919137.05 0.0089 0.0000
 Neptune -53772-01-30 23:16 J -17918769.78 -17918769.53 -17918769.28 0.0089 0.0029
 Jupiter -53772-02-25 10:33 J -17918744.31 -17918744.06 -17918743.82 0.0494 0.0044
 Saturn -53772-07-30 15:06 J -17918588.99 -17918588.87 -17918588.74 0.0286 0.0244
 Neptune -53771-02-02 05:59 J -17918402.45 -17918402.25 -17918402.00 0.0089 0.0041
 Saturn -53771-08-13 06:57 J -17918210.46 -17918210.21 -17918209.97 0.0290 0.0049
 Neptune -53770-02-04 21:21 J -17918034.77 -17918034.61 -17918034.43 0.0089 0.0069
 Neptune -53769-02-07 08:09 J -17917667.23 -17917667.16 -17917667.03 0.0089 0.0082
 Jupiter -53760-03-01 17:16 J -17914356.96 -17914356.78 -17914356.61 0.0495 0.0312
 Saturn -53757-02-05 16:47 J -17913286.04 -17913285.80 -17913285.54 0.0272 0.0042
 Saturn -53756-02-17 03:49 J -17912908.49 -17912908.34 -17912908.17 0.0269 0.0202
 Jupiter -53755-08-26 12:57 J -17912353.08 -17912352.96 -17912352.82 0.0534 0.0429
 Uranus -53743-03-01 02:09 J -17908148.64 -17908148.41 -17908148.16 0.0144 0.0055
 Jupiter -53743-08-31 16:47 J -17907965.04 -17907964.80 -17907964.57 0.0533 0.0046
 Uranus -53742-03-06 10:18 J -17907778.25 -17907778.07 -17907777.85 0.0144 0.0087
 Saturn -53742-08-07 04:47 J -17907624.52 -17907624.30 -17907624.08 0.0287 0.0093
 Saturn -53741-08-20 03:35 J -17907245.51 -17907245.35 -17907245.18 0.0291 0.0206
 Saturn -53728-01-30 07:54 J -17902699.36 -17902699.17 -17902698.97 0.0274 0.0163
 Saturn -53727-02-11 21:49 J -17902321.83 -17902321.59 -17902321.35 0.0271 0.0084

Mars -53715-01-14 10:18 J -17897967.23 -17897967.07 -17897966.91 0.1798 0.0899
 Saturn -53713-07-31 11:45 J -17897038.15 -17897038.01 -17897037.84 0.0286 0.0225
 Saturn -53712-08-14 00:42 J -17896659.71 -17896659.47 -17896659.23 0.0290 0.0069
 Jupiter -53701-02-21 07:40 J -17892816.23 -17892816.18 -17892816.11 0.0492 0.0475
 Uranus -53700-08-30 08:37 J -17892260.24 -17892260.14 -17892260.02 0.0134 0.0121
 Uranus -53699-09-03 20:09 J -17891890.90 -17891890.66 -17891890.42 0.0134 0.0018
 Saturn -53698-02-06 12:57 J -17891735.20 -17891734.96 -17891734.72 0.0272 0.0028
 Uranus -53698-09-07 21:06 J -17891521.80 -17891521.62 -17891521.41 0.0135 0.0090
 Saturn -53697-02-19 04:33 J -17891357.44 -17891357.31 -17891357.17 0.0269 0.0220
 Neptune -53695-07-24 20:52 J -17890470.68 -17890470.63 -17890470.57 0.0089 0.0086
 Neptune -53694-07-27 05:16 J -17890103.47 -17890103.28 -17890103.07 0.0089 0.0057
 Neptune -53693-07-28 21:21 J -17889735.80 -17889735.61 -17889735.37 0.0089 0.0046
 Neptune -53692-07-31 02:23 J -17889368.64 -17889368.40 -17889368.13 0.0089 0.0017
 Neptune -53691-08-02 20:52 J -17889000.89 -17889000.63 -17889000.37 0.0089 0.0006
 Neptune -53690-08-05 00:57 J -17888633.69 -17888633.46 -17888633.20 0.0089 0.0024
 Jupiter -53689-02-25 16:18 J -17888429.05 -17888428.82 -17888428.59 0.0493 0.0079
 Neptune -53689-08-06 17:45 J -17888265.98 -17888265.76 -17888265.50 0.0089 0.0035
 Neptune -53688-08-09 00:57 J -17887898.62 -17887898.46 -17887898.27 0.0089 0.0064
 Neptune -53687-08-11 12:57 J -17887531.08 -17887530.96 -17887530.80 0.0089 0.0075
 Saturn -53683-08-08 09:35 J -17886073.32 -17886073.10 -17886072.86 0.0287 0.0071
 Saturn -53682-08-22 05:30 J -17885694.42 -17885694.27 -17885694.12 0.0291 0.0226
 Jupiter -53677-03-01 09:21 J -17884041.30 -17884041.11 -17884040.90 0.0495 0.0276
 Jupiter -53672-08-25 23:16 J -17882037.63 -17882037.53 -17882037.42 0.0534 0.0474
 Saturn -53669-02-01 04:18 J -17881148.53 -17881148.32 -17881148.10 0.0274 0.0148
 Saturn -53668-02-12 14:09 J -17880771.15 -17880770.91 -17880770.67 0.0271 0.0101
 Pluto -53662-01-08 03:49 J -17878615.56 -17878615.34 -17878615.10 0.0063 0.0031
 Pluto -53661-01-09 20:09 J -17878248.83 -17878248.66 -17878248.43 0.0064 0.0039
 Jupiter -53660-08-30 18:57 J -17877649.94 -17877649.71 -17877649.49 0.0533 0.0016
 Uranus -53659-03-01 16:18 J -17877467.06 -17877466.82 -17877466.56 0.0144 0.0037
 Uranus -53658-03-07 01:25 J -17877096.64 -17877096.44 -17877096.23 0.0144 0.0083

Saturn -53654-08-02 08:37 J -17875487.31 -17875487.14 -17875486.96 0.0286 0.0202
 Saturn -53653-08-15 00:57 J -17875108.68 -17875108.46 -17875108.23 0.0290 0.0090
 Jupiter -53648-09-05 00:28 J -17873261.55 -17873261.48 -17873261.41 0.0532 0.0504
 Saturn -53640-01-25 18:13 J -17870561.81 -17870561.74 -17870561.67 0.0276 0.0262
 Saturn -53639-02-07 15:21 J -17870184.10 -17870183.86 -17870183.62 0.0272 0.0011
 Saturn -53638-02-20 04:47 J -17869806.40 -17869806.30 -17869806.17 0.0269 0.0237
 Mars -53636-01-17 02:09 J -17869109.50 -17869109.41 -17869109.31 0.1791 0.1561
 Saturn -53624-08-09 14:09 J -17864522.16 -17864521.91 -17864521.67 0.0287 0.0047
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 Uranus -53616-08-30 20:37 J -17861578.77 -17861578.64 -17861578.48 0.0134 0.0109
 Uranus -53615-09-04 08:37 J -17861209.39 -17861209.14 -17861208.90 0.0134 0.0009
 Uranus -53614-09-08 08:52 J -17860840.31 -17860840.13 -17860839.93 0.0135 0.0091
 Neptune -53613-01-19 15:49 J -17860706.85 -17860706.84 -17860706.77 0.0089 0.0088
 Neptune -53612-01-20 21:21 J -17860339.76 -17860339.61 -17860339.41 0.0089 0.0066
 Neptune -53611-01-23 16:47 J -17859972.01 -17859971.80 -17859971.57 0.0089 0.0046
 Mars -53611-07-20 04:33 J -17859794.48 -17859794.31 -17859794.14 0.1739 0.0702
 Neptune -53610-01-25 21:49 J -17859604.82 -17859604.59 -17859604.34 0.0089 0.0026
 Saturn -53610-02-01 22:47 J -17859597.77 -17859597.55 -17859597.32 0.0274 0.0129
 Neptune -53609-01-28 15:49 J -17859237.10 -17859236.84 -17859236.57 0.0089 0.0006
 Saturn -53609-02-14 11:16 J -17859220.24 -17859220.03 -17859219.80 0.0271 0.0122
 Neptune -53608-01-29 23:45 J -17858869.75 -17858869.51 -17858869.25 0.0089 0.0015
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 Neptune -53606-02-04 03:06 J -17858134.55 -17858134.37 -17858134.16 0.0089 0.0056
 Jupiter -53606-02-25 07:25 J -17858113.42 -17858113.19 -17858112.95 0.0493 0.0114
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 Saturn -53595-08-03 12:57 J -17853936.14 -17853935.96 -17853935.77 0.0286 0.0178
 Jupiter -53594-03-01 12:13 J -17853726.20 -17853725.99 -17853725.78 0.0494 0.0234
 Saturn -53594-08-17 09:21 J -17853557.32 -17853557.11 -17853556.89 0.0290 0.0113
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 Saturn -53580-02-08 17:01 J -17848633.04 -17848632.79 -17848632.54 0.0272 0.0011

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 Saturn -53522-01-29 03:21 J -17827459.49 -17827459.36 -17827459.20 0.0275 0.0222
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 Jupiter -53511-03-01 01:25 J -17823410.66 -17823410.44 -17823410.22 0.0493 0.0179
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 Saturn -53506-08-13 01:40 J -17821419.67 -17821419.43 -17821419.18 0.0288 0.0014

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 Saturn -53492-02-04 08:52 J -17816495.35 -17816495.13 -17816494.90 0.0274 0.0082
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 Pluto -53413-01-10 12:28 J -17787666.23 -17787665.98 -17787665.71 0.0064 0.0004
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 Saturn -53389-08-02 19:11 J -17778694.85 -17778694.70 -17778694.53 0.0285 0.0206
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 Saturn -53358-08-24 08:37 J -17767351.26 -17767351.14 -17767351.01 0.0291 0.0246
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 Jupiter -53333-03-03 16:04 J -17758392.95 -17758392.83 -17758392.70 0.0494 0.0422
 Saturn -53330-08-05 14:52 J -17757143.07 -17757142.88 -17757142.68 0.0286 0.0169
 Saturn -53329-08-18 07:40 J -17756764.39 -17756764.18 -17756763.95 0.0289 0.0122
 Jupiter -53328-08-27 17:16 J -17756389.97 -17756389.78 -17756389.59 0.0535 0.0321
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 Pluto -53324-07-16 20:23 J -17754970.75 -17754970.65 -17754970.50 0.0080 0.0070
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 Jupiter -53316-09-01 23:45 J -17752001.71 -17752001.51 -17752001.31 0.0534 0.0209
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 Saturn -53314-02-22 02:52 J -17751463.41 -17751463.38 -17751463.31 0.0270 0.0264
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 Saturn -53152-08-23 16:33 J -17692109.95 -17692109.81 -17692109.65 0.0290 0.0227
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 Mars -53147-01-14 12:57 J -17690505.00 -17690504.96 -17690504.92 0.1818 0.1777
 Saturn -53139-02-02 15:21 J -17687564.06 -17687563.86 -17687563.66 0.0274 0.0150
 Saturn -53138-02-15 10:18 J -17687186.29 -17687186.07 -17687185.85 0.0271 0.0111
 Jupiter -53138-09-05 23:59 J -17686983.60 -17686983.50 -17686983.39 0.0533 0.0472
 Saturn -53124-08-04 08:09 J -17681902.32 -17681902.16 -17681901.98 0.0285 0.0201
 Saturn -53123-08-17 22:04 J -17681523.81 -17681523.58 -17681523.34 0.0289 0.0087
 Neptune -53119-01-21 04:33 J -17680271.36 -17680271.31 -17680271.21 0.0089 0.0084
 Neptune -53118-01-23 15:06 J -17679904.06 -17679903.87 -17679903.65 0.0089 0.0055
 Neptune -53117-01-26 06:28 J -17679536.43 -17679536.23 -17679535.99 0.0089 0.0043
 Neptune -53116-01-27 12:42 J -17679169.21 -17679168.97 -17679168.70 0.0089 0.0014
 Neptune -53115-01-30 07:40 J -17678801.44 -17678801.18 -17678800.92 0.0089 0.0001
 Neptune -53114-02-01 12:28 J -17678434.22 -17678433.98 -17678433.73 0.0089 0.0030

Neptune -53113-02-04 06:57 J -17678066.44 -17678066.21 -17678065.97 0.0089 0.0042
 Neptune -53112-02-05 13:25 J -17677699.07 -17677698.94 -17677698.77 0.0089 0.0072
 Uranus -53112-09-03 06:42 J -17677489.43 -17677489.22 -17677488.98 0.0134 0.0056
 Neptune -53111-02-08 04:47 J -17677331.36 -17677331.30 -17677331.18 0.0088 0.0084
 Uranus -53111-09-07 19:11 J -17677119.93 -17677119.70 -17677119.45 0.0134 0.0044
 Saturn -53110-01-28 07:40 J -17676977.22 -17676977.18 -17676977.12 0.0276 0.0270
 Saturn -53109-02-09 21:06 J -17676599.87 -17676599.62 -17676599.36 0.0273 0.0010
 Jupiter -53108-02-21 01:40 J -17676222.46 -17676222.43 -17676222.39 0.0492 0.0485
 Saturn -53108-02-21 10:18 J -17676222.15 -17676222.07 -17676221.97 0.0270 0.0249
 Jupiter -53096-02-25 17:45 J -17671834.99 -17671834.76 -17671834.53 0.0493 0.0142
 Saturn -53094-08-12 04:47 J -17670937.53 -17670937.30 -17670937.06 0.0287 0.0042
 Saturn -53093-08-25 02:52 J -17670558.48 -17670558.38 -17670558.26 0.0291 0.0254
 Jupiter -53084-03-01 17:30 J -17667447.98 -17667447.77 -17667447.57 0.0493 0.0241
 Saturn -53080-02-04 02:52 J -17666012.59 -17666012.38 -17666012.16 0.0274 0.0123
 Saturn -53079-02-16 16:47 J -17665635.01 -17665634.80 -17665634.57 0.0271 0.0137
 Pluto -53076-07-17 18:57 J -17664387.95 -17664387.71 -17664387.45 0.0080 0.0011
 Uranus -53072-02-28 15:06 J -17663066.03 -17663065.87 -17663065.71 0.0145 0.0114
 Uranus -53071-03-05 13:11 J -17662696.20 -17662695.95 -17662695.70 0.0145 0.0021
 Mars -53068-01-17 19:40 J -17661646.85 -17661646.68 -17661646.50 0.1810 0.0835
 Jupiter -53067-08-31 03:35 J -17661056.58 -17661056.35 -17661056.11 0.0534 0.0036
 Saturn -53065-08-05 09:49 J -17660351.28 -17660351.09 -17660350.89 0.0285 0.0178
 Saturn -53064-08-18 21:35 J -17659972.83 -17659972.60 -17659972.36 0.0289 0.0110
 Jupiter -53055-09-04 20:52 J -17656668.78 -17656668.63 -17656668.48 0.0533 0.0404
 Saturn -53051-01-29 08:37 J -17655426.24 -17655426.14 -17655426.02 0.0276 0.0246
 Saturn -53050-02-11 02:37 J -17655048.63 -17655048.39 -17655048.15 0.0272 0.0017
 Mars -53043-07-20 23:59 J -17652331.65 -17652331.50 -17652331.35 0.1722 0.0983
 Neptune -53036-07-28 00:42 J -17649767.63 -17649767.47 -17649767.28 0.0089 0.0064
 Neptune -53035-07-30 09:35 J -17649400.31 -17649400.10 -17649399.87 0.0089 0.0049
 Saturn -53035-08-13 11:45 J -17649386.25 -17649386.01 -17649385.77 0.0288 0.0020
 Neptune -53034-08-02 01:40 J -17649032.67 -17649032.43 -17649032.18 0.0089 0.0021

Saturn -53034-08-27 07:40 J -17649007.25 -17649007.18 -17649007.10 0.0291 0.0275
 Neptune -53033-08-03 06:42 J -17648665.48 -17648665.22 -17648664.96 0.0089 0.0007
 Neptune -53032-08-06 00:42 J -17648297.70 -17648297.47 -17648297.20 0.0089 0.0023
 Neptune -53031-08-08 05:45 J -17647930.49 -17647930.26 -17647930.03 0.0089 0.0035
 Neptune -53030-08-10 22:04 J -17647562.75 -17647562.58 -17647562.38 0.0089 0.0064
 Neptune -53029-08-12 05:16 J -17647195.39 -17647195.28 -17647195.15 0.0089 0.0077
 Uranus -53028-09-03 20:52 J -17646807.86 -17646807.63 -17646807.40 0.0134 0.0053
 Uranus -53027-09-08 08:37 J -17646438.36 -17646438.14 -17646437.89 0.0134 0.0054
 Saturn -53021-02-06 06:57 J -17644461.44 -17644461.21 -17644460.97 0.0274 0.0099
 Saturn -53020-02-17 16:47 J -17644084.00 -17644083.80 -17644083.59 0.0271 0.0164
 Jupiter -53013-02-25 15:06 J -17641520.08 -17641519.87 -17641519.65 0.0492 0.0201
 Saturn -53006-08-07 07:54 J -17638800.37 -17638800.17 -17638799.96 0.0285 0.0158
 Saturn -53005-08-19 23:01 J -17638421.75 -17638421.54 -17638421.32 0.0289 0.0131
 Jupiter -53001-03-01 09:35 J -17637132.30 -17637132.10 -17637131.88 0.0493 0.0211

53RD MILLENNIUM BCE

This is a list of transits of Moon in the 53rd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-52992-01-30 11:16 J	-17633875.15	-17633875.03	-17633874.88	0.0276	0.0224		
Saturn	-52991-02-12 08:52 J	-17633497.36	-17633497.13	-17633496.89	0.0272	0.0043		
Uranus	-52988-03-01 00:57 J	-17632384.62	-17632384.46	-17632384.25	0.0145	0.0103		
Uranus	-52987-03-06 00:28 J	-17632014.71	-17632014.48	-17632014.22	0.0145	0.0033		
Jupiter	-52984-08-29 22:33 J	-17630741.78	-17630741.56	-17630741.33	0.0534	0.0111		

Saturn -52977-07-31 22:04 J -17628213.60 -17628213.58 -17628213.55 0.0284 0.0282
 Saturn -52976-08-14 11:30 J -17627835.27 -17627835.02 -17627834.78 0.0288 0.0004
 Saturn -52975-08-28 02:52 J -17627456.39 -17627456.38 -17627456.36 0.0291 0.0290
 Jupiter -52972-09-04 06:57 J -17626353.38 -17626353.21 -17626353.03 0.0534 0.0333
 Mars -52964-07-23 10:47 J -17623474.22 -17623474.05 -17623473.87 0.1727 0.0868
 Saturn -52962-02-07 03:21 J -17622910.60 -17622910.36 -17622910.11 0.0274 0.0073
 Saturn -52961-02-19 16:04 J -17622533.00 -17622532.83 -17622532.65 0.0271 0.0187
 Neptune -52954-01-22 23:30 J -17620003.66 -17620003.52 -17620003.34 0.0089 0.0069
 Neptune -52953-01-25 05:30 J -17619636.47 -17619636.27 -17619636.04 0.0089 0.0052
 Neptune -52952-01-27 00:42 J -17619268.71 -17619268.47 -17619268.22 0.0089 0.0026
 Neptune -52951-01-29 05:45 J -17618901.51 -17618901.26 -17618901.00 0.0089 0.0008
 Neptune -52950-01-31 23:59 J -17618533.76 -17618533.50 -17618533.24 0.0089 0.0016
 Neptune -52949-02-03 07:25 J -17618166.42 -17618166.19 -17618165.95 0.0089 0.0034
 Neptune -52948-02-04 21:21 J -17617798.80 -17617798.61 -17617798.40 0.0089 0.0058
 Neptune -52947-02-07 09:06 J -17617431.23 -17617431.12 -17617430.99 0.0089 0.0077
 Saturn -52947-08-08 07:54 J -17617249.38 -17617249.17 -17617248.96 0.0285 0.0139
 Saturn -52946-08-22 02:37 J -17616870.58 -17616870.39 -17616870.18 0.0289 0.0148
 Uranus -52944-09-04 11:30 J -17616126.26 -17616126.02 -17616125.78 0.0134 0.0037
 Uranus -52943-09-08 22:47 J -17615756.76 -17615756.55 -17615756.31 0.0134 0.0062
 Saturn -52933-02-01 15:21 J -17612324.01 -17612323.86 -17612323.69 0.0276 0.0201
 Saturn -52932-02-13 10:33 J -17611946.29 -17611946.06 -17611945.81 0.0272 0.0066
 Jupiter -52930-02-25 09:21 J -17611204.31 -17611204.11 -17611203.91 0.0492 0.0232
 Jupiter -52918-03-01 14:37 J -17606817.11 -17606816.89 -17606816.65 0.0493 0.0178
 Saturn -52918-08-02 20:52 J -17606662.71 -17606662.63 -17606662.52 0.0284 0.0263
 Saturn -52917-08-15 05:45 J -17606284.51 -17606284.26 -17606284.01 0.0288 0.0015
 Pluto -52916-01-13 08:52 J -17606133.40 -17606133.13 -17606132.86 0.0064 0.0002
 Uranus -52904-03-01 13:25 J -17601703.12 -17601702.94 -17601702.74 0.0145 0.0100
 Saturn -52903-02-07 23:59 J -17601359.73 -17601359.50 -17601359.25 0.0274 0.0052
 Uranus -52903-03-06 13:25 J -17601333.18 -17601332.94 -17601332.70 0.0145 0.0036
 Saturn -52902-02-20 17:59 J -17600981.88 -17600981.75 -17600981.59 0.0271 0.0211

Jupiter -52901-08-29 13:40 J -17600426.15 -17600425.93 -17600425.72 0.0536 0.0162
 Jupiter -52889-09-03 11:59 J -17596038.19 -17596038.00 -17596037.80 0.0534 0.0291
 Saturn -52888-08-09 10:47 J -17595698.26 -17595698.05 -17595697.83 0.0285 0.0122
 Saturn -52887-08-23 03:49 J -17595319.54 -17595319.34 -17595319.14 0.0289 0.0164
 Saturn -52874-02-02 14:09 J -17590773.09 -17590772.91 -17590772.72 0.0276 0.0182
 Saturn -52873-02-15 04:18 J -17590395.56 -17590395.32 -17590395.07 0.0273 0.0088
 Neptune -52872-07-27 00:13 J -17589867.61 -17589867.49 -17589867.33 0.0089 0.0075
 Neptune -52871-07-29 17:16 J -17589499.95 -17589499.78 -17589499.58 0.0089 0.0061
 Neptune -52870-07-31 22:04 J -17589132.81 -17589132.58 -17589132.33 0.0089 0.0033
 Neptune -52869-08-02 16:33 J -17588765.06 -17588764.81 -17588764.55 0.0089 0.0018
 Neptune -52868-08-04 21:35 J -17588397.85 -17588397.60 -17588397.34 0.0089 0.0009
 Neptune -52867-08-07 13:54 J -17588030.16 -17588029.92 -17588029.66 0.0089 0.0025
 Neptune -52866-08-09 22:18 J -17587662.76 -17587662.57 -17587662.36 0.0089 0.0052
 Neptune -52865-08-11 09:49 J -17587295.24 -17587295.09 -17587294.89 0.0089 0.0068
 Uranus -52861-09-01 02:09 J -17585813.46 -17585813.41 -17585813.31 0.0133 0.0127
 Uranus -52860-09-05 01:25 J -17585444.67 -17585444.44 -17585444.19 0.0134 0.0035
 Saturn -52859-08-03 14:09 J -17585112.01 -17585111.91 -17585111.77 0.0284 0.0248
 Uranus -52859-09-09 12:42 J -17585075.18 -17585074.97 -17585074.75 0.0134 0.0072
 Saturn -52858-08-17 00:57 J -17584733.70 -17584733.46 -17584733.22 0.0287 0.0032
 Jupiter -52847-02-24 12:42 J -17580889.17 -17580888.97 -17580888.76 0.0491 0.0268
 Saturn -52844-02-09 00:57 J -17579808.70 -17579808.46 -17579808.22 0.0274 0.0032
 Saturn -52843-02-21 19:11 J -17579430.81 -17579430.70 -17579430.56 0.0271 0.0233
 Jupiter -52835-03-01 02:52 J -17576501.60 -17576501.38 -17576501.16 0.0492 0.0149
 Saturn -52829-08-10 12:57 J -17574147.19 -17574146.96 -17574146.73 0.0285 0.0102
 Pluto -52828-07-18 07:25 J -17573805.37 -17573805.19 -17573805.00 0.0081 0.0057
 Saturn -52828-08-24 00:28 J -17573768.67 -17573768.48 -17573768.27 0.0289 0.0182
 Uranus -52820-03-01 22:18 J -17571021.78 -17571021.57 -17571021.36 0.0145 0.0089
 Uranus -52819-03-06 23:16 J -17570651.76 -17570651.53 -17570651.29 0.0145 0.0044
 Jupiter -52818-08-29 17:59 J -17570110.97 -17570110.75 -17570110.53 0.0535 0.0207
 Saturn -52815-02-03 06:57 J -17569222.41 -17569222.21 -17569221.99 0.0276 0.0162

Saturn -52814-02-15 21:35 J -17568844.81 -17568844.60 -17568844.36 0.0273 0.0111
 Jupiter -52806-09-03 20:23 J -17565722.84 -17565722.65 -17565722.45 0.0534 0.0229
 Saturn -52800-08-04 11:30 J -17563561.15 -17563561.02 -17563560.88 0.0284 0.0233
 Saturn -52799-08-18 02:23 J -17563182.63 -17563182.40 -17563182.17 0.0287 0.0048
 Neptune -52790-01-21 21:49 J -17560103.63 -17560103.59 -17560103.50 0.0089 0.0086
 Neptune -52789-01-24 17:16 J -17559735.97 -17559735.78 -17559735.58 0.0089 0.0057
 Neptune -52788-01-25 22:18 J -17559368.78 -17559368.57 -17559368.34 0.0089 0.0044
 Neptune -52787-01-28 15:35 J -17559001.10 -17559000.85 -17559000.58 0.0089 0.0015
 Neptune -52786-01-31 00:13 J -17558633.74 -17558633.49 -17558633.24 0.0089 0.0001
 Neptune -52785-02-02 12:57 J -17558266.20 -17558265.96 -17558265.69 0.0089 0.0029
 Saturn -52785-02-11 00:28 J -17558257.72 -17558257.48 -17558257.23 0.0274 0.0013
 Mars -52784-01-17 05:59 J -17557916.45 -17557916.25 -17557916.04 0.1821 0.0011
 Neptune -52784-02-04 02:23 J -17557898.60 -17557898.40 -17557898.16 0.0089 0.0043
 Saturn -52784-02-22 14:09 J -17557880.01 -17557879.91 -17557879.81 0.0271 0.0250
 Neptune -52783-02-06 11:16 J -17557531.18 -17557531.03 -17557530.87 0.0089 0.0072
 Neptune -52782-02-09 04:04 J -17557163.36 -17557163.33 -17557163.23 0.0089 0.0086
 Uranus -52777-09-01 16:47 J -17555131.84 -17555131.80 -17555131.72 0.0133 0.0130
 Uranus -52776-09-05 16:47 J -17554763.05 -17554762.80 -17554762.56 0.0134 0.0018
 Uranus -52775-09-10 03:21 J -17554393.56 -17554393.36 -17554393.15 0.0134 0.0080
 Saturn -52770-08-12 10:04 J -17552596.32 -17552596.08 -17552595.83 0.0285 0.0087
 Saturn -52769-08-24 20:37 J -17552217.81 -17552217.64 -17552217.45 0.0288 0.0199
 Jupiter -52764-02-24 02:37 J -17550573.57 -17550573.39 -17550573.21 0.0491 0.0295
 Mars -52759-07-22 05:30 J -17548599.43 -17548599.27 -17548599.11 0.1715 0.0789
 Saturn -52756-02-04 00:42 J -17547671.67 -17547671.47 -17547671.25 0.0276 0.0143
 Saturn -52755-02-16 21:35 J -17547293.80 -17547293.60 -17547293.38 0.0273 0.0129
 Jupiter -52752-02-28 15:06 J -17546186.11 -17546185.87 -17546185.64 0.0492 0.0128
 Saturn -52741-08-05 16:18 J -17542009.96 -17542009.82 -17542009.66 0.0284 0.0217
 Saturn -52740-08-19 07:11 J -17541631.43 -17541631.20 -17541630.96 0.0287 0.0066
 Uranus -52736-03-02 11:59 J -17540340.20 -17540340.00 -17540339.77 0.0145 0.0087
 Uranus -52735-03-07 13:54 J -17539970.15 -17539969.92 -17539969.69 0.0145 0.0051

Jupiter -52735-08-29 01:11 J -17539795.64 -17539795.45 -17539795.27 0.0536 0.0285
 Saturn -52727-01-30 00:28 J -17537084.52 -17537084.48 -17537084.41 0.0278 0.0270
 Saturn -52726-02-11 19:54 J -17536706.92 -17536706.67 -17536706.41 0.0274 0.0007
 Saturn -52725-02-24 06:42 J -17536329.23 -17536329.22 -17536329.18 0.0271 0.0270
 Jupiter -52723-09-03 02:37 J -17535407.62 -17535407.39 -17535407.16 0.0535 0.0161
 Saturn -52711-08-13 09:21 J -17531045.35 -17531045.11 -17531044.87 0.0285 0.0069
 Saturn -52710-08-27 00:13 J -17530666.64 -17530666.49 -17530666.34 0.0288 0.0221
 Neptune -52707-07-28 14:52 J -17529600.04 -17529599.88 -17529599.70 0.0089 0.0067
 Neptune -52706-07-31 08:52 J -17529232.32 -17529232.13 -17529231.90 0.0089 0.0052
 Neptune -52705-08-01 14:52 J -17528865.12 -17528864.88 -17528864.64 0.0089 0.0024
 Neptune -52704-08-04 05:59 J -17528497.51 -17528497.25 -17528496.98 0.0089 0.0008
 Neptune -52703-08-06 14:52 J -17528130.11 -17528129.88 -17528129.63 0.0089 0.0020
 Neptune -52702-08-09 01:40 J -17527762.67 -17527762.43 -17527762.18 0.0089 0.0035
 Neptune -52701-08-10 15:35 J -17527395.00 -17527394.85 -17527394.65 0.0089 0.0063
 Neptune -52700-08-12 22:18 J -17527027.68 -17527027.57 -17527027.43 0.0089 0.0077
 Saturn -52697-02-06 01:25 J -17526120.65 -17526120.44 -17526120.23 0.0276 0.0122
 Saturn -52696-02-17 23:59 J -17525742.69 -17525742.50 -17525742.29 0.0273 0.0149
 Uranus -52693-09-02 06:42 J -17524450.35 -17524450.22 -17524450.05 0.0133 0.0109
 Uranus -52692-09-06 07:11 J -17524081.44 -17524081.20 -17524080.95 0.0134 0.0016
 Uranus -52691-09-10 17:16 J -17523711.95 -17523711.78 -17523711.58 0.0134 0.0092
 Saturn -52682-08-07 23:16 J -17520458.70 -17520458.53 -17520458.35 0.0284 0.0197
 Jupiter -52681-02-24 14:23 J -17520258.08 -17520257.90 -17520257.71 0.0491 0.0320
 Saturn -52681-08-20 09:49 J -17520080.33 -17520080.09 -17520079.85 0.0287 0.0086
 Mars -52680-07-24 08:37 J -17519742.29 -17519742.14 -17519742.00 0.1720 0.1009
 Jupiter -52669-02-28 19:25 J -17515870.92 -17515870.69 -17515870.47 0.0491 0.0099
 Pluto -52668-01-14 12:42 J -17515550.20 -17515549.97 -17515549.72 0.0064 0.0020
 Saturn -52668-01-30 21:06 J -17515533.72 -17515533.62 -17515533.49 0.0278 0.0246
 Pluto -52667-01-15 22:04 J -17515183.70 -17515183.58 -17515183.38 0.0064 0.0051
 Saturn -52667-02-12 14:37 J -17515156.14 -17515155.89 -17515155.64 0.0274 0.0029
 Jupiter -52657-03-04 12:57 J -17511482.99 -17511482.96 -17511482.91 0.0492 0.0483

Uranus -52652-03-03 00:13 J -17509658.72 -17509658.49 -17509658.26 0.0145 0.0070
 Saturn -52652-08-14 17:16 J -17509494.01 -17509493.78 -17509493.54 0.0285 0.0045
 Jupiter -52652-08-28 05:30 J -17509480.45 -17509480.27 -17509480.09 0.0536 0.0359
 Uranus -52651-03-08 02:52 J -17509288.60 -17509288.38 -17509288.15 0.0145 0.0062
 Saturn -52651-08-28 10:33 J -17509115.17 -17509115.06 -17509114.93 0.0288 0.0245
 Jupiter -52640-09-02 05:01 J -17505092.51 -17505092.29 -17505092.07 0.0535 0.0104
 Saturn -52638-02-07 07:11 J -17504569.42 -17504569.20 -17504568.97 0.0276 0.0097
 Saturn -52637-02-20 01:25 J -17504191.64 -17504191.44 -17504191.24 0.0273 0.0169
 Neptune -52625-01-23 15:06 J -17499836.00 -17499835.87 -17499835.70 0.0089 0.0071
 Neptune -52624-01-25 07:40 J -17499468.36 -17499468.18 -17499467.95 0.0089 0.0055
 Neptune -52623-01-27 17:45 J -17499100.99 -17499100.76 -17499100.51 0.0089 0.0027
 Saturn -52623-08-09 04:18 J -17498907.52 -17498907.32 -17498907.12 0.0284 0.0171
 Neptune -52622-01-30 05:45 J -17498733.52 -17498733.26 -17498732.98 0.0089 0.0011
 Saturn -52622-08-22 11:59 J -17498529.23 -17498529.00 -17498528.76 0.0288 0.0109
 Neptune -52621-02-01 20:09 J -17498365.91 -17498365.66 -17498365.41 0.0089 0.0017
 Neptune -52620-02-03 03:06 J -17497998.61 -17497998.37 -17497998.11 0.0089 0.0033
 Neptune -52619-02-05 21:06 J -17497630.79 -17497630.62 -17497630.42 0.0089 0.0060
 Neptune -52618-02-08 02:09 J -17497263.52 -17497263.41 -17497263.26 0.0089 0.0077
 Saturn -52609-02-01 18:28 J -17493982.87 -17493982.73 -17493982.57 0.0277 0.0218
 Uranus -52609-09-02 21:21 J -17493768.73 -17493768.61 -17493768.44 0.0133 0.0111
 Saturn -52608-02-13 15:49 J -17493605.07 -17493604.84 -17493604.60 0.0274 0.0053
 Uranus -52608-09-06 22:33 J -17493399.80 -17493399.56 -17493399.31 0.0134 0.0003
 Uranus -52607-09-11 08:09 J -17493030.32 -17493030.16 -17493029.98 0.0134 0.0100
 Jupiter -52598-02-23 17:45 J -17489942.92 -17489942.76 -17489942.60 0.0490 0.0356
 Saturn -52593-08-16 06:57 J -17487942.45 -17487942.21 -17487941.97 0.0285 0.0017
 Saturn -52592-08-29 22:18 J -17487563.64 -17487563.57 -17487563.48 0.0289 0.0272
 Jupiter -52586-02-28 08:37 J -17485555.37 -17485555.14 -17485554.90 0.0491 0.0054
 Saturn -52579-02-08 11:45 J -17483018.25 -17483018.01 -17483017.76 0.0276 0.0069
 Pluto -52579-07-21 12:13 J -17482855.18 -17482854.99 -17482854.76 0.0080 0.0044
 Saturn -52578-02-21 01:25 J -17482640.62 -17482640.44 -17482640.26 0.0273 0.0194

Jupiter -52574-03-04 11:01 J -17481168.16 -17481168.04 -17481167.92 0.0492 0.0428
 Jupiter -52569-08-27 04:04 J -17479165.45 -17479165.33 -17479165.20 0.0536 0.0439
 Uranus -52568-03-03 16:04 J -17478977.07 -17478976.83 -17478976.60 0.0145 0.0066
 Uranus -52567-03-08 19:11 J -17478606.91 -17478606.70 -17478606.48 0.0145 0.0073
 Saturn -52564-08-10 09:49 J -17477356.30 -17477356.09 -17477355.87 0.0284 0.0145
 Saturn -52563-08-23 20:52 J -17476977.83 -17476977.63 -17476977.41 0.0288 0.0139
 Jupiter -52557-09-01 11:30 J -17474777.25 -17474777.02 -17474776.79 0.0535 0.0019
 Saturn -52550-02-03 00:57 J -17472431.62 -17472431.46 -17472431.27 0.0277 0.0191
 Saturn -52549-02-16 01:40 J -17472053.66 -17472053.43 -17472053.20 0.0274 0.0081
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 Neptune -52543-07-28 00:57 J -17469699.57 -17469699.46 -17469699.32 0.0089 0.0078
 Neptune -52542-07-30 07:11 J -17469332.36 -17469332.20 -17469332.01 0.0089 0.0064
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 Neptune -52540-08-03 08:37 J -17468597.37 -17468597.14 -17468596.89 0.0089 0.0021
 Neptune -52539-08-05 18:28 J -17468229.99 -17468229.73 -17468229.46 0.0089 0.0009
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 Neptune -52536-08-12 08:23 J -17467127.30 -17467127.15 -17467126.97 0.0089 0.0067
 Saturn -52535-08-05 09:06 J -17466769.20 -17466769.12 -17466769.01 0.0282 0.0260
 Saturn -52534-08-18 20:23 J -17466390.89 -17466390.65 -17466390.40 0.0286 0.0017
 Uranus -52525-09-03 10:47 J -17463087.23 -17463087.05 -17463086.84 0.0133 0.0089
 Uranus -52524-09-07 12:42 J -17462718.22 -17462717.97 -17462717.73 0.0134 0.0004
 Uranus -52523-09-11 21:21 J -17462348.73 -17462348.61 -17462348.45 0.0134 0.0112
 Saturn -52520-02-09 15:06 J -17461467.12 -17461466.87 -17461466.62 0.0275 0.0038
 Saturn -52519-02-22 06:13 J -17461089.37 -17461089.24 -17461089.09 0.0272 0.0223
 Jupiter -52515-02-23 04:47 J -17459627.43 -17459627.30 -17459627.17 0.0491 0.0411
 Saturn -52505-08-11 21:35 J -17455804.82 -17455804.60 -17455804.37 0.0285 0.0111
 Saturn -52504-08-25 13:40 J -17455426.11 -17455425.93 -17455425.74 0.0288 0.0175
 Jupiter -52503-02-27 06:13 J -17455240.47 -17455240.24 -17455240.00 0.0491 0.0010
 Mars -52500-01-17 10:18 J -17454185.23 -17454185.07 -17454184.90 0.1830 0.0587

Saturn -52491-02-04 14:09 J -17450880.10 -17450879.91 -17450879.72 0.0277 0.0160
 Jupiter -52491-03-03 23:45 J -17450852.66 -17450852.51 -17450852.36 0.0492 0.0374
 Saturn -52490-02-17 12:13 J -17450502.21 -17450501.99 -17450501.75 0.0274 0.0111
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 Saturn -52476-08-07 00:13 J -17445217.62 -17445217.49 -17445217.33 0.0283 0.0226
 Mars -52475-07-22 22:04 J -17444867.76 -17444867.58 -17444867.39 0.1707 0.0732
 Saturn -52475-08-20 07:54 J -17444839.42 -17444839.17 -17444838.92 0.0286 0.0053
 Jupiter -52474-08-31 23:16 J -17444462.75 -17444462.53 -17444462.30 0.0536 0.0084
 Jupiter -52462-09-06 10:04 J -17440074.19 -17440074.08 -17440073.97 0.0535 0.0460
 Neptune -52461-01-23 00:42 J -17439935.48 -17439935.47 -17439935.40 0.0089 0.0088
 Saturn -52461-02-12 00:42 J -17439915.72 -17439915.47 -17439915.23 0.0275 0.0005
 Neptune -52460-01-24 11:16 J -17439568.20 -17439568.03 -17439567.84 0.0089 0.0060
 Saturn -52460-02-23 19:54 J -17439537.75 -17439537.67 -17439537.58 0.0272 0.0253
 Neptune -52459-01-26 21:35 J -17439200.81 -17439200.60 -17439200.35 0.0089 0.0044
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 Neptune -52457-01-31 20:23 J -17438465.91 -17438465.65 -17438465.38 0.0089 0.0001
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 Saturn -52446-08-14 15:06 J -17434253.10 -17434252.87 -17434252.64 0.0285 0.0077
 Saturn -52445-08-27 07:40 J -17433874.33 -17433874.18 -17433874.01 0.0288 0.0212
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 Saturn -52432-02-06 03:35 J -17429328.56 -17429328.35 -17429328.12 0.0276 0.0128
 Jupiter -52432-02-22 01:40 J -17429312.49 -17429312.43 -17429312.35 0.0490 0.0467
 Saturn -52431-02-18 19:54 J -17428950.88 -17428950.67 -17428950.44 0.0273 0.0141
 Mars -52421-01-21 01:25 J -17425327.52 -17425327.44 -17425327.36 0.1824 0.1655

Pluto -52420-01-15 16:33 J -17424966.97 -17424966.81 -17424966.59 0.0063 0.0045
 Jupiter -52420-02-26 17:45 J -17424924.99 -17424924.76 -17424924.53 0.0491 0.0058
 Pluto -52419-01-17 08:23 J -17424600.37 -17424600.15 -17424599.90 0.0064 0.0024
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 Saturn -52416-08-21 20:09 J -17423287.90 -17423287.66 -17423287.43 0.0287 0.0089
 Jupiter -52408-03-02 19:25 J -17420537.89 -17420537.69 -17420537.49 0.0492 0.0290
 Saturn -52403-01-31 17:01 J -17418741.89 -17418741.79 -17418741.67 0.0278 0.0246
 Saturn -52402-02-13 16:33 J -17418364.04 -17418363.81 -17418363.57 0.0275 0.0028
 Uranus -52400-03-04 13:54 J -17417614.16 -17417613.92 -17417613.66 0.0145 0.0053
 Uranus -52399-03-09 19:11 J -17417243.88 -17417243.70 -17417243.48 0.0145 0.0089
 Mars -52396-07-25 12:42 J -17416010.10 -17416009.97 -17416009.84 0.1713 0.1193
 Jupiter -52391-08-31 07:11 J -17414147.42 -17414147.20 -17414146.99 0.0536 0.0160
 Saturn -52387-08-16 09:35 J -17412701.34 -17412701.10 -17412700.87 0.0286 0.0043
 Saturn -52386-08-29 23:01 J -17412322.65 -17412322.54 -17412322.40 0.0289 0.0249
 Jupiter -52379-09-05 02:52 J -17409759.55 -17409759.38 -17409759.21 0.0535 0.0365
 Neptune -52378-07-29 15:21 J -17409432.01 -17409431.86 -17409431.68 0.0089 0.0070
 Neptune -52377-07-31 02:37 J -17409064.57 -17409064.39 -17409064.17 0.0089 0.0053
 Neptune -52376-08-02 11:16 J -17408697.28 -17408697.03 -17408696.77 0.0089 0.0027
 Neptune -52375-08-05 03:21 J -17408329.60 -17408329.36 -17408329.10 0.0089 0.0009
 Neptune -52374-08-07 08:23 J -17407962.39 -17407962.15 -17407961.88 0.0089 0.0019
 Saturn -52373-02-08 15:21 J -17407777.10 -17407776.86 -17407776.62 0.0276 0.0093
 Neptune -52373-08-09 02:23 J -17407594.62 -17407594.40 -17407594.15 0.0089 0.0036
 Saturn -52372-02-20 04:47 J -17407399.49 -17407399.30 -17407399.10 0.0273 0.0174
 Neptune -52372-08-11 06:28 J -17407227.38 -17407227.23 -17407227.02 0.0089 0.0063
 Neptune -52371-08-14 00:13 J -17406859.60 -17406859.49 -17406859.36 0.0089 0.0078
 Saturn -52358-08-10 22:18 J -17402114.76 -17402114.57 -17402114.36 0.0284 0.0162
 Saturn -52357-08-23 11:30 J -17401736.24 -17401736.02 -17401735.81 0.0287 0.0126
 Uranus -52357-09-04 12:57 J -17401724.17 -17401723.96 -17401723.73 0.0133 0.0072
 Uranus -52356-09-08 16:33 J -17401355.05 -17401354.81 -17401354.57 0.0133 0.0020
 Uranus -52355-09-12 23:45 J -17400985.56 -17400985.51 -17400985.43 0.0134 0.0129

Saturn -52344-02-02 10:18 J -17397190.22 -17397190.07 -17397189.91 0.0277 0.0210
 Saturn -52343-02-15 10:33 J -17396812.29 -17396812.06 -17396811.82 0.0274 0.0063
 Jupiter -52337-02-26 12:57 J -17394610.20 -17394609.96 -17394609.73 0.0491 0.0136
 Pluto -52331-07-22 18:57 J -17392271.97 -17392271.71 -17392271.44 0.0080 0.0001
 Saturn -52328-08-17 23:01 J -17391149.79 -17391149.54 -17391149.29 0.0286 0.0008
 Saturn -52327-08-31 10:04 J -17390771.10 -17390771.08 -17390771.02 0.0289 0.0285
 Jupiter -52325-03-01 23:30 J -17390222.72 -17390222.52 -17390222.31 0.0492 0.0222
 Uranus -52316-03-04 21:06 J -17386932.86 -17386932.62 -17386932.35 0.0145 0.0040
 Uranus -52315-03-10 04:04 J -17386562.51 -17386562.33 -17386562.13 0.0145 0.0091
 Saturn -52314-02-10 00:28 J -17386225.73 -17386225.48 -17386225.24 0.0275 0.0057
 Saturn -52313-02-22 17:45 J -17385847.92 -17385847.76 -17385847.60 0.0272 0.0207
 Jupiter -52308-08-29 18:13 J -17383832.94 -17383832.74 -17383832.54 0.0536 0.0278
 Saturn -52299-08-12 12:28 J -17380563.19 -17380562.98 -17380562.77 0.0284 0.0129
 Saturn -52298-08-26 05:01 J -17380184.48 -17380184.29 -17380184.09 0.0288 0.0160
 Neptune -52296-01-23 15:49 J -17379667.98 -17379667.84 -17379667.67 0.0089 0.0071
 Jupiter -52296-09-03 22:04 J -17379444.77 -17379444.58 -17379444.38 0.0536 0.0262
 Neptune -52295-01-26 07:40 J -17379300.35 -17379300.18 -17379299.96 0.0089 0.0057
 Neptune -52294-01-28 13:40 J -17378933.17 -17378932.93 -17378932.67 0.0089 0.0027
 Neptune -52293-01-31 08:23 J -17378565.40 -17378565.15 -17378564.89 0.0089 0.0012
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 Saturn -52284-02-17 00:57 J -17375260.69 -17375260.46 -17375260.22 0.0274 0.0097
 Uranus -52273-09-05 02:09 J -17371042.61 -17371042.41 -17371042.19 0.0133 0.0077
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 Saturn -52269-08-19 06:28 J -17369598.48 -17369598.23 -17369597.98 0.0286 0.0023

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 Saturn -52254-02-24 08:23 J -17364296.25 -17364296.15 -17364296.02 0.0272 0.0238
 Jupiter -52254-02-25 18:57 J -17364294.91 -17364294.71 -17364294.50 0.0491 0.0193
 Jupiter -52242-03-02 06:57 J -17359907.44 -17359907.21 -17359906.97 0.0491 0.0158
 Saturn -52240-08-14 02:37 J -17359011.61 -17359011.39 -17359011.17 0.0285 0.0098
 Saturn -52239-08-27 18:13 J -17358632.91 -17358632.74 -17358632.55 0.0288 0.0192
 Uranus -52232-03-05 07:40 J -17356251.42 -17356251.18 -17356250.92 0.0145 0.0045
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 Saturn -52226-02-06 17:16 J -17354086.99 -17354086.78 -17354086.56 0.0277 0.0139
 Saturn -52225-02-19 08:23 J -17353709.37 -17353709.15 -17353708.92 0.0273 0.0130
 Jupiter -52225-08-28 23:01 J -17353517.71 -17353517.54 -17353517.38 0.0537 0.0355
 Mars -52216-01-17 15:21 J -17350454.01 -17350453.86 -17350453.71 0.1840 0.1191
 Neptune -52214-07-28 21:06 J -17349531.69 -17349531.62 -17349531.49 0.0089 0.0081
 Neptune -52213-07-30 05:45 J -17349164.43 -17349164.26 -17349164.08 0.0089 0.0066
 Jupiter -52213-09-03 03:35 J -17349129.56 -17349129.35 -17349129.12 0.0536 0.0200
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 Saturn -52211-08-08 05:16 J -17348425.41 -17348425.28 -17348425.11 0.0283 0.0228
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 Saturn -52197-01-31 23:01 J -17343500.59 -17343500.54 -17343500.47 0.0278 0.0268
 Saturn -52196-02-13 01:11 J -17343122.69 -17343122.45 -17343122.21 0.0275 0.0009
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 Mars -52191-07-23 08:23 J -17341136.31 -17341136.15 -17341135.99 0.1700 0.0841
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 Saturn -52181-08-15 11:01 J -17337460.28 -17337460.04 -17337459.80 0.0285 0.0069

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 Saturn -52152-08-09 09:21 J -17326874.26 -17326874.11 -17326873.93 0.0283 0.0204
 Saturn -52151-08-22 23:30 J -17326495.75 -17326495.52 -17326495.30 0.0287 0.0083
 Uranus -52148-03-05 17:30 J -17325570.02 -17325569.77 -17325569.51 0.0145 0.0027
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 Uranus -52147-03-11 01:54 J -17325199.58 -17325199.42 -17325199.22 0.0145 0.0102
 Jupiter -52142-08-29 03:06 J -17323202.51 -17323202.37 -17323202.22 0.0537 0.0421
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 Mars -52137-01-21 10:33 J -17321596.17 -17321596.06 -17321595.94 0.1833 0.1401
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 Neptune -52130-01-28 03:06 J -17319032.58 -17319032.37 -17319032.13 0.0089 0.0044
 Jupiter -52130-09-02 22:47 J -17318814.77 -17318814.55 -17318814.33 0.0536 0.0110
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 Neptune -52125-02-08 12:42 J -17317195.10 -17317194.97 -17317194.82 0.0089 0.0074
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 Saturn -52121-08-29 22:04 J -17315530.69 -17315530.58 -17315530.44 0.0289 0.0247
 Mars -52112-07-25 23:16 J -17312278.68 -17312278.53 -17312278.38 0.1705 0.1145
 Saturn -52108-02-09 00:13 J -17310984.72 -17310984.49 -17310984.24 0.0276 0.0084
 Saturn -52107-02-21 21:06 J -17310606.78 -17310606.62 -17310606.43 0.0273 0.0184
 Uranus -52105-09-06 03:35 J -17309679.58 -17309679.35 -17309679.12 0.0133 0.0061
 Uranus -52104-09-10 09:49 J -17309310.31 -17309310.09 -17309309.86 0.0134 0.0054

Saturn -52093-08-10 15:49 J -17305323.01 -17305322.84 -17305322.65 0.0283 0.0184
 Saturn -52092-08-24 05:59 J -17304944.47 -17304944.25 -17304944.03 0.0287 0.0105
 Jupiter -52088-02-24 02:52 J -17303664.56 -17303664.38 -17303664.20 0.0490 0.0304
 Pluto -52083-07-23 20:52 J -17301688.85 -17301688.63 -17301688.40 0.0080 0.0035
 Saturn -52079-02-03 15:06 J -17300398.01 -17300397.87 -17300397.71 0.0278 0.0217
 Saturn -52078-02-16 10:33 J -17300020.30 -17300020.06 -17300019.80 0.0275 0.0059
 Jupiter -52076-02-28 20:23 J -17299276.88 -17299276.65 -17299276.41 0.0491 0.0046
 Jupiter -52064-03-04 23:30 J -17294889.65 -17294889.52 -17294889.40 0.0492 0.0415
 Uranus -52064-03-06 06:57 J -17294888.46 -17294888.21 -17294887.95 0.0145 0.0030
 Uranus -52063-03-11 16:04 J -17294517.97 -17294517.83 -17294517.66 0.0145 0.0115
 Saturn -52063-08-18 08:37 J -17294358.39 -17294358.14 -17294357.89 0.0285 0.0029
 Saturn -52062-08-31 23:16 J -17293979.60 -17293979.53 -17293979.44 0.0289 0.0271
 Jupiter -52059-08-28 01:11 J -17292887.52 -17292887.45 -17292887.38 0.0537 0.0505
 Saturn -52049-02-11 04:33 J -17289433.54 -17289433.31 -17289433.08 0.0276 0.0062
 Neptune -52049-07-29 17:45 J -17289263.90 -17289263.76 -17289263.60 0.0089 0.0072
 Saturn -52048-02-23 03:35 J -17289055.50 -17289055.35 -17289055.18 0.0273 0.0204
 Neptune -52048-07-31 22:33 J -17288896.76 -17288896.56 -17288896.35 0.0089 0.0052
 Neptune -52047-08-03 16:47 J -17288529.03 -17288528.80 -17288528.54 0.0089 0.0028
 Jupiter -52047-09-02 10:33 J -17288499.29 -17288499.06 -17288498.83 0.0537 0.0060
 Neptune -52046-08-05 22:18 J -17288161.82 -17288161.57 -17288161.32 0.0089 0.0008
 Neptune -52045-08-07 14:23 J -17287794.16 -17287793.90 -17287793.64 0.0089 0.0018
 Neptune -52044-08-09 23:16 J -17287426.75 -17287426.53 -17287426.30 0.0089 0.0038
 Neptune -52043-08-12 10:33 J -17287059.24 -17287059.06 -17287058.87 0.0089 0.0063
 Neptune -52042-08-14 23:45 J -17286691.59 -17286691.51 -17286691.41 0.0089 0.0082
 Saturn -52034-08-12 20:52 J -17283771.82 -17283771.63 -17283771.43 0.0283 0.0166
 Saturn -52033-08-25 06:13 J -17283393.46 -17283393.24 -17283393.01 0.0286 0.0126
 Uranus -52021-09-06 14:52 J -17278998.12 -17278997.88 -17278997.62 0.0133 0.0041
 Saturn -52020-02-04 12:57 J -17278847.13 -17278846.96 -17278846.77 0.0278 0.0195
 Uranus -52020-09-10 22:18 J -17278628.79 -17278628.57 -17278628.34 0.0134 0.0052
 Saturn -52019-02-17 06:28 J -17278469.47 -17278469.23 -17278468.99 0.0275 0.0078

Jupiter -52005-02-24 20:23 J -17273348.81 -17273348.65 -17273348.47 0.0490 0.0342

Saturn -52004-08-19 08:52 J -17272807.36 -17272807.13 -17272806.89 0.0285 0.0010

52ND MILLENNIUM BCE

This is a list of transits of Moon in the 52nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-51993-02-28 20:52 J		-17268961.87	-17268961.63	-17268961.39	0.0490	0.0005	
Saturn	-51990-02-12 07:25 J		-17267882.43	-17267882.19	-17267881.95	0.0276	0.0042	
Saturn	-51989-02-25 02:23 J		-17267504.53	-17267504.40	-17267504.24	0.0273	0.0221	
Mars	-51986-07-22 09:35 J		-17266261.16	-17266261.10	-17266261.04	0.1688	0.1593	
Jupiter	-51981-03-04 13:11 J		-17264574.09	-17264573.95	-17264573.80	0.0491	0.0380	
Uranus	-51980-03-06 18:28 J		-17264206.99	-17264206.73	-17264206.47	0.0145	0.0009	
Uranus	-51979-03-12 04:18 J		-17263836.46	-17263836.32	-17263836.17	0.0145	0.0118	
Saturn	-51975-08-13 17:59 J		-17262220.96	-17262220.75	-17262220.53	0.0283	0.0148	
Saturn	-51974-08-27 00:28 J		-17261842.69	-17261842.48	-17261842.26	0.0286	0.0144	
Neptune	-51967-01-24 22:18 J		-17259499.69	-17259499.57	-17259499.38	0.0089	0.0072	
Neptune	-51966-01-27 04:33 J		-17259132.50	-17259132.31	-17259132.12	0.0089	0.0057	
Neptune	-51965-01-29 21:06 J		-17258764.86	-17258764.62	-17258764.35	0.0089	0.0027	
Neptune	-51964-01-31 05:45 J		-17258397.50	-17258397.26	-17258397.00	0.0089	0.0012	
Jupiter	-51964-09-01 12:57 J		-17258184.19	-17258183.96	-17258183.72	0.0537	0.0021	
Neptune	-51963-02-02 18:28 J		-17258029.99	-17258029.73	-17258029.47	0.0089	0.0019	
Neptune	-51962-02-05 07:54 J		-17257662.39	-17257662.17	-17257661.93	0.0089	0.0035	
Saturn	-51961-02-06 06:28 J		-17257296.42	-17257296.23	-17257296.02	0.0278	0.0173	

Neptune -51961-02-07 15:49 J -17257294.99 -17257294.84 -17257294.63 0.0089 0.0065
 Neptune -51960-02-09 09:35 J -17256927.18 -17256927.10 -17256926.96 0.0089 0.0080
 Saturn -51960-02-18 05:01 J -17256918.51 -17256918.29 -17256918.06 0.0275 0.0097
 Jupiter -51952-09-06 19:40 J -17253795.75 -17253795.68 -17253795.59 0.0536 0.0500
 Saturn -51946-08-07 23:45 J -17251634.54 -17251634.51 -17251634.45 0.0282 0.0276
 Saturn -51945-08-20 11:45 J -17251256.25 -17251256.01 -17251255.77 0.0285 0.0009
 Uranus -51937-09-07 02:23 J -17248316.63 -17248316.40 -17248316.14 0.0133 0.0047
 Uranus -51936-09-11 10:33 J -17247947.26 -17247947.06 -17247946.84 0.0134 0.0069
 Saturn -51931-02-13 05:01 J -17246331.54 -17246331.29 -17246331.04 0.0276 0.0023
 Saturn -51930-02-25 19:25 J -17245953.80 -17245953.69 -17245953.54 0.0273 0.0235
 Pluto -51923-01-20 03:49 J -17243433.60 -17243433.34 -17243433.08 0.0064 0.0003
 Jupiter -51922-02-23 23:30 J -17243033.67 -17243033.52 -17243033.37 0.0489 0.0384
 Saturn -51916-08-14 12:57 J -17240670.17 -17240669.96 -17240669.73 0.0283 0.0129
 Saturn -51915-08-27 22:33 J -17240291.75 -17240291.56 -17240291.36 0.0286 0.0166
 Jupiter -51910-02-28 13:54 J -17238646.14 -17238645.92 -17238645.69 0.0490 0.0044
 Mars -51907-07-24 12:57 J -17237404.13 -17237403.96 -17237403.80 0.1693 0.0621
 Saturn -51902-02-07 04:04 J -17235745.52 -17235745.33 -17235745.13 0.0278 0.0156
 Saturn -51901-02-20 06:28 J -17235367.45 -17235367.23 -17235367.01 0.0275 0.0113
 Jupiter -51898-03-04 21:21 J -17234258.77 -17234258.61 -17234258.43 0.0491 0.0350
 Uranus -51897-03-02 08:23 J -17233895.22 -17233895.15 -17233895.07 0.0146 0.0139
 Uranus -51896-03-07 05:30 J -17233525.53 -17233525.27 -17233525.01 0.0145 0.0016
 Uranus -51895-03-12 15:35 J -17233154.95 -17233154.85 -17233154.73 0.0145 0.0130
 Saturn -51887-08-09 02:09 J -17230083.49 -17230083.41 -17230083.30 0.0282 0.0259
 Saturn -51886-08-22 10:18 J -17229705.32 -17229705.07 -17229704.83 0.0285 0.0029
 Neptune -51885-07-28 18:57 J -17229363.79 -17229363.71 -17229363.58 0.0089 0.0081
 Neptune -51884-07-31 13:25 J -17228996.09 -17228995.94 -17228995.75 0.0089 0.0067
 Neptune -51883-08-02 19:40 J -17228628.90 -17228628.68 -17228628.44 0.0089 0.0035
 Neptune -51882-08-05 10:47 J -17228261.30 -17228261.05 -17228260.78 0.0089 0.0021
 Neptune -51881-08-06 20:23 J -17227893.89 -17227893.65 -17227893.39 0.0089 0.0011
 Jupiter -51881-08-31 23:59 J -17227868.73 -17227868.50 -17227868.28 0.0537 0.0044

Neptune -51880-08-09 06:42 J -17227526.47 -17227526.22 -17227525.95 0.0089 0.0025
 Neptune -51879-08-11 20:52 J -17227158.80 -17227158.63 -17227158.42 0.0089 0.0056
 Neptune -51878-08-14 02:52 J -17226791.51 -17226791.38 -17226791.19 0.0089 0.0070
 Saturn -51872-02-13 21:06 J -17224780.88 -17224780.62 -17224780.37 0.0276 0.0008
 Saturn -51871-02-26 14:37 J -17224402.96 -17224402.89 -17224402.78 0.0273 0.0253
 Jupiter -51869-09-05 20:52 J -17223480.76 -17223480.63 -17223480.49 0.0537 0.0436
 Saturn -51857-08-15 13:40 J -17219119.15 -17219118.93 -17219118.70 0.0283 0.0108
 Saturn -51856-08-29 02:52 J -17218740.54 -17218740.38 -17218740.20 0.0286 0.0191
 Mars -51853-01-21 05:01 J -17217865.48 -17217865.29 -17217865.10 0.1843 0.0733
 Uranus -51853-09-07 12:28 J -17217635.22 -17217634.98 -17217634.71 0.0133 0.0029
 Uranus -51852-09-11 21:35 J -17217265.81 -17217265.60 -17217265.38 0.0134 0.0064
 Saturn -51843-02-08 06:13 J -17214194.45 -17214194.24 -17214194.03 0.0278 0.0139
 Saturn -51842-02-21 05:45 J -17213816.47 -17213816.26 -17213816.03 0.0275 0.0130
 Jupiter -51839-02-23 15:49 J -17212717.94 -17212717.84 -17212717.73 0.0490 0.0430
 Pluto -51835-07-25 05:45 J -17211105.42 -17211105.26 -17211105.08 0.0080 0.0062
 Mars -51828-07-26 15:06 J -17208546.99 -17208546.87 -17208546.74 0.1698 0.1223
 Saturn -51828-08-10 03:21 J -17208532.49 -17208532.36 -17208532.23 0.0282 0.0237
 Jupiter -51827-02-27 23:01 J -17208330.78 -17208330.54 -17208330.30 0.0490 0.0078
 Saturn -51827-08-23 06:13 J -17208154.49 -17208154.24 -17208153.99 0.0285 0.0053
 Jupiter -51815-03-04 07:54 J -17203943.34 -17203943.17 -17203943.00 0.0490 0.0324
 Saturn -51814-02-02 15:49 J -17203607.91 -17203607.84 -17203607.76 0.0280 0.0266
 Saturn -51813-02-15 16:04 J -17203230.07 -17203229.83 -17203229.58 0.0276 0.0010
 Saturn -51812-02-27 15:35 J -17202851.90 -17202851.85 -17202851.80 0.0273 0.0267
 Uranus -51812-03-07 13:11 J -17202844.20 -17202843.95 -17202843.69 0.0145 0.0002
 Uranus -51811-03-12 23:30 J -17202473.62 -17202473.52 -17202473.38 0.0145 0.0127
 Neptune -51802-01-26 17:16 J -17199231.97 -17199231.78 -17199231.59 0.0089 0.0062
 Neptune -51801-01-29 02:52 J -17198864.59 -17198864.38 -17198864.15 0.0089 0.0043
 Neptune -51800-01-30 14:52 J -17198497.14 -17198496.88 -17198496.61 0.0089 0.0016
 Neptune -51799-02-02 05:16 J -17198129.53 -17198129.28 -17198129.03 0.0089 0.0003
 Neptune -51798-02-04 11:59 J -17197762.23 -17197762.00 -17197761.73 0.0089 0.0030

Saturn -51798-08-17 19:40 J -17197567.90 -17197567.68 -17197567.45 0.0283 0.0083
 Jupiter -51798-09-01 00:42 J -17197553.70 -17197553.47 -17197553.23 0.0538 0.0103
 Neptune -51797-02-07 06:13 J -17197394.45 -17197394.24 -17197394.02 0.0089 0.0048
 Saturn -51797-08-30 07:25 J -17197189.33 -17197189.19 -17197189.02 0.0286 0.0216
 Neptune -51796-02-08 10:47 J -17197027.15 -17197027.05 -17197026.89 0.0089 0.0076
 Jupiter -51786-09-06 07:40 J -17193165.33 -17193165.18 -17193165.02 0.0537 0.0386
 Saturn -51784-02-09 05:30 J -17192643.48 -17192643.27 -17192643.03 0.0278 0.0121
 Saturn -51783-02-22 00:28 J -17192265.69 -17192265.48 -17192265.25 0.0275 0.0144
 Uranus -51770-09-04 22:47 J -17187322.60 -17187322.55 -17187322.45 0.0133 0.0126
 Saturn -51769-08-11 01:11 J -17186981.60 -17186981.45 -17186981.28 0.0282 0.0215
 Uranus -51769-09-07 23:01 J -17186953.78 -17186953.54 -17186953.28 0.0133 0.0036
 Saturn -51768-08-24 06:28 J -17186603.46 -17186603.23 -17186603.00 0.0285 0.0078
 Uranus -51768-09-12 08:37 J -17186584.31 -17186584.14 -17186583.92 0.0134 0.0081
 Jupiter -51756-02-23 00:13 J -17182402.55 -17182402.49 -17182402.41 0.0489 0.0467
 Saturn -51755-02-03 13:54 J -17182057.02 -17182056.92 -17182056.80 0.0279 0.0248
 Saturn -51754-02-16 19:11 J -17181678.94 -17181678.70 -17181678.46 0.0276 0.0024
 Jupiter -51744-02-27 08:52 J -17178015.35 -17178015.13 -17178014.91 0.0489 0.0113
 Saturn -51739-08-19 03:21 J -17176016.60 -17176016.36 -17176016.12 0.0283 0.0057
 Saturn -51738-09-01 10:18 J -17175638.20 -17175638.07 -17175637.94 0.0286 0.0244
 Jupiter -51732-03-03 19:54 J -17173627.86 -17173627.67 -17173627.47 0.0490 0.0289
 Uranus -51729-03-02 23:59 J -17172532.59 -17172532.50 -17172532.39 0.0146 0.0134
 Uranus -51728-03-07 21:06 J -17172162.88 -17172162.62 -17172162.37 0.0145 0.0011
 Uranus -51727-03-13 07:25 J -17171792.26 -17171792.19 -17171792.09 0.0145 0.0136
 Saturn -51725-02-11 02:09 J -17171092.64 -17171092.41 -17171092.16 0.0278 0.0103
 Saturn -51724-02-22 21:35 J -17170714.80 -17170714.60 -17170714.40 0.0275 0.0160
 Neptune -51720-07-30 16:33 J -17169095.93 -17169095.81 -17169095.64 0.0089 0.0073
 Neptune -51719-08-02 06:57 J -17168728.40 -17168728.21 -17168727.97 0.0089 0.0051
 Neptune -51718-08-04 18:13 J -17168360.97 -17168360.74 -17168360.49 0.0089 0.0027
 Neptune -51717-08-06 04:18 J -17167993.58 -17167993.32 -17167993.05 0.0089 0.0005
 Neptune -51716-08-08 19:25 J -17167625.93 -17167625.69 -17167625.44 0.0089 0.0019

Neptune -51715-08-11 01:11 J -17167258.68 -17167258.45 -17167258.22 0.0089 0.0041
 Jupiter -51715-08-31 08:09 J -17167238.37 -17167238.16 -17167237.95 0.0537 0.0170
 Neptune -51714-08-13 18:42 J -17166890.86 -17166890.72 -17166890.53 0.0089 0.0067
 Neptune -51713-08-14 23:01 J -17166523.56 -17166523.54 -17166523.46 0.0089 0.0087
 Saturn -51710-08-13 04:04 J -17165430.50 -17165430.33 -17165430.14 0.0282 0.0191
 Saturn -51709-08-25 14:23 J -17165052.11 -17165051.90 -17165051.68 0.0285 0.0107
 Jupiter -51703-09-05 11:59 J -17162850.20 -17162850.00 -17162849.80 0.0537 0.0297
 Mars -51702-07-22 22:04 J -17162529.66 -17162529.58 -17162529.49 0.1681 0.1515
 Saturn -51696-02-04 18:57 J -17160505.84 -17160505.71 -17160505.57 0.0279 0.0227
 Saturn -51695-02-17 23:16 J -17160127.76 -17160127.53 -17160127.28 0.0276 0.0045
 Uranus -51685-09-08 08:52 J -17156272.39 -17156272.13 -17156271.88 0.0133 0.0017
 Uranus -51684-09-12 18:57 J -17155902.90 -17155902.71 -17155902.49 0.0134 0.0074
 Saturn -51680-08-20 08:52 J -17154465.38 -17154465.13 -17154464.88 0.0283 0.0026
 Saturn -51679-09-02 14:09 J -17154086.96 -17154086.91 -17154086.84 0.0286 0.0277
 Pluto -51675-01-21 08:52 J -17152850.37 -17152850.13 -17152849.86 0.0064 0.0015
 Pluto -51674-01-23 03:35 J -17152483.44 -17152483.35 -17152483.26 0.0064 0.0060
 Saturn -51666-02-12 03:21 J -17149541.59 -17149541.36 -17149541.11 0.0278 0.0080
 Saturn -51665-02-25 03:49 J -17149163.52 -17149163.34 -17149163.16 0.0275 0.0182
 Jupiter -51661-02-27 18:57 J -17147699.94 -17147699.71 -17147699.48 0.0490 0.0163
 Saturn -51651-08-14 15:49 J -17143879.03 -17143878.84 -17143878.64 0.0282 0.0160
 Saturn -51650-08-28 03:06 J -17143500.57 -17143500.37 -17143500.16 0.0286 0.0138
 Jupiter -51649-03-02 22:04 J -17143312.78 -17143312.58 -17143312.38 0.0490 0.0251
 Uranus -51644-03-08 04:33 J -17141481.57 -17141481.31 -17141481.06 0.0145 0.0007
 Uranus -51643-03-13 15:06 J -17141110.98 -17141110.87 -17141110.76 0.0145 0.0130
 Neptune -51638-01-25 23:59 J -17139331.63 -17139331.50 -17139331.33 0.0089 0.0071
 Neptune -51637-01-28 10:47 J -17138964.25 -17138964.05 -17138963.84 0.0089 0.0056
 Saturn -51637-02-07 02:37 J -17138954.56 -17138954.39 -17138954.22 0.0279 0.0199
 Neptune -51636-01-30 02:09 J -17138596.65 -17138596.41 -17138596.17 0.0089 0.0025
 Saturn -51636-02-19 01:11 J -17138576.69 -17138576.45 -17138576.19 0.0276 0.0068
 Neptune -51635-02-01 09:06 J -17138229.38 -17138229.12 -17138228.86 0.0089 0.0010

Neptune -51634-02-04 03:35 J -17137861.59 -17137861.35 -17137861.09 0.0089 0.0022
 Neptune -51633-02-06 08:37 J -17137494.37 -17137494.14 -17137493.90 0.0089 0.0037
 Neptune -51632-02-08 03:35 J -17137126.51 -17137126.35 -17137126.18 0.0089 0.0068
 Jupiter -51632-08-30 04:47 J -17136923.51 -17136923.30 -17136923.10 0.0538 0.0274
 Neptune -51631-02-10 09:35 J -17136759.16 -17136759.10 -17136758.99 0.0089 0.0084
 Mars -51623-07-25 13:54 J -17133672.11 -17133671.92 -17133671.73 0.1687 0.0462
 Saturn -51622-08-09 13:40 J -17133291.94 -17133291.93 -17133291.90 0.0280 0.0280
 Saturn -51621-08-21 15:21 J -17132914.11 -17132913.86 -17132913.61 0.0283 0.0008
 Jupiter -51620-09-04 04:18 J -17132535.53 -17132535.32 -17132535.11 0.0538 0.0199
 Saturn -51607-02-13 12:13 J -17127990.22 -17127989.99 -17127989.75 0.0277 0.0052
 Saturn -51606-02-26 14:09 J -17127612.06 -17127611.91 -17127611.74 0.0274 0.0207
 Uranus -51602-09-05 19:54 J -17125959.78 -17125959.67 -17125959.54 0.0133 0.0117
 Uranus -51601-09-08 18:42 J -17125590.97 -17125590.72 -17125590.47 0.0133 0.0027
 Uranus -51600-09-13 05:59 J -17125221.42 -17125221.25 -17125221.06 0.0134 0.0091
 Saturn -51592-08-16 06:57 J -17122327.42 -17122327.21 -17122326.99 0.0283 0.0126
 Saturn -51591-08-29 14:37 J -17121949.07 -17121948.89 -17121948.68 0.0286 0.0173
 Pluto -51587-07-26 17:30 J -17120521.88 -17120521.77 -17120521.64 0.0080 0.0071
 Pluto -51586-07-28 20:23 J -17120154.68 -17120154.65 -17120154.57 0.0080 0.0078
 Saturn -51578-02-08 08:52 J -17117403.33 -17117403.13 -17117402.93 0.0279 0.0171
 Jupiter -51578-02-26 19:54 J -17117384.88 -17117384.67 -17117384.46 0.0489 0.0210
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 Mars -51569-01-20 06:57 J -17114135.40 -17114135.21 -17114135.02 0.1854 0.0340
 Jupiter -51566-03-03 11:45 J -17112997.22 -17112997.01 -17112996.80 0.0490 0.0213
 Saturn -51563-08-10 22:18 J -17111740.69 -17111740.57 -17111740.45 0.0281 0.0246
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 Neptune -51555-08-01 17:45 J -17108827.92 -17108827.76 -17108827.59 0.0089 0.0065

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 Jupiter -51537-09-03 13:25 J -17102220.17 -17102219.94 -17102219.71 0.0537 0.0115
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Saturn -51474-08-20 05:16 J -17079224.53 -17079224.28 -17079224.03 0.0283 0.0051
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 Pluto -51091-07-29 23:01 J -16939354.61 -16939354.54 -16939354.44 0.0080 0.0076
 Saturn -51091-08-23 21:35 J -16939329.85 -16939329.60 -16939329.36 0.0283 0.0005
 Pluto -51090-07-31 22:47 J -16938987.66 -16938987.55 -16938987.37 0.0080 0.0067
 Saturn -51077-02-16 03:21 J -16934405.61 -16934405.36 -16934405.11 0.0278 0.0068

Saturn -51076-02-27 23:30 J -16934027.68 -16934027.52 -16934027.35 0.0275 0.0202
 Jupiter -51068-02-27 10:04 J -16931106.31 -16931106.08 -16931105.85 0.0489 0.0113
 Neptune -51062-08-02 17:01 J -16928758.93 -16928758.79 -16928758.60 0.0088 0.0069
 Saturn -51062-08-17 23:16 J -16928743.73 -16928743.53 -16928743.31 0.0281 0.0138
 Neptune -51061-08-03 22:47 J -16928391.75 -16928391.55 -16928391.32 0.0089 0.0044
 Saturn -51061-08-30 08:09 J -16928365.34 -16928365.16 -16928364.96 0.0284 0.0170
 Neptune -51060-08-06 15:21 J -16928024.12 -16928023.86 -16928023.60 0.0089 0.0020
 Neptune -51059-08-08 23:45 J -16927656.75 -16927656.51 -16927656.25 0.0089 0.0005
 Neptune -51058-08-11 10:47 J -16927289.30 -16927289.05 -16927288.79 0.0089 0.0027
 Uranus -51057-03-05 13:25 J -16927082.10 -16927081.94 -16927081.76 0.0145 0.0110
 Neptune -51057-08-13 00:13 J -16926921.69 -16926921.49 -16926921.28 0.0089 0.0051
 Jupiter -51056-03-04 02:09 J -16926718.61 -16926718.41 -16926718.21 0.0489 0.0254
 Uranus -51056-03-10 17:45 J -16926712.00 -16926711.76 -16926711.51 0.0145 0.0016
 Neptune -51056-08-15 06:28 J -16926554.34 -16926554.23 -16926554.06 0.0089 0.0075
 Mars -51055-07-27 02:37 J -16926208.56 -16926208.39 -16926208.21 0.1674 0.0255
 Saturn -51048-02-09 08:09 J -16923819.32 -16923819.16 -16923819.00 0.0280 0.0205
 Saturn -51047-02-22 12:57 J -16923441.19 -16923440.96 -16923440.72 0.0277 0.0072
 Jupiter -51039-08-30 08:52 J -16920330.27 -16920330.13 -16920329.99 0.0538 0.0418
 Saturn -51033-08-11 17:01 J -16918156.83 -16918156.79 -16918156.72 0.0280 0.0272
 Saturn -51032-08-24 17:59 J -16917779.00 -16917778.75 -16917778.50 0.0283 0.0028
 Jupiter -51027-09-04 18:42 J -16915941.94 -16915941.72 -16915941.49 0.0538 0.0134
 Saturn -51018-02-16 22:18 J -16912854.81 -16912854.57 -16912854.33 0.0278 0.0055
 Saturn -51017-02-29 23:59 J -16912476.63 -16912476.50 -16912476.35 0.0275 0.0220
 Uranus -51014-09-08 10:04 J -16911190.24 -16911190.08 -16911189.90 0.0133 0.0101
 Uranus -51013-09-11 10:04 J -16910821.32 -16910821.08 -16910820.83 0.0133 0.0014
 Uranus -51012-09-15 20:37 J -16910451.78 -16910451.64 -16910451.47 0.0134 0.0105
 Saturn -51003-08-19 02:37 J -16907192.61 -16907192.39 -16907192.18 0.0281 0.0113
 Saturn -51002-09-01 11:30 J -16906814.18 -16906814.02 -16906813.84 0.0284 0.0194

51ST MILLENNIUM BCE

This is a list of transits of Moon in the 51st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-50989-02-11 07:54 J	-16902268.33	-16902268.17	-16902267.97	0.0280	0.0189		
Saturn	-50988-02-23 07:54 J	-16901890.41	-16901890.17	-16901889.93	0.0277	0.0087		
Jupiter	-50985-02-28 04:47 J	-16900790.52	-16900790.30	-16900790.07	0.0489	0.0147		
Neptune	-50980-01-27 20:23 J	-16898994.81	-16898994.65	-16898994.46	0.0089	0.0066		
Neptune	-50979-01-30 05:16 J	-16898627.48	-16898627.28	-16898627.07	0.0089	0.0051		
Neptune	-50978-02-01 18:13 J	-16898260.00	-16898259.74	-16898259.48	0.0089	0.0018		
Neptune	-50977-02-04 07:54 J	-16897892.42	-16897892.17	-16897891.92	0.0089	0.0003		
Neptune	-50976-02-05 15:35 J	-16897525.09	-16897524.85	-16897524.58	0.0089	0.0030		
Mars	-50976-07-29 06:57 J	-16897351.29	-16897351.21	-16897351.13	0.1678	0.1527		
Neptune	-50975-02-08 09:21 J	-16897157.33	-16897157.11	-16897156.89	0.0089	0.0045		
Neptune	-50974-02-10 14:09 J	-16896790.00	-16896789.91	-16896789.76	0.0089	0.0079		
Saturn	-50974-08-13 12:42 J	-16896606.07	-16896605.97	-16896605.84	0.0280	0.0246		
Jupiter	-50973-03-03 06:42 J	-16896403.43	-16896403.22	-16896403.00	0.0489	0.0216		
Uranus	-50973-03-05 22:04 J	-16896400.74	-16896400.58	-16896400.41	0.0145	0.0114		
Saturn	-50973-08-25 12:57 J	-16896228.20	-16896227.96	-16896227.71	0.0283	0.0053		
Uranus	-50972-03-11 02:52 J	-16896030.61	-16896030.38	-16896030.13	0.0145	0.0035		
Saturn	-50959-02-17 22:04 J	-16891303.82	-16891303.58	-16891303.35	0.0278	0.0037		
Saturn	-50958-03-03 01:54 J	-16890925.54	-16890925.42	-16890925.29	0.0275	0.0236		
Jupiter	-50956-08-29 18:13 J	-16890014.83	-16890014.74	-16890014.64	0.0539	0.0488		
Saturn	-50944-08-20 07:25 J	-16885641.42	-16885641.19	-16885640.96	0.0281	0.0087		

Jupiter -50944-09-03 17:59 J -16885626.98 -16885626.75 -16885626.52 0.0539 0.0082
 Saturn -50943-09-02 11:16 J -16885263.18 -16885263.03 -16885262.85 0.0284 0.0216
 Pluto -50931-01-26 08:52 J -16881099.36 -16881099.13 -16881098.88 0.0064 0.0026
 Pluto -50930-01-27 18:28 J -16880732.91 -16880732.73 -16880732.55 0.0064 0.0044
 Saturn -50930-02-12 02:37 J -16880717.59 -16880717.39 -16880717.19 0.0280 0.0172
 Uranus -50930-09-08 17:30 J -16880508.95 -16880508.77 -16880508.57 0.0133 0.0090
 Saturn -50929-02-25 00:42 J -16880339.70 -16880339.47 -16880339.23 0.0277 0.0103
 Uranus -50929-09-11 18:57 J -16880139.96 -16880139.71 -16880139.47 0.0133 0.0005
 Uranus -50928-09-16 04:33 J -16879770.40 -16879770.31 -16879770.19 0.0134 0.0122
 Mars -50922-01-23 07:40 J -16877815.37 -16877815.18 -16877814.99 0.1865 0.0302
 Saturn -50915-08-14 09:06 J -16875055.26 -16875055.12 -16875054.96 0.0280 0.0220
 Saturn -50914-08-27 13:40 J -16874677.15 -16874676.93 -16874676.69 0.0283 0.0078
 Jupiter -50902-02-27 09:06 J -16870475.34 -16870475.12 -16870474.89 0.0488 0.0182
 Saturn -50900-02-18 22:33 J -16869752.80 -16869752.56 -16869752.32 0.0278 0.0022
 Saturn -50899-03-03 22:33 J -16869374.66 -16869374.56 -16869374.46 0.0275 0.0253
 Neptune -50898-08-01 22:33 J -16868858.68 -16868858.56 -16868858.41 0.0088 0.0074
 Neptune -50897-08-03 13:54 J -16868491.10 -16868490.92 -16868490.70 0.0089 0.0059
 Neptune -50896-08-05 23:45 J -16868123.73 -16868123.51 -16868123.26 0.0089 0.0027
 Neptune -50895-08-08 11:01 J -16867756.30 -16867756.04 -16867755.77 0.0089 0.0011
 Neptune -50894-08-11 01:25 J -16867388.67 -16867388.44 -16867388.19 0.0089 0.0022
 Neptune -50893-08-12 07:40 J -16867021.40 -16867021.18 -16867020.93 0.0089 0.0038
 Neptune -50892-08-15 01:11 J -16866653.59 -16866653.45 -16866653.28 0.0089 0.0071
 Neptune -50891-08-17 04:47 J -16866286.33 -16866286.30 -16866286.20 0.0089 0.0086
 Jupiter -50890-03-03 22:33 J -16866087.78 -16866087.56 -16866087.35 0.0489 0.0174
 Uranus -50889-03-06 07:11 J -16865719.37 -16865719.20 -16865718.99 0.0145 0.0102
 Uranus -50888-03-11 13:54 J -16865349.16 -16865348.92 -16865348.67 0.0145 0.0027
 Saturn -50885-08-21 07:54 J -16864090.42 -16864090.17 -16864089.93 0.0281 0.0059
 Saturn -50884-09-03 08:37 J -16863712.26 -16863712.14 -16863712.00 0.0284 0.0243
 Jupiter -50873-08-28 20:23 J -16859699.65 -16859699.65 -16859699.64 0.0539 0.0539
 Saturn -50871-02-12 20:37 J -16859166.84 -16859166.64 -16859166.43 0.0280 0.0157

Saturn -50870-02-25 23:59 J -16858788.71 -16858788.50 -16858788.28 0.0277 0.0124
 Jupiter -50861-09-03 06:42 J -16855311.44 -16855311.22 -16855310.99 0.0538 0.0039
 Saturn -50856-08-15 13:11 J -16853504.11 -16853503.95 -16853503.77 0.0280 0.0195
 Saturn -50855-08-28 20:09 J -16853125.87 -16853125.66 -16853125.43 0.0283 0.0106
 Mars -50850-07-26 03:49 J -16851333.51 -16851333.34 -16851333.17 0.1664 0.0884
 Uranus -50846-09-09 01:40 J -16849827.59 -16849827.43 -16849827.23 0.0133 0.0094
 Uranus -50845-09-12 03:49 J -16849458.58 -16849458.34 -16849458.09 0.0133 0.0019
 Uranus -50844-09-16 12:13 J -16849089.12 -16849088.99 -16849088.83 0.0134 0.0112
 Pluto -50843-07-31 09:49 J -16848771.13 -16848771.09 -16848770.98 0.0080 0.0078
 Pluto -50842-08-02 22:18 J -16848403.65 -16848403.57 -16848403.48 0.0080 0.0075
 Saturn -50841-02-20 20:23 J -16848201.91 -16848201.65 -16848201.40 0.0278 0.0004
 Saturn -50840-03-04 15:35 J -16847823.86 -16847823.85 -16847823.82 0.0275 0.0274
 Saturn -50826-08-23 06:57 J -16842539.46 -16842539.21 -16842538.96 0.0281 0.0028
 Saturn -50825-09-04 11:16 J -16842161.09 -16842161.03 -16842160.96 0.0284 0.0272
 Jupiter -50819-02-26 22:47 J -16840159.74 -16840159.55 -16840159.34 0.0488 0.0231
 Neptune -50816-01-27 05:01 J -16839094.35 -16839094.29 -16839094.16 0.0089 0.0082
 Neptune -50815-01-29 17:16 J -16838726.97 -16838726.78 -16838726.56 0.0089 0.0057
 Neptune -50814-02-01 06:57 J -16838359.42 -16838359.21 -16838358.96 0.0089 0.0034
 Neptune -50813-02-03 14:37 J -16837992.15 -16837991.89 -16837991.62 0.0089 0.0009
 Neptune -50812-02-05 08:37 J -16837624.39 -16837624.14 -16837623.89 0.0089 0.0015
 Saturn -50812-02-13 21:21 J -16837615.81 -16837615.61 -16837615.40 0.0280 0.0138
 Neptune -50811-02-07 13:40 J -16837257.15 -16837256.93 -16837256.69 0.0089 0.0041
 Saturn -50811-02-27 04:04 J -16837237.54 -16837237.33 -16837237.13 0.0277 0.0146
 Neptune -50810-02-10 08:37 J -16836889.31 -16836889.14 -16836888.94 0.0089 0.0064
 Jupiter -50807-03-03 07:11 J -16835772.44 -16835772.20 -16835771.96 0.0489 0.0119
 Uranus -50805-03-06 16:04 J -16835038.00 -16835037.83 -16835037.63 0.0145 0.0103
 Uranus -50804-03-11 23:16 J -16834667.75 -16834667.53 -16834667.28 0.0145 0.0045
 Saturn -50797-08-16 21:21 J -16831952.80 -16831952.61 -16831952.41 0.0280 0.0166
 Saturn -50796-08-30 01:25 J -16831574.65 -16831574.44 -16831574.22 0.0283 0.0134
 Saturn -50783-02-08 15:21 J -16827028.93 -16827028.86 -16827028.78 0.0281 0.0267

Saturn -50782-02-21 16:33 J -16826651.07 -16826650.81 -16826650.56 0.0278 0.0018
 Jupiter -50778-09-03 01:11 J -16824996.69 -16824996.45 -16824996.21 0.0539 0.0056
 Mars -50771-07-28 13:25 J -16822476.12 -16822475.94 -16822475.75 0.1669 0.0076
 Saturn -50767-08-24 12:57 J -16820988.20 -16820987.96 -16820987.72 0.0281 0.0002
 Jupiter -50766-09-08 06:57 J -16820608.29 -16820608.21 -16820608.11 0.0539 0.0494
 Uranus -50762-09-09 08:37 J -16819146.33 -16819146.14 -16819145.93 0.0133 0.0086
 Uranus -50761-09-12 11:59 J -16818777.24 -16818777.00 -16818776.76 0.0133 0.0011
 Uranus -50760-09-16 19:25 J -16818407.76 -16818407.69 -16818407.60 0.0134 0.0127
 Saturn -50753-02-16 05:01 J -16816064.50 -16816064.29 -16816064.07 0.0280 0.0115
 Saturn -50752-02-28 08:09 J -16815686.34 -16815686.16 -16815685.95 0.0277 0.0170
 Saturn -50738-08-19 05:01 J -16810401.50 -16810401.29 -16810401.07 0.0280 0.0136
 Saturn -50737-08-31 04:47 J -16810023.50 -16810023.30 -16810023.09 0.0283 0.0165
 Jupiter -50736-02-26 07:40 J -16809844.38 -16809844.18 -16809843.98 0.0488 0.0280
 Neptune -50734-08-01 14:23 J -16808957.92 -16808957.90 -16808957.85 0.0088 0.0088
 Neptune -50733-08-03 01:11 J -16808590.62 -16808590.45 -16808590.29 0.0088 0.0066
 Neptune -50732-08-05 10:47 J -16808223.27 -16808223.05 -16808222.79 0.0089 0.0040
 Neptune -50731-08-08 01:54 J -16807855.66 -16807855.42 -16807855.17 0.0089 0.0017
 Neptune -50730-08-10 08:09 J -16807488.42 -16807488.16 -16807487.90 0.0089 0.0010
 Neptune -50729-08-12 01:54 J -16807120.64 -16807120.42 -16807120.17 0.0089 0.0033
 Neptune -50728-08-14 06:28 J -16806753.43 -16806753.23 -16806753.04 0.0089 0.0057
 Neptune -50727-08-16 23:30 J -16806385.60 -16806385.52 -16806385.38 0.0089 0.0081
 Saturn -50724-02-09 14:09 J -16805478.03 -16805477.91 -16805477.79 0.0281 0.0244
 Jupiter -50724-03-02 12:57 J -16805457.19 -16805456.96 -16805456.73 0.0488 0.0074
 Saturn -50723-02-22 17:45 J -16805100.00 -16805099.76 -16805099.52 0.0278 0.0043
 Uranus -50721-03-06 23:45 J -16804356.69 -16804356.51 -16804356.30 0.0145 0.0095
 Uranus -50720-03-12 08:23 J -16803986.39 -16803986.15 -16803985.90 0.0145 0.0035
 Jupiter -50712-03-07 03:06 J -16801069.45 -16801069.37 -16801069.29 0.0489 0.0458
 Saturn -50709-08-12 20:09 J -16799814.73 -16799814.66 -16799814.58 0.0279 0.0263
 Saturn -50708-08-26 01:25 J -16799436.67 -16799436.44 -16799436.20 0.0282 0.0034
 Jupiter -50695-09-02 06:57 J -16794681.43 -16794681.21 -16794680.99 0.0539 0.0122

Saturn -50694-02-17 12:57 J -16794513.19 -16794512.96 -16794512.71 0.0279 0.0087
 Saturn -50693-03-01 11:01 J -16794135.21 -16794135.04 -16794134.85 0.0276 0.0198
 Pluto -50683-01-27 23:01 J -16790515.77 -16790515.54 -16790515.29 0.0064 0.0021
 Jupiter -50683-09-07 13:54 J -16790293.07 -16790292.92 -16790292.77 0.0538 0.0416
 Pluto -50682-01-29 11:16 J -16790149.18 -16790149.03 -16790148.82 0.0064 0.0048
 Saturn -50679-08-20 10:47 J -16788850.27 -16788850.05 -16788849.80 0.0281 0.0103
 Saturn -50678-09-02 11:59 J -16788472.17 -16788472.00 -16788471.83 0.0284 0.0199
 Uranus -50678-09-09 16:47 J -16788464.99 -16788464.80 -16788464.60 0.0133 0.0087
 Uranus -50677-09-12 20:37 J -16788095.87 -16788095.64 -16788095.39 0.0133 0.0023
 Uranus -50676-09-17 02:52 J -16787726.50 -16787726.38 -16787726.25 0.0134 0.0117
 Saturn -50665-02-11 20:37 J -16783926.78 -16783926.64 -16783926.48 0.0280 0.0216
 Saturn -50664-02-24 04:04 J -16783548.56 -16783548.33 -16783548.10 0.0277 0.0074
 Jupiter -50653-02-26 11:59 J -16779529.17 -16779529.00 -16779528.84 0.0488 0.0334
 Neptune -50651-01-29 07:11 J -16778826.35 -16778826.20 -16778826.00 0.0089 0.0064
 Neptune -50650-01-31 14:23 J -16778459.11 -16778458.90 -16778458.67 0.0089 0.0048
 Saturn -50650-08-15 10:33 J -16778263.18 -16778263.06 -16778262.91 0.0279 0.0228
 Neptune -50649-02-03 08:37 J -16778091.39 -16778091.14 -16778090.88 0.0089 0.0014
 Saturn -50649-08-27 16:04 J -16777885.06 -16777884.83 -16777884.59 0.0282 0.0071
 Neptune -50648-02-04 13:40 J -16777724.19 -16777723.93 -16777723.68 0.0089 0.0002
 Neptune -50647-02-07 08:09 J -16777356.39 -16777356.16 -16777355.91 0.0089 0.0035
 Neptune -50646-02-09 14:23 J -16776989.11 -16776988.90 -16776988.70 0.0089 0.0050
 Neptune -50645-02-12 05:59 J -16776621.33 -16776621.25 -16776621.15 0.0089 0.0083
 Jupiter -50641-03-01 23:01 J -16775141.78 -16775141.54 -16775141.30 0.0488 0.0008
 Mars -50638-01-22 09:35 J -16774085.30 -16774085.10 -16774084.90 0.1875 0.0684
 Uranus -50637-03-07 05:45 J -16773675.43 -16773675.26 -16773675.04 0.0145 0.0098
 Uranus -50636-03-12 15:06 J -16773305.09 -16773304.87 -16773304.62 0.0145 0.0049
 Saturn -50635-02-18 18:57 J -16772961.96 -16772961.71 -16772961.46 0.0279 0.0052
 Saturn -50634-03-03 16:18 J -16772583.95 -16772583.82 -16772583.68 0.0276 0.0230
 Jupiter -50629-03-05 23:30 J -16770754.66 -16770754.52 -16770754.38 0.0489 0.0394
 Saturn -50620-08-21 19:25 J -16767298.93 -16767298.69 -16767298.45 0.0281 0.0066

Saturn -50619-09-04 01:40 J -16766920.56 -16766920.43 -16766920.29 0.0284 0.0234
 Jupiter -50612-09-01 07:11 J -16764366.42 -16764366.20 -16764365.98 0.0539 0.0214
 Saturn -50606-02-13 10:33 J -16762375.23 -16762375.06 -16762374.88 0.0280 0.0181
 Saturn -50605-02-26 17:30 J -16761997.00 -16761996.77 -16761996.55 0.0277 0.0107
 Jupiter -50600-09-06 00:42 J -16759978.65 -16759978.47 -16759978.27 0.0539 0.0291
 Pluto -50595-08-02 10:33 J -16758187.17 -16758187.06 -16758186.91 0.0080 0.0070
 Uranus -50594-09-09 23:01 J -16757783.72 -16757783.54 -16757783.31 0.0133 0.0083
 Uranus -50593-09-13 05:01 J -16757414.53 -16757414.29 -16757414.04 0.0133 0.0017
 Uranus -50592-09-17 09:49 J -16757045.11 -16757045.09 -16757045.02 0.0134 0.0132
 Saturn -50591-08-17 02:09 J -16756711.58 -16756711.41 -16756711.22 0.0280 0.0191
 Saturn -50590-08-30 03:49 J -16756333.56 -16756333.34 -16756333.10 0.0282 0.0108
 Saturn -50576-02-20 04:18 J -16751410.57 -16751410.32 -16751410.07 0.0279 0.0018
 Saturn -50575-03-05 05:30 J -16751032.31 -16751032.27 -16751032.20 0.0276 0.0268
 Jupiter -50570-02-25 20:23 J -16749213.78 -16749213.65 -16749213.51 0.0488 0.0405
 Neptune -50569-08-02 09:49 J -16748690.23 -16748690.09 -16748689.91 0.0088 0.0071
 Neptune -50568-08-05 01:54 J -16748322.61 -16748322.42 -16748322.22 0.0089 0.0055
 Neptune -50567-08-07 07:40 J -16747955.42 -16747955.18 -16747954.92 0.0089 0.0022
 Mars -50566-07-26 19:40 J -16747601.85 -16747601.68 -16747601.51 0.1658 0.0801
 Neptune -50566-08-10 02:09 J -16747587.66 -16747587.41 -16747587.15 0.0089 0.0007
 Neptune -50565-08-11 06:28 J -16747220.46 -16747220.23 -16747219.97 0.0089 0.0028
 Neptune -50564-08-14 00:28 J -16746852.70 -16746852.48 -16746852.24 0.0089 0.0043
 Neptune -50563-08-16 06:42 J -16746485.32 -16746485.22 -16746485.07 0.0089 0.0077
 Saturn -50561-08-23 10:18 J -16745747.31 -16745747.07 -16745746.84 0.0281 0.0029
 Saturn -50560-09-05 19:11 J -16745368.75 -16745368.70 -16745368.63 0.0284 0.0273
 Jupiter -50558-03-01 19:54 J -16744826.90 -16744826.67 -16744826.43 0.0488 0.0057
 Uranus -50553-03-07 12:28 J -16742994.16 -16742993.98 -16742993.77 0.0145 0.0094
 Uranus -50552-03-12 22:47 J -16742623.79 -16742623.55 -16742623.31 0.0145 0.0038
 Saturn -50547-02-15 01:54 J -16740823.62 -16740823.42 -16740823.20 0.0280 0.0147
 Saturn -50546-02-28 03:35 J -16740445.57 -16740445.35 -16740445.13 0.0277 0.0142
 Jupiter -50546-03-06 11:59 J -16740439.16 -16740439.00 -16740438.84 0.0489 0.0349

Saturn -50532-08-18 13:25 J -16735160.15 -16735159.94 -16735159.72 0.0280 0.0153
 Saturn -50531-08-31 12:57 J -16734782.16 -16734781.96 -16734781.73 0.0283 0.0147
 Jupiter -50529-08-30 19:11 J -16734051.87 -16734051.70 -16734051.52 0.0539 0.0342
 Saturn -50518-02-09 13:54 J -16730236.98 -16730236.92 -16730236.85 0.0281 0.0271
 Saturn -50517-02-22 19:25 J -16729858.93 -16729858.69 -16729858.45 0.0278 0.0020
 Jupiter -50517-09-05 08:09 J -16729663.37 -16729663.16 -16729662.94 0.0539 0.0197
 Uranus -50510-09-10 07:11 J -16727102.38 -16727102.20 -16727101.97 0.0133 0.0082
 Uranus -50509-09-13 14:09 J -16726733.15 -16726732.91 -16726732.67 0.0133 0.0028
 Uranus -50508-09-17 17:30 J -16726363.85 -16726363.77 -16726363.65 0.0134 0.0124
 Saturn -50502-08-26 03:49 J -16724195.58 -16724195.34 -16724195.11 0.0282 0.0011
 Saturn -50488-02-16 14:52 J -16719272.11 -16719271.88 -16719271.65 0.0279 0.0111
 Neptune -50487-01-28 12:57 J -16718926.06 -16718925.96 -16718925.81 0.0089 0.0078
 Jupiter -50487-02-24 17:45 J -16718898.82 -16718898.76 -16718898.70 0.0488 0.0470
 Saturn -50487-03-01 12:13 J -16718894.18 -16718893.99 -16718893.79 0.0276 0.0179
 Mars -50487-07-29 08:09 J -16718744.36 -16718744.16 -16718743.95 0.1663 0.0205
 Neptune -50486-01-31 07:40 J -16718558.37 -16718558.18 -16718557.97 0.0089 0.0054
 Neptune -50485-02-02 12:42 J -16718191.21 -16718190.97 -16718190.72 0.0089 0.0029
 Neptune -50484-02-04 07:11 J -16717823.46 -16717823.20 -16717822.93 0.0089 0.0005
 Neptune -50483-02-06 13:40 J -16717456.17 -16717455.93 -16717455.68 0.0089 0.0020
 Neptune -50482-02-09 05:01 J -16717088.50 -16717088.29 -16717088.04 0.0089 0.0046
 Neptune -50481-02-11 16:04 J -16716720.97 -16716720.83 -16716720.67 0.0089 0.0070
 Jupiter -50475-03-01 07:54 J -16714511.39 -16714511.17 -16714510.94 0.0488 0.0118
 Saturn -50473-08-19 21:06 J -16713608.83 -16713608.62 -16713608.38 0.0281 0.0117
 Saturn -50472-09-02 00:42 J -16713230.65 -16713230.47 -16713230.29 0.0283 0.0186
 Uranus -50469-03-07 20:23 J -16712312.84 -16712312.65 -16712312.45 0.0145 0.0092
 Uranus -50468-03-13 06:28 J -16711942.46 -16711942.23 -16711941.99 0.0145 0.0052
 Jupiter -50463-03-05 06:57 J -16710124.40 -16710124.21 -16710124.00 0.0488 0.0276
 Saturn -50459-02-11 05:45 J -16708685.39 -16708685.26 -16708685.13 0.0281 0.0236
 Saturn -50458-02-24 13:25 J -16708307.17 -16708306.94 -16708306.71 0.0278 0.0056
 Jupiter -50446-08-31 03:06 J -16703736.51 -16703736.37 -16703736.22 0.0539 0.0413

Saturn -50444-08-14 13:54 J -16703022.01 -16703021.92 -16703021.82 0.0279 0.0253
 Saturn -50443-08-27 17:16 J -16702644.03 -16702643.78 -16702643.54 0.0282 0.0046
 Pluto -50435-01-29 21:06 J -16699931.88 -16699931.62 -16699931.36 0.0064 0.0014
 Pluto -50434-01-31 09:21 J -16699565.19 -16699565.11 -16699565.03 0.0064 0.0061
 Jupiter -50434-09-04 23:45 J -16699348.74 -16699348.51 -16699348.28 0.0539 0.0098
 Saturn -50429-02-18 23:16 J -16697720.77 -16697720.53 -16697720.28 0.0279 0.0077
 Saturn -50428-03-02 23:01 J -16697342.69 -16697342.54 -16697342.38 0.0276 0.0212
 Uranus -50426-09-10 14:37 J -16696421.09 -16696420.89 -16696420.66 0.0133 0.0078
 Uranus -50425-09-13 23:01 J -16696051.77 -16696051.54 -16696051.29 0.0133 0.0025
 Saturn -50414-08-22 07:11 J -16692057.43 -16692057.20 -16692056.97 0.0281 0.0083
 Saturn -50413-09-03 15:21 J -16691679.01 -16691678.86 -16691678.72 0.0284 0.0220
 Neptune -50405-08-02 01:40 J -16688789.47 -16688789.43 -16688789.33 0.0088 0.0085
 Neptune -50404-08-04 06:57 J -16688422.36 -16688422.21 -16688422.00 0.0089 0.0064
 Neptune -50403-08-07 01:54 J -16688054.65 -16688054.42 -16688054.18 0.0089 0.0036
 Neptune -50402-08-09 06:13 J -16687687.48 -16687687.24 -16687686.98 0.0089 0.0014
 Neptune -50401-08-10 23:45 J -16687319.77 -16687319.51 -16687319.25 0.0089 0.0014
 Saturn -50400-02-12 23:45 J -16687133.67 -16687133.51 -16687133.34 0.0281 0.0202
 Neptune -50400-08-13 06:42 J -16686952.44 -16686952.22 -16686951.99 0.0089 0.0037
 Saturn -50399-02-26 04:47 J -16686755.53 -16686755.30 -16686755.06 0.0277 0.0089
 Neptune -50399-08-15 20:23 J -16686584.83 -16686584.65 -16686584.45 0.0089 0.0063
 Neptune -50398-08-18 08:09 J -16686217.20 -16686217.16 -16686217.08 0.0089 0.0086
 Jupiter -50392-02-28 04:18 J -16684196.54 -16684196.32 -16684196.10 0.0488 0.0191
 Uranus -50385-03-08 05:59 J -16681631.44 -16681631.25 -16681631.03 0.0145 0.0087
 Saturn -50385-08-16 01:11 J -16681470.59 -16681470.45 -16681470.29 0.0279 0.0222
 Uranus -50384-03-13 16:47 J -16681261.03 -16681260.80 -16681260.55 0.0145 0.0047
 Saturn -50384-08-28 23:45 J -16681092.75 -16681092.51 -16681092.26 0.0282 0.0078
 Jupiter -50380-03-04 14:37 J -16679809.09 -16679808.89 -16679808.69 0.0488 0.0222
 Saturn -50370-02-20 08:52 J -16676169.37 -16676169.13 -16676168.89 0.0279 0.0044
 Saturn -50369-03-04 12:42 J -16675791.06 -16675790.97 -16675790.85 0.0276 0.0247
 Jupiter -50363-08-29 14:37 J -16673421.93 -16673421.89 -16673421.84 0.0539 0.0527

Saturn -50355-08-23 18:28 J -16670505.95 -16670505.73 -16670505.49 0.0281 0.0054
 Mars -50354-01-21 16:04 J -16670354.90 -16670354.83 -16670354.76 0.1884 0.1739
 Saturn -50354-09-06 03:21 J -16670127.46 -16670127.36 -16670127.24 0.0284 0.0252
 Jupiter -50351-09-04 00:57 J -16669033.68 -16669033.46 -16669033.23 0.0539 0.0017
 Pluto -50347-08-04 03:49 J -16667603.55 -16667603.34 -16667603.10 0.0080 0.0041
 Uranus -50342-09-10 23:45 J -16665739.72 -16665739.51 -16665739.29 0.0133 0.0072
 Saturn -50341-02-15 12:13 J -16665582.17 -16665581.99 -16665581.78 0.0280 0.0171
 Uranus -50341-09-14 08:37 J -16665370.37 -16665370.14 -16665369.90 0.0133 0.0035
 Saturn -50340-02-27 12:42 J -16665204.19 -16665203.97 -16665203.74 0.0277 0.0123
 Uranus -50340-09-18 10:18 J -16665001.10 -16665001.07 -16665001.03 0.0134 0.0132
 Jupiter -50339-09-09 01:40 J -16664645.52 -16664645.43 -16664645.31 0.0539 0.0481
 Saturn -50326-08-18 05:59 J -16659919.43 -16659919.25 -16659919.06 0.0279 0.0190
 Saturn -50325-08-30 04:33 J -16659541.53 -16659541.31 -16659541.08 0.0282 0.0110
 Neptune -50322-01-30 11:30 J -16658658.20 -16658658.02 -16658657.83 0.0089 0.0061
 Neptune -50321-02-02 05:45 J -16658290.48 -16658290.26 -16658290.02 0.0089 0.0045
 Neptune -50320-02-03 12:57 J -16657923.20 -16657922.96 -16657922.70 0.0089 0.0011
 Neptune -50319-02-06 03:35 J -16657555.62 -16657555.35 -16657555.08 0.0089 0.0006
 Neptune -50318-02-08 14:23 J -16657188.11 -16657187.90 -16657187.66 0.0089 0.0040
 Neptune -50317-02-10 23:45 J -16656820.69 -16656820.51 -16656820.27 0.0089 0.0056
 Saturn -50311-02-21 21:21 J -16654617.85 -16654617.61 -16654617.37 0.0279 0.0012
 Jupiter -50309-02-28 13:25 J -16653881.14 -16653880.94 -16653880.74 0.0488 0.0246
 Uranus -50301-03-08 16:33 J -16650950.01 -16650949.81 -16650949.58 0.0145 0.0080
 Uranus -50300-03-14 03:06 J -16650579.59 -16650579.37 -16650579.13 0.0145 0.0064
 Jupiter -50297-03-03 21:06 J -16649493.85 -16649493.62 -16649493.39 0.0488 0.0172
 Saturn -50296-08-25 03:35 J -16648954.59 -16648954.35 -16648954.11 0.0281 0.0023
 Saturn -50295-09-07 07:54 J -16648576.21 -16648576.17 -16648576.12 0.0284 0.0279
 Saturn -50282-02-16 17:30 J -16644030.99 -16644030.77 -16644030.55 0.0280 0.0139
 Mars -50282-07-28 04:04 J -16643869.50 -16643869.33 -16643869.17 0.1654 0.0540
 Saturn -50281-02-29 16:33 J -16643653.01 -16643652.81 -16643652.59 0.0277 0.0154
 Mars -50275-01-24 19:40 J -16641496.88 -16641496.68 -16641496.48 0.1878 0.0507

Jupiter -50268-09-03 00:28 J -16638718.71 -16638718.48 -16638718.24 0.0540 0.0086
 Saturn -50267-08-19 07:40 J -16638368.38 -16638368.18 -16638367.98 0.0279 0.0160
 Saturn -50266-09-01 11:01 J -16637990.24 -16637990.04 -16637989.82 0.0282 0.0137
 Uranus -50258-09-11 07:11 J -16635058.41 -16635058.20 -16635057.97 0.0133 0.0071
 Uranus -50257-09-14 17:45 J -16634688.99 -16634688.76 -16634688.52 0.0133 0.0033
 Jupiter -50256-09-08 07:25 J -16634330.33 -16634330.19 -16634330.05 0.0539 0.0415
 Saturn -50253-02-10 21:06 J -16633444.63 -16633444.62 -16633444.60 0.0282 0.0281
 Saturn -50252-02-23 06:57 J -16633066.46 -16633066.21 -16633065.97 0.0279 0.0018
 Neptune -50240-08-04 00:42 J -16628521.61 -16628521.47 -16628521.28 0.0088 0.0069
 Neptune -50239-08-06 05:59 J -16628154.44 -16628154.25 -16628154.03 0.0089 0.0052
 Neptune -50238-08-08 23:01 J -16627786.78 -16627786.54 -16627786.27 0.0089 0.0019
 Neptune -50237-08-10 07:11 J -16627419.45 -16627419.20 -16627418.95 0.0089 0.0002
 Saturn -50237-08-26 05:59 J -16627403.51 -16627403.25 -16627403.00 0.0281 0.0006
 Neptune -50236-08-12 19:25 J -16627051.93 -16627051.69 -16627051.42 0.0089 0.0031
 Neptune -50235-08-15 07:40 J -16626684.37 -16626684.18 -16626683.96 0.0089 0.0048
 Neptune -50234-08-17 15:21 J -16626316.95 -16626316.86 -16626316.74 0.0089 0.0081
 Jupiter -50226-02-27 19:40 J -16623565.87 -16623565.68 -16623565.49 0.0488 0.0295
 Saturn -50223-02-17 18:28 J -16622479.95 -16622479.73 -16622479.50 0.0280 0.0114
 Saturn -50222-03-02 22:33 J -16622101.73 -16622101.56 -16622101.38 0.0277 0.0183
 Uranus -50217-03-09 02:52 J -16620268.58 -16620268.38 -16620268.15 0.0145 0.0076
 Uranus -50216-03-14 13:54 J -16619898.15 -16619897.92 -16619897.69 0.0145 0.0060
 Jupiter -50214-03-04 00:57 J -16619178.67 -16619178.46 -16619178.23 0.0488 0.0128
 Saturn -50208-08-20 12:13 J -16616817.19 -16616816.99 -16616816.78 0.0279 0.0135
 Saturn -50207-09-02 17:59 J -16616438.93 -16616438.75 -16616438.54 0.0282 0.0164
 Mars -50203-07-30 03:21 J -16615012.54 -16615012.36 -16615012.17 0.1658 0.0372
 Saturn -50194-02-12 03:49 J -16611893.42 -16611893.34 -16611893.24 0.0282 0.0258
 Saturn -50193-02-25 08:52 J -16611515.38 -16611515.13 -16611514.88 0.0278 0.0043
 Pluto -50187-01-31 20:52 J -16609347.88 -16609347.63 -16609347.38 0.0064 0.0003
 Jupiter -50185-09-02 05:16 J -16608403.49 -16608403.28 -16608403.07 0.0539 0.0172
 Saturn -50179-08-15 05:45 J -16606230.33 -16606230.26 -16606230.18 0.0278 0.0265

Saturn -50178-08-28 01:54 J -16605852.67 -16605852.42 -16605852.17 0.0281 0.0028
 Uranus -50174-09-11 16:18 J -16604377.03 -16604376.82 -16604376.58 0.0133 0.0064
 Jupiter -50173-09-07 11:01 J -16604015.23 -16604015.04 -16604014.85 0.0539 0.0327
 Uranus -50173-09-15 03:21 J -16604007.59 -16604007.36 -16604007.12 0.0133 0.0041
 Saturn -50164-02-18 21:06 J -16600928.85 -16600928.62 -16600928.39 0.0280 0.0091
 Saturn -50163-03-04 04:33 J -16600550.45 -16600550.31 -16600550.15 0.0277 0.0210
 Neptune -50158-01-30 03:21 J -16598757.48 -16598757.36 -16598757.22 0.0089 0.0076
 Neptune -50157-02-01 10:33 J -16598390.23 -16598390.06 -16598389.83 0.0089 0.0053
 Neptune -50156-02-03 00:57 J -16598022.71 -16598022.46 -16598022.20 0.0089 0.0026
 Neptune -50155-02-05 13:40 J -16597655.18 -16597654.93 -16597654.68 0.0089 0.0002
 Neptune -50154-02-07 22:47 J -16597287.80 -16597287.55 -16597287.29 0.0089 0.0024
 Neptune -50153-02-10 15:21 J -16596920.05 -16596919.86 -16596919.63 0.0089 0.0049
 Neptune -50152-02-11 21:06 J -16596552.75 -16596552.62 -16596552.48 0.0089 0.0075
 Saturn -50149-08-21 18:42 J -16595265.94 -16595265.72 -16595265.50 0.0279 0.0110
 Saturn -50148-09-03 21:21 J -16594887.79 -16594887.61 -16594887.42 0.0282 0.0186
 Jupiter -50143-02-27 02:37 J -16593250.55 -16593250.39 -16593250.22 0.0488 0.0335
 Saturn -50135-02-13 03:06 J -16590342.50 -16590342.37 -16590342.22 0.0282 0.0236
 Saturn -50134-02-26 04:47 J -16589964.54 -16589964.30 -16589964.05 0.0279 0.0068
 Uranus -50133-03-09 12:13 J -16589587.20 -16589586.99 -16589586.76 0.0145 0.0069
 Uranus -50132-03-14 22:47 J -16589216.77 -16589216.55 -16589216.33 0.0145 0.0072
 Jupiter -50131-03-03 16:33 J -16588863.04 -16588862.81 -16588862.57 0.0488 0.0100
 Saturn -50120-08-16 00:57 J -16584679.57 -16584679.46 -16584679.33 0.0278 0.0243
 Saturn -50119-08-29 00:42 J -16584301.70 -16584301.47 -16584301.23 0.0281 0.0049
 Saturn -50105-02-21 00:42 J -16579377.70 -16579377.47 -16579377.23 0.0280 0.0069
 Saturn -50104-03-05 05:45 J -16578999.39 -16578999.26 -16578999.12 0.0277 0.0231
 Jupiter -50102-09-02 08:52 J -16578088.34 -16578088.13 -16578087.92 0.0540 0.0259
 Pluto -50099-08-06 16:18 J -16577019.08 -16577018.82 -16577018.56 0.0080 0.0005
 Saturn -50090-08-23 19:25 J -16573714.92 -16573714.69 -16573714.45 0.0279 0.0088
 Jupiter -50090-09-07 11:16 J -16573700.22 -16573700.03 -16573699.83 0.0540 0.0268
 Uranus -50090-09-12 00:57 J -16573695.68 -16573695.46 -16573695.23 0.0133 0.0064

Saturn -50089-09-04 17:30 J -16573336.95 -16573336.77 -16573336.60 0.0282 0.0205
 Uranus -50089-09-15 12:28 J -16573326.20 -16573325.98 -16573325.73 0.0133 0.0043
 Saturn -50076-02-13 21:06 J -16568791.78 -16568791.62 -16568791.46 0.0282 0.0214
 Neptune -50076-08-03 04:47 J -16568621.38 -16568621.30 -16568621.18 0.0088 0.0082
 Saturn -50075-02-27 02:09 J -16568413.63 -16568413.41 -16568413.17 0.0279 0.0091
 Neptune -50075-08-05 21:06 J -16568253.79 -16568253.62 -16568253.41 0.0088 0.0061
 Neptune -50074-08-08 05:16 J -16567886.49 -16567886.28 -16567886.03 0.0089 0.0033
 Neptune -50073-08-09 17:30 J -16567519.03 -16567518.77 -16567518.50 0.0089 0.0011
 Neptune -50072-08-12 06:57 J -16567151.44 -16567151.21 -16567150.95 0.0089 0.0019
 Neptune -50071-08-14 14:23 J -16566784.13 -16566783.90 -16566783.66 0.0089 0.0040
 Neptune -50070-08-17 07:11 J -16566416.34 -16566416.20 -16566416.02 0.0089 0.0069
 Saturn -50061-08-17 00:57 J -16563128.59 -16563128.46 -16563128.31 0.0278 0.0223
 Jupiter -50060-02-26 19:40 J -16562934.83 -16562934.68 -16562934.51 0.0488 0.0360
 Saturn -50060-08-30 04:47 J -16562750.52 -16562750.30 -16562750.06 0.0281 0.0068
 Uranus -50049-03-09 20:37 J -16558905.85 -16558905.64 -16558905.41 0.0146 0.0069
 Jupiter -50048-03-02 20:09 J -16558547.90 -16558547.66 -16558547.43 0.0488 0.0071
 Uranus -50048-03-15 06:28 J -16558535.44 -16558535.23 -16558534.98 0.0145 0.0070
 Saturn -50046-02-21 23:59 J -16557826.75 -16557826.50 -16557826.26 0.0280 0.0048
 Saturn -50045-03-05 23:59 J -16557448.60 -16557448.50 -16557448.40 0.0277 0.0254
 Jupiter -50036-03-07 11:45 J -16554160.06 -16554160.01 -16554159.95 0.0488 0.0472
 Saturn -50031-08-24 15:49 J -16552164.08 -16552163.84 -16552163.58 0.0279 0.0068
 Saturn -50030-09-06 14:37 J -16551786.03 -16551785.89 -16551785.73 0.0282 0.0224
 Jupiter -50019-09-01 13:40 J -16547773.10 -16547772.93 -16547772.74 0.0540 0.0320
 Saturn -50017-02-15 18:28 J -16547240.90 -16547240.73 -16547240.55 0.0282 0.0192
 Saturn -50016-02-28 04:04 J -16546862.54 -16546862.33 -16546862.11 0.0279 0.0115
 Jupiter -50007-09-07 01:54 J -16543384.63 -16543384.42 -16543384.21 0.0539 0.0211
 Uranus -50006-09-12 10:47 J -16543014.27 -16543014.05 -16543013.80 0.0133 0.0055
 Uranus -50005-09-15 22:47 J -16542644.77 -16542644.55 -16542644.31 0.0133 0.0049
 Saturn -50002-08-19 04:47 J -16541577.46 -16541577.30 -16541577.13 0.0278 0.0201
 Saturn -50001-08-31 06:57 J -16541199.44 -16541199.21 -16541198.97 0.0281 0.0088

50TH MILLENNIUM BCE

This is a list of transits of Moon in the 50th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-49998-07-29 11:59 J		-16540137.19	-16540137.00	-16540136.81	0.1649	0.0232	
Neptune	-49993-01-31 22:04 J		-16538489.76	-16538489.58	-16538489.37	0.0089	0.0060	
Neptune	-49992-02-02 11:01 J		-16538122.25	-16538122.04	-16538121.82	0.0089	0.0043	
Mars	-49991-01-24 11:01 J		-16537766.22	-16537766.04	-16537765.87	0.1887	0.0566	
Neptune	-49991-02-04 19:11 J		-16537754.97	-16537754.70	-16537754.44	0.0089	0.0009	
Neptune	-49990-02-07 12:28 J		-16537387.23	-16537386.98	-16537386.72	0.0089	0.0008	
Neptune	-49989-02-09 17:30 J		-16537019.98	-16537019.77	-16537019.52	0.0089	0.0043	
Neptune	-49988-02-11 12:42 J		-16536652.15	-16536651.97	-16536651.76	0.0089	0.0059	
Saturn	-49987-02-22 16:33 J		-16536276.06	-16536275.81	-16536275.55	0.0280	0.0022	
Jupiter	-49977-02-27 00:57 J		-16532619.59	-16532619.46	-16532619.30	0.0487	0.0384	
Saturn	-49972-08-25 15:49 J		-16530613.08	-16530612.84	-16530612.60	0.0279	0.0043	
Saturn	-49971-09-07 19:40 J		-16530234.79	-16530234.68	-16530234.56	0.0282	0.0246	
Jupiter	-49965-03-02 13:54 J		-16528232.14	-16528231.92	-16528231.69	0.0487	0.0042	
Uranus	-49965-03-10 05:59 J		-16528224.48	-16528224.25	-16528224.03	0.0146	0.0062	
Uranus	-49964-03-15 14:52 J		-16527854.09	-16527853.88	-16527853.65	0.0145	0.0078	
Saturn	-49958-02-16 21:21 J		-16525689.80	-16525689.61	-16525689.41	0.0282	0.0166	
Saturn	-49957-03-01 05:30 J		-16525311.47	-16525311.27	-16525311.04	0.0279	0.0140	
Jupiter	-49953-03-06 16:33 J		-16523844.92	-16523844.81	-16523844.68	0.0488	0.0427	
Saturn	-49943-08-20 09:06 J		-16520026.31	-16520026.12	-16520025.93	0.0278	0.0175	

Saturn -49942-09-02 05:30 J -16519648.50 -16519648.27 -16519648.03 0.0281 0.0110
 Pluto -49940-02-01 11:45 J -16519130.21 -16519130.01 -16519129.79 0.0064 0.0034
 Pluto -49939-02-03 00:42 J -16518763.67 -16518763.47 -16518763.22 0.0064 0.0036
 Jupiter -49936-09-01 00:42 J -16517457.63 -16517457.47 -16517457.31 0.0540 0.0395
 Saturn -49928-02-23 11:30 J -16514725.27 -16514725.02 -16514724.77 0.0280 0.0004
 Jupiter -49924-09-05 17:45 J -16513069.99 -16513069.76 -16513069.53 0.0540 0.0119
 Uranus -49922-09-12 20:09 J -16512332.88 -16512332.66 -16512332.42 0.0133 0.0056
 Uranus -49921-09-16 08:37 J -16511963.37 -16511963.14 -16511962.91 0.0133 0.0052
 Mars -49919-07-31 14:37 J -16511280.05 -16511279.89 -16511279.73 0.1653 0.0717
 Saturn -49913-08-26 21:35 J -16509061.84 -16509061.60 -16509061.37 0.0279 0.0019
 Saturn -49912-09-09 02:52 J -16508683.44 -16508683.38 -16508683.31 0.0282 0.0269
 Neptune -49911-08-05 04:18 J -16508353.46 -16508353.32 -16508353.14 0.0088 0.0068
 Neptune -49910-08-07 15:35 J -16507986.05 -16507985.85 -16507985.61 0.0088 0.0050
 Neptune -49909-08-09 05:45 J -16507618.49 -16507618.26 -16507618.00 0.0089 0.0017
 Neptune -49908-08-11 12:28 J -16507251.24 -16507250.98 -16507250.71 0.0089 0.0002
 Neptune -49907-08-14 05:59 J -16506883.48 -16506883.25 -16506883.01 0.0089 0.0035
 Neptune -49906-08-16 10:04 J -16506516.27 -16506516.08 -16506515.86 0.0089 0.0052
 Neptune -49905-08-18 04:33 J -16506148.38 -16506148.31 -16506148.24 0.0089 0.0085
 Saturn -49899-02-17 23:16 J -16504138.74 -16504138.53 -16504138.31 0.0282 0.0140
 Saturn -49898-03-03 02:23 J -16503760.60 -16503760.40 -16503760.19 0.0279 0.0167
 Jupiter -49894-02-26 17:01 J -16502303.90 -16502303.79 -16502303.68 0.0487 0.0422
 Saturn -49884-08-21 09:49 J -16498475.30 -16498475.09 -16498474.87 0.0278 0.0151
 Saturn -49883-09-03 05:16 J -16498097.49 -16498097.28 -16498097.06 0.0281 0.0134
 Jupiter -49882-03-02 19:25 J -16497916.93 -16497916.69 -16497916.45 0.0488 0.0000
 Uranus -49881-03-10 16:04 J -16497543.04 -16497542.83 -16497542.59 0.0146 0.0062
 Uranus -49880-03-16 00:28 J -16497172.68 -16497172.48 -16497172.24 0.0145 0.0080
 Saturn -49870-02-12 02:52 J -16493552.38 -16493552.38 -16493552.36 0.0283 0.0282
 Jupiter -49870-03-07 05:45 J -16493529.39 -16493529.26 -16493529.11 0.0488 0.0388
 Saturn -49869-02-25 14:23 J -16493174.13 -16493173.90 -16493173.66 0.0280 0.0031
 Saturn -49855-08-16 05:59 J -16487888.27 -16487888.25 -16487888.21 0.0277 0.0274

Saturn -49854-08-29 07:11 J -16487510.44 -16487510.20 -16487509.96 0.0279 0.0012
 Jupiter -49853-08-30 16:18 J -16487142.92 -16487142.82 -16487142.73 0.0540 0.0491
 Pluto -49852-08-07 00:57 J -16486801.51 -16486801.46 -16486801.39 0.0080 0.0078
 Pluto -49851-08-08 23:30 J -16486434.59 -16486434.52 -16486434.40 0.0080 0.0074
 Jupiter -49841-09-05 07:25 J -16482754.42 -16482754.19 -16482753.97 0.0540 0.0069
 Saturn -49840-02-18 22:04 J -16482587.81 -16482587.58 -16482587.34 0.0281 0.0112
 Saturn -49839-03-03 23:45 J -16482209.68 -16482209.51 -16482209.33 0.0278 0.0197
 Uranus -49838-09-13 07:11 J -16481651.43 -16481651.20 -16481650.95 0.0133 0.0044
 Uranus -49837-09-16 19:11 J -16481281.91 -16481281.70 -16481281.46 0.0133 0.0058
 Neptune -49829-01-31 08:23 J -16478589.27 -16478589.15 -16478589.01 0.0089 0.0075
 Neptune -49828-02-01 16:04 J -16478222.04 -16478221.83 -16478221.61 0.0089 0.0052
 Neptune -49827-02-04 09:35 J -16477854.33 -16477854.10 -16477853.84 0.0089 0.0024
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 Neptune -49825-02-09 09:35 J -16477119.34 -16477119.10 -16477118.85 0.0089 0.0027
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 Neptune -49824-02-10 14:52 J -16476752.07 -16476751.88 -16476751.65 0.0089 0.0051
 Saturn -49824-09-04 11:30 J -16476546.20 -16476546.02 -16476545.82 0.0281 0.0165
 Neptune -49823-02-13 07:25 J -16476384.29 -16476384.19 -16476384.04 0.0089 0.0078
 Saturn -49811-02-13 08:23 J -16472001.24 -16472001.15 -16472001.04 0.0282 0.0255
 Jupiter -49811-02-25 22:33 J -16471988.64 -16471988.56 -16471988.48 0.0487 0.0458
 Saturn -49810-02-26 20:23 J -16471622.88 -16471622.65 -16471622.41 0.0280 0.0061
 Jupiter -49799-03-02 07:25 J -16467601.41 -16467601.19 -16467600.96 0.0487 0.0040
 Uranus -49797-03-11 04:33 J -16466861.53 -16466861.31 -16466861.07 0.0146 0.0048
 Uranus -49796-03-16 12:13 J -16466491.19 -16466490.99 -16466490.78 0.0145 0.0091
 Saturn -49796-08-17 17:01 J -16466336.89 -16466336.79 -16466336.67 0.0277 0.0245
 Saturn -49795-08-30 14:37 J -16465959.13 -16465958.89 -16465958.64 0.0280 0.0041
 Jupiter -49787-03-06 14:37 J -16463214.07 -16463213.89 -16463213.70 0.0487 0.0321
 Saturn -49781-02-20 23:45 J -16461036.74 -16461036.51 -16461036.26 0.0281 0.0080
 Saturn -49780-03-05 05:45 J -16460658.39 -16460658.26 -16460658.11 0.0278 0.0226
 Saturn -49766-08-24 20:37 J -16455372.86 -16455372.64 -16455372.41 0.0279 0.0095

Saturn -49765-09-06 00:28 J -16454994.64 -16454994.48 -16454994.30 0.0282 0.0195
 Jupiter -49758-09-05 04:04 J -16452439.57 -16452439.33 -16452439.08 0.0540 0.0019
 Uranus -49754-09-13 17:01 J -16450970.01 -16450969.79 -16450969.54 0.0133 0.0046
 Uranus -49753-09-17 05:16 J -16450600.50 -16450600.28 -16450600.06 0.0133 0.0064
 Saturn -49752-02-14 18:13 J -16450449.89 -16450449.74 -16450449.59 0.0282 0.0223
 Saturn -49751-02-28 01:11 J -16450071.68 -16450071.45 -16450071.20 0.0279 0.0089
 Neptune -49747-08-04 10:47 J -16448453.13 -16448453.05 -16448452.91 0.0088 0.0081
 Neptune -49746-08-07 02:23 J -16448085.57 -16448085.40 -16448085.20 0.0088 0.0061
 Neptune -49745-08-08 09:06 J -16447718.36 -16447718.12 -16447717.87 0.0088 0.0030
 Neptune -49744-08-11 03:21 J -16447350.61 -16447350.36 -16447350.10 0.0089 0.0010
 Neptune -49743-08-13 07:40 J -16446983.42 -16446983.18 -16446982.92 0.0089 0.0021
 Neptune -49742-08-16 01:40 J -16446615.64 -16446615.43 -16446615.18 0.0089 0.0043
 Neptune -49741-08-17 07:25 J -16446248.30 -16446248.19 -16446248.02 0.0089 0.0073
 Saturn -49737-08-19 01:40 J -16444785.57 -16444785.43 -16444785.26 0.0277 0.0214
 Saturn -49736-08-31 20:09 J -16444407.90 -16444407.66 -16444407.41 0.0280 0.0070
 Saturn -49722-02-22 08:52 J -16439485.36 -16439485.13 -16439484.89 0.0281 0.0048
 Saturn -49721-03-06 17:45 J -16439106.84 -16439106.76 -16439106.66 0.0278 0.0258
 Jupiter -49716-03-01 14:09 J -16437286.15 -16437285.91 -16437285.67 0.0487 0.0103
 Mars -49714-07-30 03:49 J -16436405.54 -16436405.34 -16436405.14 0.1644 0.0192
 Uranus -49713-03-11 17:01 J -16436180.01 -16436179.79 -16436179.54 0.0146 0.0046
 Uranus -49712-03-16 23:59 J -16435809.69 -16435809.50 -16435809.29 0.0145 0.0096
 Mars -49707-01-24 00:13 J -16434035.58 -16434035.49 -16434035.40 0.1895 0.1686
 Saturn -49707-08-26 11:01 J -16433821.27 -16433821.04 -16433820.81 0.0279 0.0064
 Saturn -49706-09-08 13:54 J -16433443.07 -16433442.92 -16433442.78 0.0282 0.0227
 Jupiter -49704-03-05 15:21 J -16432899.06 -16432898.86 -16432898.67 0.0488 0.0259
 Saturn -49693-02-17 03:06 J -16428898.55 -16428898.37 -16428898.18 0.0282 0.0186
 Pluto -49692-02-04 00:42 J -16428545.73 -16428545.47 -16428545.20 0.0064 0.0005
 Saturn -49692-03-01 05:59 J -16428520.48 -16428520.25 -16428520.02 0.0279 0.0124
 Saturn -49678-08-21 08:37 J -16423234.32 -16423234.14 -16423233.94 0.0278 0.0182
 Saturn -49677-09-02 05:45 J -16422856.48 -16422856.26 -16422856.03 0.0281 0.0104

Jupiter -49675-09-03 21:35 J -16422124.81 -16422124.60 -16422124.38 0.0540 0.0135
 Uranus -49670-09-14 04:47 J -16420288.53 -16420288.30 -16420288.05 0.0133 0.0032
 Uranus -49669-09-17 16:33 J -16419919.02 -16419918.81 -16419918.59 0.0133 0.0069
 Neptune -49664-02-01 05:30 J -16418321.43 -16418321.27 -16418321.05 0.0089 0.0060
 Neptune -49663-02-03 10:33 J -16417954.27 -16417954.06 -16417953.82 0.0089 0.0043
 Saturn -49663-02-24 00:42 J -16417933.71 -16417933.47 -16417933.23 0.0280 0.0009
 Jupiter -49663-09-09 08:23 J -16417736.26 -16417736.15 -16417736.02 0.0540 0.0469
 Neptune -49662-02-06 05:30 J -16417586.53 -16417586.27 -16417586.01 0.0089 0.0008
 Neptune -49661-02-08 11:16 J -16417219.28 -16417219.03 -16417218.78 0.0089 0.0009
 Neptune -49660-02-10 02:37 J -16416851.60 -16416851.39 -16416851.14 0.0089 0.0044
 Neptune -49659-02-12 12:57 J -16416484.12 -16416483.96 -16416483.76 0.0089 0.0062
 Saturn -49648-08-28 00:42 J -16412269.71 -16412269.47 -16412269.23 0.0279 0.0028
 Saturn -49647-09-09 22:47 J -16411891.63 -16411891.55 -16411891.44 0.0282 0.0261
 Mars -49635-08-01 17:59 J -16407547.91 -16407547.75 -16407547.58 0.1648 0.0918
 Saturn -49634-02-18 10:04 J -16407347.29 -16407347.08 -16407346.86 0.0281 0.0146
 Jupiter -49633-02-29 14:23 J -16406971.12 -16406970.90 -16406970.68 0.0487 0.0163
 Saturn -49633-03-02 14:52 J -16406969.08 -16406968.88 -16406968.68 0.0279 0.0161
 Uranus -49629-03-12 05:45 J -16405498.50 -16405498.26 -16405498.01 0.0146 0.0031
 Mars -49628-01-27 05:45 J -16405177.32 -16405177.26 -16405177.20 0.1889 0.1769
 Uranus -49628-03-17 11:16 J -16405128.19 -16405128.03 -16405127.83 0.0145 0.0106
 Jupiter -49621-03-05 04:33 J -16402583.52 -16402583.31 -16402583.09 0.0487 0.0198
 Saturn -49619-08-22 17:59 J -16401682.95 -16401682.75 -16401682.54 0.0278 0.0147
 Saturn -49618-09-04 20:52 J -16401304.83 -16401304.63 -16401304.42 0.0281 0.0140
 Saturn -49605-02-13 07:25 J -16396760.21 -16396760.19 -16396760.17 0.0283 0.0281
 Saturn -49604-02-25 17:01 J -16396382.03 -16396381.79 -16396381.54 0.0280 0.0032
 Pluto -49604-08-09 15:06 J -16396217.13 -16396216.87 -16396216.61 0.0080 0.0013
 Jupiter -49592-09-03 02:09 J -16391809.63 -16391809.41 -16391809.19 0.0540 0.0212
 Saturn -49590-08-17 15:35 J -16391095.88 -16391095.85 -16391095.82 0.0277 0.0274
 Saturn -49589-08-29 10:33 J -16390718.31 -16390718.06 -16390717.80 0.0280 0.0008
 Uranus -49587-09-10 16:47 J -16389975.85 -16389975.80 -16389975.72 0.0133 0.0128

Uranus -49586-09-14 15:21 J -16389607.10 -16389606.86 -16389606.62 0.0133 0.0034
 Uranus -49585-09-18 01:54 J -16389237.61 -16389237.42 -16389237.19 0.0133 0.0077
 Neptune -49582-08-06 04:18 J -16388185.46 -16388185.32 -16388185.13 0.0088 0.0069
 Neptune -49581-08-07 23:16 J -16387817.73 -16387817.53 -16387817.31 0.0088 0.0050
 Neptune -49580-08-10 03:49 J -16387450.58 -16387450.34 -16387450.08 0.0089 0.0017
 Jupiter -49580-09-08 00:42 J -16387421.63 -16387421.47 -16387421.30 0.0540 0.0369
 Neptune -49579-08-12 21:49 J -16387082.85 -16387082.59 -16387082.32 0.0089 0.0003
 Neptune -49578-08-15 04:04 J -16386715.54 -16386715.33 -16386715.08 0.0089 0.0037
 Neptune -49577-08-16 18:28 J -16386347.94 -16386347.73 -16386347.52 0.0089 0.0054
 Neptune -49576-08-19 05:01 J -16385980.30 -16385980.29 -16385980.22 0.0089 0.0088
 Saturn -49575-02-19 21:49 J -16385795.81 -16385795.59 -16385795.36 0.0281 0.0107
 Saturn -49574-03-05 06:28 J -16385417.39 -16385417.23 -16385417.06 0.0278 0.0200
 Saturn -49560-08-24 08:09 J -16380131.37 -16380131.16 -16380130.94 0.0279 0.0113
 Saturn -49559-09-06 13:11 J -16379753.14 -16379752.95 -16379752.77 0.0282 0.0176
 Jupiter -49550-02-28 23:30 J -16376655.72 -16376655.52 -16376655.31 0.0487 0.0233
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 Saturn -49545-02-28 04:18 J -16374830.56 -16374830.32 -16374830.07 0.0280 0.0071
 Uranus -49545-03-12 16:18 J -16374817.05 -16374816.82 -16374816.57 0.0146 0.0033
 Uranus -49544-03-17 21:21 J -16374446.77 -16374446.61 -16374446.43 0.0145 0.0111
 Jupiter -49538-03-04 22:18 J -16372268.80 -16372268.57 -16372268.34 0.0487 0.0123
 Saturn -49531-08-18 23:59 J -16369544.61 -16369544.50 -16369544.37 0.0277 0.0243
 Saturn -49530-08-31 18:28 J -16369166.97 -16369166.73 -16369166.48 0.0280 0.0042
 Saturn -49516-02-21 14:52 J -16364244.11 -16364243.88 -16364243.65 0.0281 0.0070
 Saturn -49515-03-06 23:59 J -16363865.62 -16363865.50 -16363865.37 0.0278 0.0238
 Mars -49509-07-28 08:23 J -16361530.23 -16361530.15 -16361530.07 0.1636 0.1465
 Jupiter -49509-09-01 13:54 J -16361495.09 -16361494.92 -16361494.74 0.0540 0.0343
 Uranus -49502-09-15 03:49 J -16358925.58 -16358925.34 -16358925.09 0.0133 0.0019
 Saturn -49501-08-25 23:01 J -16358579.77 -16358579.54 -16358579.31 0.0279 0.0081
 Uranus -49501-09-18 14:09 J -16358556.10 -16358555.91 -16358555.69 0.0133 0.0080
 Neptune -49500-01-31 05:59 J -16358421.35 -16358421.25 -16358421.09 0.0089 0.0076

Saturn -49500-09-08 00:28 J -16358201.64 -16358201.48 -16358201.31 0.0282 0.0212
 Neptune -49499-02-03 00:28 J -16358053.67 -16358053.48 -16358053.25 0.0089 0.0054
 Neptune -49498-02-05 07:11 J -16357686.43 -16357686.20 -16357685.95 0.0089 0.0024
 Neptune -49497-02-07 22:18 J -16357318.84 -16357318.57 -16357318.30 0.0089 0.0001
 Jupiter -49497-09-07 00:13 J -16357106.69 -16357106.49 -16357106.28 0.0540 0.0245
 Neptune -49496-02-09 08:37 J -16356951.36 -16356951.14 -16356950.89 0.0089 0.0029
 Neptune -49495-02-11 18:13 J -16356583.94 -16356583.74 -16356583.50 0.0089 0.0051
 Neptune -49494-02-14 10:04 J -16356216.17 -16356216.08 -16356215.96 0.0089 0.0080
 Saturn -49487-02-16 12:13 J -16353657.16 -16353656.99 -16353656.82 0.0282 0.0206
 Saturn -49486-03-01 14:37 J -16353279.11 -16353278.89 -16353278.65 0.0279 0.0110
 Saturn -49472-08-20 06:28 J -16347993.38 -16347993.23 -16347993.07 0.0277 0.0214
 Saturn -49471-09-02 05:16 J -16347615.50 -16347615.28 -16347615.04 0.0280 0.0075
 Jupiter -49467-02-27 19:54 J -16346340.86 -16346340.67 -16346340.49 0.0487 0.0300
 Uranus -49461-03-13 03:35 J -16344135.60 -16344135.35 -16344135.11 0.0146 0.0019
 Uranus -49460-03-18 06:42 J -16343765.36 -16343765.22 -16343765.04 0.0146 0.0117
 Saturn -49457-02-24 06:42 J -16342692.46 -16342692.22 -16342691.98 0.0281 0.0033
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 Jupiter -49455-03-04 10:04 J -16341953.31 -16341953.08 -16341952.85 0.0487 0.0059
 Pluto -49445-02-06 02:52 J -16338327.63 -16338327.38 -16338327.11 0.0064 0.0014
 Pluto -49444-02-06 10:47 J -16337961.15 -16337961.05 -16337960.89 0.0065 0.0055
 Jupiter -49443-03-08 12:42 J -16337566.07 -16337565.97 -16337565.86 0.0488 0.0437
 Saturn -49442-08-28 08:09 J -16337028.40 -16337028.16 -16337027.91 0.0279 0.0052
 Saturn -49441-09-09 05:45 J -16336650.39 -16336650.26 -16336650.13 0.0282 0.0240
 Mars -49430-07-31 05:45 J -16332673.44 -16332673.26 -16332673.08 0.1640 0.0042
 Saturn -49428-02-17 20:37 J -16332105.83 -16332105.64 -16332105.43 0.0282 0.0170
 Saturn -49427-03-03 03:35 J -16331727.55 -16331727.35 -16331727.14 0.0279 0.0144
 Jupiter -49426-09-01 18:57 J -16331179.84 -16331179.71 -16331179.56 0.0541 0.0430
 Uranus -49419-09-11 16:04 J -16328612.96 -16328612.83 -16328612.70 0.0133 0.0114
 Neptune -49418-08-05 17:45 J -16328284.85 -16328284.76 -16328284.66 0.0088 0.0082
 Uranus -49418-09-15 15:21 J -16328244.11 -16328243.86 -16328243.62 0.0133 0.0021

Neptune -49417-08-06 22:04 J -16327917.74 -16327917.58 -16327917.38 0.0088 0.0063
 Uranus -49417-09-19 00:42 J -16327874.65 -16327874.47 -16327874.27 0.0133 0.0090
 Neptune -49416-08-09 15:49 J -16327550.08 -16327549.84 -16327549.58 0.0088 0.0030
 Neptune -49415-08-11 23:59 J -16327182.74 -16327182.50 -16327182.25 0.0088 0.0010
 Neptune -49414-08-14 13:11 J -16326815.20 -16326814.95 -16326814.68 0.0089 0.0022
 Jupiter -49414-09-06 19:40 J -16326791.90 -16326791.68 -16326791.45 0.0540 0.0166
 Neptune -49413-08-16 01:25 J -16326447.65 -16326447.44 -16326447.21 0.0089 0.0042
 Saturn -49413-08-21 15:49 J -16326442.01 -16326441.84 -16326441.66 0.0277 0.0187
 Neptune -49412-08-18 09:21 J -16326080.24 -16326080.11 -16326079.95 0.0089 0.0074
 Saturn -49412-09-03 18:28 J -16326063.95 -16326063.73 -16326063.51 0.0280 0.0103
 Saturn -49398-02-25 17:16 J -16321141.03 -16321140.78 -16321140.53 0.0280 0.0002
 Jupiter -49384-02-27 08:37 J -16316025.29 -16316025.14 -16316024.98 0.0488 0.0361
 Saturn -49383-08-29 10:33 J -16315477.31 -16315477.06 -16315476.81 0.0280 0.0027
 Saturn -49382-09-11 09:35 J -16315099.16 -16315099.10 -16315099.02 0.0282 0.0268
 Uranus -49377-03-13 13:54 J -16313454.16 -16313453.92 -16313453.67 0.0146 0.0023
 Uranus -49376-03-18 16:18 J -16313083.93 -16313083.82 -16313083.66 0.0146 0.0124
 Jupiter -49372-03-03 09:49 J -16311638.34 -16311638.09 -16311637.85 0.0487 0.0009
 Saturn -49369-02-20 05:59 J -16310554.46 -16310554.25 -16310554.04 0.0282 0.0137
 Saturn -49368-03-04 16:18 J -16310175.99 -16310175.82 -16310175.62 0.0279 0.0176
 Jupiter -49360-03-07 17:59 J -16307250.88 -16307250.75 -16307250.60 0.0487 0.0384
 Pluto -49357-08-10 15:35 J -16305999.09 -16305998.85 -16305998.58 0.0080 0.0022
 Saturn -49354-08-24 02:37 J -16304890.58 -16304890.39 -16304890.20 0.0277 0.0161
 Saturn -49353-09-05 03:35 J -16304512.57 -16304512.35 -16304512.13 0.0280 0.0128
 Mars -49351-08-02 09:21 J -16303816.25 -16303816.11 -16303815.96 0.1643 0.1119
 Mars -49344-01-26 08:52 J -16301447.35 -16301447.13 -16301446.91 0.1898 0.0303
 Jupiter -49343-08-31 15:49 J -16300864.92 -16300864.84 -16300864.75 0.0540 0.0500
 Saturn -49339-02-26 20:23 J -16299589.90 -16299589.65 -16299589.39 0.0280 0.0032
 Neptune -49335-02-02 02:09 J -16298153.57 -16298153.41 -16298153.21 0.0089 0.0062
 Uranus -49335-09-12 04:18 J -16297931.42 -16297931.32 -16297931.19 0.0133 0.0119
 Neptune -49334-02-04 15:49 J -16297786.05 -16297785.84 -16297785.59 0.0089 0.0043

Uranus -49334-09-16 04:47 J -16297562.54 -16297562.30 -16297562.05 0.0133 0.0004
 Neptune -49333-02-07 04:18 J -16297418.56 -16297418.32 -16297418.07 0.0089 0.0009
 Uranus -49333-09-19 13:54 J -16297193.09 -16297192.92 -16297192.73 0.0133 0.0094
 Neptune -49332-02-08 13:25 J -16297051.20 -16297050.94 -16297050.67 0.0089 0.0010
 Neptune -49331-02-11 05:45 J -16296683.46 -16296683.26 -16296683.02 0.0089 0.0044
 Jupiter -49331-09-06 01:11 J -16296476.67 -16296476.45 -16296476.23 0.0540 0.0074
 Neptune -49330-02-13 11:16 J -16296316.20 -16296316.03 -16296315.83 0.0089 0.0062
 Saturn -49324-08-30 12:28 J -16293926.22 -16293925.98 -16293925.73 0.0280 0.0005
 Saturn -49310-02-21 16:18 J -16289003.04 -16289002.82 -16289002.60 0.0282 0.0106
 Saturn -49309-03-06 01:11 J -16288624.60 -16288624.45 -16288624.27 0.0279 0.0206
 Jupiter -49301-02-27 11:59 J -16285710.12 -16285710.00 -16285709.87 0.0487 0.0417
 Saturn -49295-08-25 09:06 J -16283339.33 -16283339.12 -16283338.90 0.0277 0.0135
 Saturn -49294-09-07 04:47 J -16282961.51 -16282961.30 -16282961.09 0.0280 0.0152
 Uranus -49293-03-14 03:35 J -16282772.60 -16282772.35 -16282772.10 0.0146 0.0004
 Uranus -49292-03-19 04:33 J -16282402.41 -16282402.31 -16282402.17 0.0146 0.0131
 Jupiter -49289-03-02 18:28 J -16281322.95 -16281322.73 -16281322.50 0.0487 0.0065
 Saturn -49281-02-15 14:23 J -16278417.01 -16278416.90 -16278416.79 0.0283 0.0253
 Saturn -49280-02-27 21:49 J -16278038.82 -16278038.59 -16278038.34 0.0280 0.0062
 Jupiter -49277-03-07 05:16 J -16276935.45 -16276935.28 -16276935.10 0.0487 0.0337
 Saturn -49266-08-19 17:30 J -16272752.84 -16272752.77 -16272752.68 0.0277 0.0262
 Saturn -49265-08-31 17:30 J -16272375.00 -16272374.77 -16272374.53 0.0280 0.0020
 Neptune -49253-08-06 09:21 J -16268017.25 -16268017.11 -16268016.94 0.0088 0.0071
 Neptune -49252-08-08 17:59 J -16267649.96 -16267649.75 -16267649.55 0.0089 0.0051
 Saturn -49251-02-22 21:21 J -16267451.84 -16267451.61 -16267451.37 0.0282 0.0077
 Neptune -49251-08-11 05:59 J -16267282.51 -16267282.25 -16267281.99 0.0089 0.0019
 Uranus -49251-09-12 16:18 J -16267249.98 -16267249.82 -16267249.63 0.0133 0.0098
 Saturn -49250-03-08 01:54 J -16267073.56 -16267073.42 -16267073.27 0.0279 0.0231
 Neptune -49250-08-13 19:25 J -16266914.94 -16266914.69 -16266914.44 0.0089 0.0002
 Uranus -49250-09-16 17:30 J -16266881.01 -16266880.77 -16266880.52 0.0133 0.0005
 Neptune -49249-08-15 02:37 J -16266547.62 -16266547.39 -16266547.13 0.0089 0.0035

Uranus -49249-09-20 01:40 J -16266511.57 -16266511.43 -16266511.27 0.0133 0.0107
 Neptune -49248-08-17 20:23 J -16266179.84 -16266179.65 -16266179.44 0.0089 0.0055
 Jupiter -49248-09-04 21:49 J -16266161.83 -16266161.59 -16266161.35 0.0541 0.0014
 Neptune -49247-08-20 01:11 J -16265812.48 -16265812.45 -16265812.39 0.0089 0.0087
 Saturn -49236-08-26 09:06 J -16261788.34 -16261788.12 -16261787.88 0.0277 0.0113
 Jupiter -49236-09-10 07:11 J -16261773.28 -16261773.20 -16261773.13 0.0541 0.0510
 Saturn -49235-09-08 03:06 J -16261410.56 -16261410.37 -16261410.17 0.0280 0.0173
 Mars -49225-07-29 15:49 J -16257797.98 -16257797.84 -16257797.69 0.1633 0.1125
 Saturn -49222-02-16 14:23 J -16256866.04 -16256865.90 -16256865.76 0.0283 0.0228
 Saturn -49221-03-01 02:37 J -16256487.61 -16256487.39 -16256487.16 0.0280 0.0087
 Jupiter -49218-02-26 21:21 J -16255394.65 -16255394.61 -16255394.56 0.0487 0.0475
 Uranus -49210-03-10 07:11 J -16252461.29 -16252461.20 -16252461.08 0.0146 0.0133
 Uranus -49209-03-14 16:47 J -16252091.05 -16252090.80 -16252090.55 0.0146 0.0004
 Uranus -49208-03-19 17:30 J -16251720.79 -16251720.77 -16251720.71 0.0146 0.0144
 Saturn -49207-08-20 21:06 J -16251201.72 -16251201.62 -16251201.50 0.0277 0.0244
 Jupiter -49206-03-03 07:54 J -16251007.41 -16251007.17 -16251006.93 0.0487 0.0109
 Saturn -49206-09-02 21:49 J -16250823.83 -16250823.59 -16250823.36 0.0280 0.0041
 Pluto -49198-02-07 08:23 J -16248109.35 -16248109.15 -16248108.90 0.0064 0.0033
 Pluto -49197-02-08 14:37 J -16247743.04 -16247742.89 -16247742.70 0.0064 0.0048
 Jupiter -49194-03-07 08:52 J -16246620.30 -16246620.13 -16246619.94 0.0487 0.0299
 Saturn -49192-02-23 17:59 J -16245901.00 -16245900.75 -16245900.50 0.0282 0.0053
 Saturn -49191-03-08 21:06 J -16245522.70 -16245522.62 -16245522.51 0.0279 0.0256
 Saturn -49177-08-27 06:28 J -16240237.46 -16240237.23 -16240236.99 0.0277 0.0093
 Saturn -49176-09-09 05:16 J -16239859.44 -16239859.28 -16239859.11 0.0280 0.0198
 Neptune -49171-02-01 09:49 J -16238253.19 -16238253.09 -16238252.93 0.0089 0.0078
 Neptune -49170-02-03 23:01 J -16237885.72 -16237885.54 -16237885.34 0.0089 0.0057
 Neptune -49169-02-06 06:42 J -16237518.46 -16237518.22 -16237517.95 0.0089 0.0025
 Neptune -49168-02-07 23:59 J -16237150.75 -16237150.50 -16237150.24 0.0089 0.0004
 Neptune -49167-02-10 05:01 J -16236783.53 -16236783.29 -16236783.04 0.0089 0.0029
 Uranus -49167-09-13 06:13 J -16236568.40 -16236568.24 -16236568.07 0.0132 0.0101

Neptune -49166-02-12 23:45 J -16236415.72 -16236415.51 -16236415.29 0.0089 0.0050
 Uranus -49166-09-17 08:09 J -16236199.40 -16236199.16 -16236198.91 0.0133 0.0015
 Neptune -49165-02-15 04:33 J -16236048.39 -16236048.31 -16236048.19 0.0089 0.0081
 Jupiter -49165-09-04 08:09 J -16235846.38 -16235846.16 -16235845.93 0.0541 0.0071
 Uranus -49165-09-20 15:35 J -16235829.97 -16235829.85 -16235829.69 0.0133 0.0112
 Saturn -49163-02-17 17:01 J -16235314.95 -16235314.79 -16235314.63 0.0283 0.0207
 Saturn -49162-03-03 05:45 J -16234936.48 -16234936.26 -16234936.03 0.0280 0.0111
 Jupiter -49153-09-09 15:49 J -16231457.98 -16231457.84 -16231457.70 0.0540 0.0435
 Saturn -49148-08-22 01:40 J -16229650.57 -16229650.43 -16229650.29 0.0277 0.0225
 Saturn -49147-09-03 21:21 J -16229272.85 -16229272.61 -16229272.37 0.0280 0.0062
 Mars -49146-08-01 19:25 J -16228940.87 -16228940.69 -16228940.52 0.1636 0.0410
 Saturn -49133-02-25 11:59 J -16224350.24 -16224350.00 -16224349.75 0.0282 0.0030
 Saturn -49132-03-09 20:23 J -16223971.67 -16223971.65 -16223971.61 0.0279 0.0276
 Uranus -49126-03-10 22:04 J -16221779.65 -16221779.58 -16221779.48 0.0146 0.0137
 Uranus -49125-03-15 08:09 J -16221409.40 -16221409.16 -16221408.90 0.0146 0.0019
 Jupiter -49123-03-02 13:54 J -16220692.14 -16220691.92 -16220691.70 0.0487 0.0144
 Saturn -49118-08-29 07:54 J -16218686.40 -16218686.17 -16218685.94 0.0277 0.0073
 Saturn -49117-09-10 09:49 J -16218308.23 -16218308.09 -16218307.94 0.0280 0.0220
 Jupiter -49111-03-07 03:21 J -16216304.56 -16216304.36 -16216304.17 0.0487 0.0271
 Pluto -49110-08-12 21:06 J -16215780.84 -16215780.62 -16215780.35 0.0080 0.0035
 Saturn -49104-02-18 18:42 J -16213763.90 -16213763.72 -16213763.53 0.0283 0.0182
 Saturn -49103-03-04 02:23 J -16213385.61 -16213385.40 -16213385.16 0.0280 0.0131
 Neptune -49089-08-05 11:16 J -16208117.07 -16208117.03 -16208116.95 0.0088 0.0086
 Saturn -49089-08-23 00:28 J -16208099.65 -16208099.48 -16208099.31 0.0277 0.0206
 Neptune -49088-08-07 22:18 J -16207749.71 -16207749.57 -16207749.36 0.0088 0.0067
 Saturn -49088-09-04 16:33 J -16207722.05 -16207721.81 -16207721.57 0.0280 0.0080
 Neptune -49087-08-10 13:11 J -16207382.17 -16207381.95 -16207381.70 0.0089 0.0033
 Neptune -49086-08-12 19:40 J -16207014.93 -16207014.68 -16207014.41 0.0089 0.0014
 Neptune -49085-08-14 13:25 J -16206647.17 -16206646.94 -16206646.68 0.0089 0.0021
 Neptune -49084-08-16 17:59 J -16206279.96 -16206279.75 -16206279.50 0.0089 0.0040

Neptune -49083-08-19 12:13 J -16205912.12 -16205911.99 -16205911.82 0.0089 0.0073
 Uranus -49083-09-13 18:28 J -16205886.92 -16205886.73 -16205886.50 0.0132 0.0080
 Jupiter -49082-09-04 13:54 J -16205531.15 -16205530.92 -16205530.69 0.0540 0.0150
 Uranus -49082-09-17 21:35 J -16205517.84 -16205517.60 -16205517.36 0.0133 0.0014
 Uranus -49081-09-21 03:49 J -16205148.40 -16205148.34 -16205148.24 0.0133 0.0126
 Saturn -49074-02-26 10:47 J -16202799.29 -16202799.05 -16202798.81 0.0282 0.0010
 Jupiter -49070-09-09 10:18 J -16201143.24 -16201143.07 -16201142.89 0.0541 0.0341
 Mars -49067-08-03 17:16 J -16200083.87 -16200083.78 -16200083.70 0.1639 0.1419
 Mars -49060-01-25 03:35 J -16197717.47 -16197717.35 -16197717.22 0.1906 0.1415
 Saturn -49059-08-30 14:09 J -16197135.14 -16197134.91 -16197134.67 0.0277 0.0052
 Saturn -49058-09-12 13:25 J -16196757.06 -16196756.94 -16196756.82 0.0280 0.0243
 Saturn -49045-02-20 15:21 J -16192213.06 -16192212.86 -16192212.64 0.0283 0.0160
 Saturn -49044-03-04 20:09 J -16191834.87 -16191834.66 -16191834.44 0.0280 0.0150
 Uranus -49042-03-11 09:49 J -16191098.24 -16191098.09 -16191097.91 0.0146 0.0114
 Uranus -49041-03-15 20:52 J -16190727.88 -16190727.63 -16190727.38 0.0146 0.0016
 Jupiter -49040-03-02 07:40 J -16190376.40 -16190376.18 -16190375.96 0.0487 0.0183
 Saturn -49030-08-24 20:23 J -16186548.84 -16186548.65 -16186548.47 0.0277 0.0187
 Saturn -49029-09-05 15:35 J -16186171.07 -16186170.85 -16186170.62 0.0280 0.0102
 Jupiter -49028-03-06 07:25 J -16185989.40 -16185989.19 -16185988.98 0.0487 0.0241
 Saturn -49015-02-27 12:57 J -16181248.20 -16181247.96 -16181247.72 0.0282 0.0013
 Neptune -49006-02-02 23:45 J -16177985.65 -16177985.51 -16177985.30 0.0089 0.0066
 Neptune -49005-02-05 17:59 J -16177617.95 -16177617.75 -16177617.51 0.0089 0.0045
 Neptune -49004-02-06 23:01 J -16177250.79 -16177250.54 -16177250.28 0.0089 0.0012
 Neptune -49003-02-09 17:45 J -16176883.02 -16176882.76 -16176882.50 0.0089 0.0008
 Neptune -49002-02-11 23:16 J -16176515.74 -16176515.53 -16176515.29 0.0089 0.0042
 Neptune -49001-02-14 15:49 J -16176148.03 -16176147.84 -16176147.65 0.0089 0.0061

49TH MILLENNIUM BCE

This is a list of transits of Moon in the 49th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-49000-08-31 17:59 J		-16175584.00	-16175583.75	-16175583.50	0.0278	0.0028	
Jupiter	-48999-09-03 10:18 J		-16175216.27	-16175216.07	-16175215.87	0.0541	0.0245	
Saturn	-48999-09-13 12:28 J		-16175206.05	-16175205.98	-16175205.91	0.0280	0.0268	
Uranus	-48999-09-14 08:52 J		-16175205.32	-16175205.13	-16175204.92	0.0132	0.0082	
Uranus	-48998-09-18 12:28 J		-16174836.20	-16174835.98	-16174835.73	0.0133	0.0034	
Uranus	-48997-09-21 18:42 J		-16174466.78	-16174466.72	-16174466.67	0.0133	0.0129	
Jupiter	-48987-09-09 02:23 J		-16170827.59	-16170827.40	-16170827.20	0.0541	0.0282	
Saturn	-48986-02-21 10:33 J		-16170662.28	-16170662.06	-16170661.84	0.0283	0.0133	
Saturn	-48985-03-05 19:11 J		-16170283.89	-16170283.70	-16170283.51	0.0280	0.0174	
Mars	-48981-01-29 17:01 J		-16168858.89	-16168858.79	-16168858.69	0.1899	0.1661	
Saturn	-48971-08-25 22:18 J		-16164997.75	-16164997.57	-16164997.36	0.0277	0.0163	
Saturn	-48970-09-07 22:33 J		-16164619.77	-16164619.56	-16164619.35	0.0280	0.0129	
Uranus	-48958-03-11 22:47 J		-16160416.67	-16160416.55	-16160416.38	0.0146	0.0121	
Saturn	-48957-02-16 01:25 J		-16160075.49	-16160075.44	-16160075.39	0.0284	0.0277	
Jupiter	-48957-03-01 12:13 J		-16160061.20	-16160060.99	-16160060.77	0.0487	0.0216	
Uranus	-48957-03-16 10:33 J		-16160046.30	-16160046.06	-16160045.81	0.0146	0.0037	
Saturn	-48956-02-28 13:11 J		-16159697.20	-16159696.95	-16159696.70	0.0281	0.0038	
Pluto	-48951-02-08 17:16 J		-16157890.99	-16157890.78	-16157890.55	0.0064	0.0033	
Pluto	-48950-02-09 23:16 J		-16157524.73	-16157524.53	-16157524.33	0.0065	0.0040	
Jupiter	-48945-03-06 00:28 J		-16155673.69	-16155673.48	-16155673.28	0.0487	0.0221	
Mars	-48941-07-30 10:04 J		-16154066.24	-16154066.08	-16154065.91	0.1629	0.0918	
Saturn	-48941-09-01 18:13 J		-16154032.99	-16154032.74	-16154032.48	0.0278	0.0003	

Saturn -48927-02-22 11:59 J -16149111.22 -16149111.00 -16149110.77 0.0283 0.0107
 Saturn -48926-03-08 00:28 J -16148732.64 -16148732.48 -16148732.30 0.0280 0.0199
 Neptune -48924-08-07 05:30 J -16147849.39 -16147849.27 -16147849.14 0.0088 0.0076
 Neptune -48923-08-09 10:47 J -16147482.23 -16147482.05 -16147481.81 0.0089 0.0054
 Neptune -48922-08-12 05:59 J -16147114.50 -16147114.25 -16147114.00 0.0089 0.0023
 Neptune -48921-08-13 10:33 J -16146747.32 -16146747.06 -16146746.80 0.0089 0.0001
 Neptune -48920-08-16 04:18 J -16146379.56 -16146379.32 -16146379.06 0.0089 0.0031
 Neptune -48919-08-18 11:16 J -16146012.23 -16146012.03 -16146011.83 0.0089 0.0053
 Neptune -48918-08-21 01:11 J -16145644.50 -16145644.45 -16145644.34 0.0089 0.0085
 Jupiter -48916-09-02 23:59 J -16144900.68 -16144900.50 -16144900.30 0.0541 0.0313
 Uranus -48915-09-14 22:04 J -16144523.80 -16144523.58 -16144523.33 0.0132 0.0061
 Uranus -48914-09-19 02:37 J -16144154.62 -16144154.39 -16144154.15 0.0133 0.0033
 Saturn -48912-08-27 06:28 J -16143446.43 -16143446.23 -16143446.02 0.0277 0.0135
 Saturn -48911-09-09 06:13 J -16143068.43 -16143068.24 -16143068.03 0.0280 0.0158
 Jupiter -48904-09-07 21:21 J -16140512.82 -16140512.61 -16140512.38 0.0541 0.0196
 Saturn -48898-02-17 03:06 J -16138524.48 -16138524.37 -16138524.24 0.0284 0.0250
 Saturn -48897-03-01 10:47 J -16138146.30 -16138146.05 -16138145.80 0.0281 0.0062
 Saturn -48883-08-22 06:42 J -16132859.31 -16132859.22 -16132859.11 0.0276 0.0253
 Saturn -48882-09-03 22:04 J -16132481.82 -16132481.58 -16132481.33 0.0278 0.0031
 Jupiter -48874-03-02 00:57 J -16129745.65 -16129745.46 -16129745.27 0.0487 0.0262
 Uranus -48874-03-12 09:06 J -16129735.29 -16129735.12 -16129734.91 0.0146 0.0099
 Uranus -48873-03-16 21:06 J -16129364.86 -16129364.62 -16129364.37 0.0146 0.0031
 Saturn -48868-02-23 21:06 J -16127559.85 -16127559.62 -16127559.39 0.0283 0.0079
 Saturn -48867-03-09 07:54 J -16127181.31 -16127181.17 -16127181.03 0.0280 0.0227
 Pluto -48863-08-14 10:47 J -16125562.27 -16125562.05 -16125561.79 0.0080 0.0037
 Jupiter -48862-03-06 05:45 J -16125358.49 -16125358.26 -16125358.03 0.0487 0.0168
 Mars -48862-08-02 21:49 J -16125208.78 -16125208.59 -16125208.40 0.1632 0.0605
 Saturn -48853-08-28 16:47 J -16121895.02 -16121894.80 -16121894.57 0.0277 0.0105
 Saturn -48852-09-10 11:30 J -16121517.19 -16121517.02 -16121516.83 0.0280 0.0191
 Neptune -48842-02-02 11:59 J -16118085.11 -16118085.00 -16118084.90 0.0089 0.0080

Neptune -48841-02-04 16:18 J -16117718.00 -16117717.82 -16117717.63 0.0089 0.0061
 Neptune -48840-02-06 10:47 J -16117350.30 -16117350.05 -16117349.81 0.0089 0.0027
 Neptune -48839-02-08 16:47 J -16116983.05 -16116982.80 -16116982.55 0.0089 0.0007
 Saturn -48839-02-18 03:35 J -16116973.49 -16116973.35 -16116973.18 0.0284 0.0223
 Neptune -48838-02-11 08:09 J -16116615.42 -16116615.16 -16116614.91 0.0089 0.0027
 Saturn -48838-03-03 12:28 J -16116595.20 -16116594.98 -16116594.74 0.0281 0.0090
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 Neptune -48836-02-15 04:47 J -16115880.39 -16115880.30 -16115880.17 0.0089 0.0081
 Jupiter -48833-09-01 10:33 J -16114586.20 -16114586.06 -16114585.92 0.0541 0.0435
 Uranus -48831-09-15 12:42 J -16113842.19 -16113841.97 -16113841.73 0.0132 0.0063
 Uranus -48830-09-19 18:13 J -16113472.96 -16113472.74 -16113472.52 0.0133 0.0053
 Saturn -48824-08-23 11:01 J -16111308.18 -16111308.04 -16111307.90 0.0276 0.0225
 Saturn -48823-09-05 08:09 J -16110930.39 -16110930.16 -16110929.93 0.0279 0.0065
 Jupiter -48821-09-06 23:16 J -16110197.76 -16110197.53 -16110197.31 0.0541 0.0084
 Saturn -48809-02-26 07:25 J -16106008.43 -16106008.19 -16106007.95 0.0282 0.0048
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 Saturn -48794-08-31 00:57 J -16100343.71 -16100343.46 -16100343.22 0.0278 0.0072
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 Jupiter -48791-03-01 05:45 J -16099430.43 -16099430.26 -16099430.06 0.0487 0.0316
 Uranus -48790-03-12 22:47 J -16099053.72 -16099053.55 -16099053.36 0.0146 0.0105
 Uranus -48789-03-17 11:01 J -16098683.27 -16098683.04 -16098682.80 0.0146 0.0053
 Saturn -48780-02-19 10:18 J -16095422.24 -16095422.07 -16095421.88 0.0283 0.0190
 Saturn -48779-03-04 23:16 J -16095043.74 -16095043.53 -16095043.31 0.0281 0.0121
 Jupiter -48779-03-05 12:13 J -16095043.21 -16095042.99 -16095042.77 0.0487 0.0121
 Saturn -48765-08-24 22:33 J -16089756.73 -16089756.56 -16089756.39 0.0277 0.0195
 Saturn -48764-09-06 22:33 J -16089378.78 -16089378.56 -16089378.33 0.0279 0.0100
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 Neptune -48756-08-15 03:35 J -16086479.59 -16086479.35 -16086479.10 0.0089 0.0018

Neptune -48755-08-17 16:18 J -16086112.04 -16086111.82 -16086111.56 0.0089 0.0037
 Neptune -48754-08-20 04:47 J -16085744.44 -16085744.30 -16085744.15 0.0089 0.0071
 Saturn -48750-02-27 15:21 J -16084457.12 -16084456.86 -16084456.61 0.0282 0.0015
 Jupiter -48750-09-01 19:11 J -16084270.75 -16084270.70 -16084270.65 0.0541 0.0525
 Uranus -48747-09-16 02:52 J -16083160.63 -16083160.38 -16083160.13 0.0132 0.0040
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 Jupiter -48738-09-06 22:18 J -16079882.81 -16079882.57 -16079882.33 0.0541 0.0005
 Mars -48736-07-29 21:35 J -16079190.68 -16079190.60 -16079190.53 0.1623 0.1468
 Saturn -48735-09-01 06:57 J -16078792.45 -16078792.21 -16078791.96 0.0278 0.0040
 Saturn -48734-09-14 03:49 J -16078414.40 -16078414.34 -16078414.24 0.0281 0.0264
 Saturn -48721-02-21 23:59 J -16073870.69 -16073870.50 -16073870.30 0.0283 0.0156
 Saturn -48720-03-06 13:54 J -16073492.12 -16073491.92 -16073491.72 0.0280 0.0153
 Jupiter -48708-02-28 11:01 J -16069115.19 -16069115.04 -16069114.90 0.0487 0.0373
 Uranus -48706-03-13 11:30 J -16068372.23 -16068372.02 -16068371.81 0.0146 0.0080
 Saturn -48706-08-27 13:40 J -16068205.11 -16068204.93 -16068204.73 0.0277 0.0162
 Uranus -48705-03-17 23:16 J -16068001.76 -16068001.53 -16068001.28 0.0146 0.0050
 Saturn -48705-09-08 11:45 J -16067827.22 -16067827.01 -16067826.79 0.0279 0.0135
 Pluto -48704-02-10 04:33 J -16067672.53 -16067672.31 -16067672.07 0.0064 0.0027
 Pluto -48703-02-11 12:13 J -16067306.16 -16067305.99 -16067305.78 0.0065 0.0045
 Mars -48697-01-28 21:49 J -16065128.77 -16065128.59 -16065128.41 0.1907 0.0438
 Jupiter -48696-03-04 19:25 J -16064727.93 -16064727.69 -16064727.45 0.0487 0.0057
 Saturn -48691-03-01 00:42 J -16062905.72 -16062905.47 -16062905.22 0.0282 0.0021
 Jupiter -48684-03-08 19:25 J -16060340.78 -16060340.69 -16060340.60 0.0487 0.0450
 Neptune -48677-02-04 03:21 J -16057817.51 -16057817.36 -16057817.19 0.0089 0.0070
 Neptune -48676-02-05 10:04 J -16057450.27 -16057450.08 -16057449.85 0.0089 0.0048
 Saturn -48676-09-02 17:59 J -16057240.99 -16057240.75 -16057240.51 0.0278 0.0005
 Neptune -48675-02-08 00:42 J -16057082.72 -16057082.47 -16057082.20 0.0089 0.0016
 Neptune -48674-02-10 12:13 J -16056715.23 -16056714.99 -16056714.74 0.0089 0.0007
 Neptune -48673-02-12 20:52 J -16056347.85 -16056347.63 -16056347.37 0.0089 0.0039
 Neptune -48672-02-14 12:42 J -16055980.12 -16055979.97 -16055979.76 0.0089 0.0061

Uranus -48663-09-16 17:30 J -16052479.01 -16052478.77 -16052478.52 0.0132 0.0043
 Saturn -48662-02-23 16:18 J -16052319.04 -16052318.82 -16052318.60 0.0283 0.0118
 Uranus -48662-09-21 00:13 J -16052109.68 -16052109.49 -16052109.28 0.0133 0.0074
 Saturn -48661-03-08 01:40 J -16051940.61 -16051940.43 -16051940.24 0.0280 0.0189
 Mars -48657-07-31 17:16 J -16050333.95 -16050333.78 -16050333.62 0.1625 0.0631
 Jupiter -48655-09-05 15:06 J -16049568.08 -16049567.87 -16049567.65 0.0540 0.0127
 Saturn -48647-08-29 01:54 J -16046653.64 -16046653.42 -16046653.20 0.0277 0.0128
 Saturn -48646-09-10 19:40 J -16046275.87 -16046275.68 -16046275.47 0.0280 0.0172
 Jupiter -48643-09-10 22:47 J -16045179.67 -16045179.55 -16045179.43 0.0541 0.0463
 Saturn -48633-02-18 04:18 J -16041732.43 -16041732.32 -16041732.20 0.0284 0.0251
 Saturn -48632-03-02 14:37 J -16041354.12 -16041353.89 -16041353.65 0.0281 0.0061
 Jupiter -48625-02-28 17:45 J -16038799.86 -16038799.76 -16038799.64 0.0487 0.0434
 Uranus -48622-03-14 03:06 J -16037690.57 -16037690.37 -16037690.15 0.0146 0.0083
 Uranus -48621-03-18 15:06 J -16037320.07 -16037319.87 -16037319.64 0.0146 0.0076
 Saturn -48618-08-23 10:04 J -16036067.15 -16036067.08 -16036066.99 0.0276 0.0260
 Saturn -48617-09-04 09:21 J -16035689.34 -16035689.11 -16035688.87 0.0278 0.0033
 Pluto -48616-08-16 03:49 J -16035343.58 -16035343.34 -16035343.07 0.0080 0.0020
 Jupiter -48613-03-03 16:47 J -16034413.03 -16034412.80 -16034412.57 0.0487 0.0008
 Saturn -48603-02-25 06:28 J -16030767.46 -16030767.23 -16030766.98 0.0282 0.0080
 Saturn -48602-03-10 11:16 J -16030389.18 -16030389.03 -16030388.87 0.0280 0.0224
 Jupiter -48601-03-08 06:57 J -16030025.34 -16030025.21 -16030025.06 0.0487 0.0384
 Neptune -48595-08-07 17:45 J -16027681.82 -16027681.76 -16027681.64 0.0088 0.0083
 Neptune -48594-08-10 11:01 J -16027314.23 -16027314.04 -16027313.82 0.0088 0.0057
 Neptune -48593-08-11 19:40 J -16026946.90 -16026946.68 -16026946.43 0.0088 0.0029
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 Neptune -48591-08-16 21:21 J -16026211.83 -16026211.61 -16026211.35 0.0089 0.0027
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 Neptune -48589-08-20 21:21 J -16025476.68 -16025476.61 -16025476.48 0.0089 0.0082
 Saturn -48588-08-30 08:52 J -16025102.36 -16025102.13 -16025101.88 0.0278 0.0094
 Saturn -48587-09-12 03:06 J -16024724.52 -16024724.37 -16024724.20 0.0280 0.0209

Uranus -48579-09-17 07:25 J -16021797.44 -16021797.19 -16021796.93 0.0132 0.0019
 Mars -48578-08-03 17:59 J -16021476.92 -16021476.75 -16021476.58 0.1628 0.0765
 Uranus -48578-09-21 14:52 J -16021428.09 -16021427.88 -16021427.68 0.0133 0.0073
 Saturn -48574-02-19 18:42 J -16020180.87 -16020180.72 -16020180.56 0.0284 0.0216
 Saturn -48573-03-04 08:09 J -16019802.38 -16019802.16 -16019801.93 0.0281 0.0098
 Jupiter -48572-09-04 15:35 J -16019253.06 -16019252.85 -16019252.63 0.0541 0.0228
 Jupiter -48560-09-09 17:45 J -16014864.92 -16014864.76 -16014864.60 0.0541 0.0380
 Saturn -48559-08-24 23:59 J -16014515.63 -16014515.50 -16014515.37 0.0276 0.0227
 Saturn -48558-09-06 23:16 J -16014137.76 -16014137.53 -16014137.29 0.0279 0.0068
 Saturn -48544-02-26 15:06 J -16009216.12 -16009215.87 -16009215.62 0.0282 0.0046
 Saturn -48543-03-11 20:52 J -16008837.71 -16008837.63 -16008837.54 0.0279 0.0260
 Uranus -48538-03-14 15:49 J -16007009.06 -16007008.84 -16007008.60 0.0147 0.0059
 Uranus -48537-03-19 03:35 J -16006638.56 -16006638.35 -16006638.11 0.0146 0.0072
 Jupiter -48530-03-04 05:01 J -16004097.52 -16004097.29 -16004097.05 0.0487 0.0065
 Saturn -48529-08-31 14:37 J -16003551.13 -16003550.89 -16003550.65 0.0278 0.0063
 Saturn -48528-09-13 14:09 J -16003173.01 -16003172.91 -16003172.79 0.0281 0.0245
 Jupiter -48518-03-08 02:37 J -15999710.56 -15999710.39 -15999710.20 0.0487 0.0313
 Saturn -48515-02-21 12:28 J -15998629.16 -15998628.98 -15998628.80 0.0283 0.0182
 Saturn -48514-03-07 00:42 J -15998250.68 -15998250.47 -15998250.25 0.0281 0.0134
 Neptune -48513-02-03 03:49 J -15997917.39 -15997917.34 -15997917.23 0.0089 0.0084
 Neptune -48512-02-04 17:16 J -15997549.96 -15997549.78 -15997549.59 0.0089 0.0064
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 Neptune -48509-02-12 06:42 J -15996447.45 -15996447.22 -15996446.96 0.0089 0.0026
 Neptune -48508-02-13 12:13 J -15996080.20 -15996079.99 -15996079.76 0.0089 0.0045
 Neptune -48507-02-16 07:11 J -15995712.30 -15995712.20 -15995712.09 0.0089 0.0080
 Saturn -48500-08-26 12:28 J -15992964.14 -15992963.98 -15992963.80 0.0276 0.0198
 Saturn -48499-09-08 07:25 J -15992586.42 -15992586.19 -15992585.95 0.0279 0.0101
 Uranus -48496-09-13 21:21 J -15991484.72 -15991484.61 -15991484.47 0.0132 0.0113
 Uranus -48495-09-17 21:49 J -15991115.84 -15991115.59 -15991115.33 0.0132 0.0023

Uranus -48494-09-22 05:30 J -15990746.42 -15990746.27 -15990746.08 0.0133 0.0095
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 Saturn -48485-02-28 23:16 J -15987664.77 -15987664.53 -15987664.28 0.0282 0.0015
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 Saturn -48470-09-02 23:01 J -15981999.78 -15981999.54 -15981999.31 0.0278 0.0032
 Saturn -48469-09-15 01:40 J -15981621.45 -15981621.43 -15981621.39 0.0281 0.0278
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 Saturn -48456-02-23 01:25 J -15977077.65 -15977077.44 -15977077.23 0.0283 0.0148
 Saturn -48455-03-08 09:06 J -15976699.31 -15976699.12 -15976698.90 0.0281 0.0164
 Uranus -48454-03-15 05:59 J -15976327.47 -15976327.25 -15976327.01 0.0147 0.0064
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 Jupiter -48447-03-03 03:49 J -15973782.57 -15973782.34 -15973782.11 0.0487 0.0123
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 Jupiter -48435-03-07 14:23 J -15969395.09 -15969394.90 -15969394.71 0.0487 0.0253
 Neptune -48430-08-09 12:13 J -15967414.10 -15967413.99 -15967413.86 0.0088 0.0077
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 Mars -48413-01-28 13:11 J -15961398.14 -15961397.95 -15961397.75 0.1914 0.0574
 Uranus -48412-09-14 12:13 J -15960803.09 -15960802.99 -15960802.86 0.0132 0.0116
 Saturn -48411-09-04 08:23 J -15960448.39 -15960448.15 -15960447.92 0.0278 0.0007
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Jupiter -48406-09-03 16:04 J -15958622.97 -15958622.83 -15958622.68 0.0540 0.0421
 Saturn -48397-02-25 06:28 J -15955526.45 -15955526.23 -15955525.99 0.0283 0.0119
 Saturn -48396-03-09 11:59 J -15955148.17 -15955148.00 -15955147.80 0.0280 0.0190
 Jupiter -48394-09-08 12:42 J -15954235.19 -15954234.97 -15954234.74 0.0541 0.0176
 Saturn -48382-08-29 19:54 J -15949861.89 -15949861.67 -15949861.46 0.0276 0.0142
 Saturn -48381-09-10 14:09 J -15949484.10 -15949483.91 -15949483.71 0.0279 0.0161
 Mars -48373-08-02 07:54 J -15946601.36 -15946601.17 -15946600.99 0.1622 0.0199
 Uranus -48370-03-15 16:18 J -15945646.05 -15945645.82 -15945645.57 0.0147 0.0044
 Uranus -48369-03-20 03:35 J -15945275.55 -15945275.35 -15945275.13 0.0146 0.0086
 Pluto -48369-08-18 01:54 J -15945124.65 -15945124.42 -15945124.16 0.0080 0.0022
 Saturn -48368-02-18 04:18 J -15944940.37 -15944940.32 -15944940.24 0.0284 0.0273
 Saturn -48367-03-03 20:52 J -15944561.87 -15944561.63 -15944561.39 0.0282 0.0043
 Jupiter -48364-03-02 15:49 J -15943467.05 -15943466.84 -15943466.62 0.0487 0.0178
 Saturn -48353-08-23 17:16 J -15939274.78 -15939274.78 -15939274.76 0.0276 0.0275
 Jupiter -48352-03-06 20:09 J -15939079.88 -15939079.66 -15939079.43 0.0487 0.0196
 Saturn -48352-09-05 12:57 J -15938897.20 -15938896.96 -15938896.71 0.0278 0.0021
 Neptune -48348-02-03 23:59 J -15937649.62 -15937649.50 -15937649.36 0.0089 0.0075
 Neptune -48347-02-06 06:57 J -15937282.41 -15937282.21 -15937281.98 0.0089 0.0050
 Neptune -48346-02-09 00:28 J -15936914.73 -15936914.48 -15936914.23 0.0089 0.0019
 Neptune -48345-02-11 05:16 J -15936547.54 -15936547.28 -15936547.02 0.0089 0.0005
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 Saturn -48338-02-26 06:42 J -15933975.45 -15933975.22 -15933974.98 0.0283 0.0094
 Saturn -48337-03-10 16:47 J -15933596.96 -15933596.80 -15933596.65 0.0280 0.0216
 Mars -48334-01-31 16:18 J -15932539.87 -15932539.82 -15932539.77 0.1909 0.1811
 Uranus -48328-09-15 02:37 J -15930121.56 -15930121.39 -15930121.21 0.0132 0.0095
 Uranus -48327-09-19 01:25 J -15929752.70 -15929752.44 -15929752.18 0.0132 0.0004
 Uranus -48326-09-23 10:33 J -15929383.17 -15929383.06 -15929382.92 0.0132 0.0114
 Saturn -48323-08-30 22:33 J -15928310.78 -15928310.56 -15928310.34 0.0276 0.0116
 Jupiter -48323-09-02 11:01 J -15928308.12 -15928308.04 -15928307.95 0.0541 0.0504

Saturn -48322-09-12 20:52 J -15927932.79 -15927932.63 -15927932.45 0.0279 0.0191
 Jupiter -48311-09-08 02:09 J -15923919.63 -15923919.41 -15923919.19 0.0541 0.0127
 Saturn -48309-02-20 11:30 J -15923389.12 -15923389.02 -15923388.89 0.0284 0.0247
 Saturn -48308-03-04 23:59 J -15923010.74 -15923010.50 -15923010.25 0.0282 0.0070
 Mars -48294-08-05 05:01 J -15917744.42 -15917744.29 -15917744.16 0.1625 0.1110
 Saturn -48294-08-25 20:09 J -15917723.75 -15917723.66 -15917723.55 0.0276 0.0251
 Saturn -48293-09-06 10:33 J -15917346.31 -15917346.06 -15917345.81 0.0278 0.0049
 Uranus -48286-03-16 04:33 J -15914964.53 -15914964.31 -15914964.07 0.0147 0.0051
 Uranus -48285-03-20 15:06 J -15914594.02 -15914593.87 -15914593.68 0.0146 0.0108
 Jupiter -48281-03-01 23:30 J -15913151.74 -15913151.52 -15913151.30 0.0487 0.0222
 Saturn -48279-02-27 07:25 J -15912424.42 -15912424.19 -15912423.96 0.0283 0.0070
 Saturn -48278-03-12 21:35 J -15912045.71 -15912045.60 -15912045.47 0.0280 0.0239
 Jupiter -48269-03-06 05:01 J -15908764.50 -15908764.29 -15908764.07 0.0486 0.0148
 Neptune -48266-08-08 14:37 J -15907513.89 -15907513.89 -15907513.86 0.0088 0.0088
 Neptune -48265-08-10 06:13 J -15907146.40 -15907146.24 -15907146.03 0.0088 0.0061
 Neptune -48264-08-12 12:28 J -15906779.20 -15906778.98 -15906778.72 0.0088 0.0034
 Saturn -48264-09-01 04:47 J -15906759.52 -15906759.30 -15906759.08 0.0276 0.0088
 Neptune -48263-08-15 07:25 J -15906411.45 -15906411.19 -15906410.93 0.0088 0.0006
 Saturn -48263-09-14 02:37 J -15906381.53 -15906381.39 -15906381.23 0.0279 0.0219
 Neptune -48262-08-17 11:59 J -15906044.24 -15906044.00 -15906043.75 0.0088 0.0022
 Neptune -48261-08-19 05:45 J -15905676.47 -15905676.26 -15905676.03 0.0089 0.0049
 Neptune -48260-08-21 11:59 J -15905309.11 -15905309.00 -15905308.87 0.0089 0.0078
 Saturn -48250-02-21 11:59 J -15901838.15 -15901838.00 -15901837.85 0.0284 0.0225
 Saturn -48249-03-05 20:09 J -15901459.89 -15901459.66 -15901459.41 0.0282 0.0090
 Uranus -48244-09-15 16:33 J -15899439.95 -15899439.81 -15899439.62 0.0132 0.0098
 Uranus -48243-09-19 14:52 J -15899071.13 -15899070.88 -15899070.62 0.0132 0.0019
 Uranus -48242-09-24 00:28 J -15898701.60 -15898701.48 -15898701.33 0.0132 0.0111
 Saturn -48235-08-26 17:16 J -15896172.91 -15896172.78 -15896172.62 0.0276 0.0226
 Saturn -48234-09-08 07:40 J -15895795.41 -15895795.18 -15895794.94 0.0278 0.0077
 Jupiter -48228-09-07 01:26 J -15893604.68 -15893604.44 -15893604.20 0.0541 0.0050

Saturn -48220-02-28 10:33 J -15890873.29 -15890873.06 -15890872.82 0.0283 0.0052
 Saturn -48219-03-13 23:16 J -15890494.61 -15890494.53 -15890494.43 0.0280 0.0261
 Pluto -48210-02-14 12:42 J -15887235.20 -15887234.97 -15887234.71 0.0065 0.0014
 Saturn -48205-09-02 09:21 J -15885208.35 -15885208.11 -15885207.87 0.0276 0.0062
 Saturn -48204-09-15 01:54 J -15884830.52 -15884830.42 -15884830.29 0.0279 0.0248
 Uranus -48202-03-16 15:21 J -15884283.10 -15884282.86 -15884282.61 0.0147 0.0030
 Uranus -48201-03-21 01:11 J -15883912.64 -15883912.45 -15883912.25 0.0146 0.0100
 Jupiter -48198-03-02 08:23 J -15882836.33 -15882836.15 -15882835.95 0.0487 0.0270
 Saturn -48191-02-22 05:45 J -15880287.42 -15880287.26 -15880287.08 0.0284 0.0208
 Saturn -48190-03-07 16:33 J -15879909.03 -15879908.81 -15879908.58 0.0282 0.0110
 Jupiter -48186-03-06 20:52 J -15878448.86 -15878448.63 -15878448.39 0.0486 0.0096
 Neptune -48184-02-02 23:59 J -15877749.52 -15877749.50 -15877749.41 0.0089 0.0087
 Neptune -48183-02-05 18:28 J -15877381.88 -15877381.73 -15877381.56 0.0089 0.0068
 Neptune -48182-02-07 23:02 J -15877014.77 -15877014.54 -15877014.29 0.0089 0.0032
 Neptune -48181-02-10 17:45 J -15876647.02 -15876646.76 -15876646.50 0.0089 0.0013
 Neptune -48180-02-11 23:30 J -15876279.75 -15876279.52 -15876279.27 0.0089 0.0024
 Neptune -48179-02-14 15:21 J -15875912.09 -15875911.86 -15875911.62 0.0089 0.0043
 Neptune -48178-02-17 00:28 J -15875544.56 -15875544.48 -15875544.34 0.0089 0.0080
 Saturn -48176-08-27 14:52 J -15874622.03 -15874621.88 -15874621.70 0.0276 0.0204
 Saturn -48175-09-09 10:47 J -15874244.26 -15874244.05 -15874243.82 0.0278 0.0104
 Jupiter -48174-03-10 19:54 J -15874061.69 -15874061.67 -15874061.65 0.0487 0.0484
 Mars -48168-07-31 22:47 J -15871726.70 -15871726.55 -15871726.40 0.1616 0.0985
 Saturn -48161-03-01 10:47 J -15869322.29 -15869322.05 -15869321.80 0.0283 0.0034
 Saturn -48160-03-14 18:42 J -15868943.74 -15868943.72 -15868943.69 0.0280 0.0279
 Uranus -48160-09-16 06:28 J -15868758.42 -15868758.23 -15868758.02 0.0132 0.0076
 Uranus -48159-09-20 04:33 J -15868389.57 -15868389.31 -15868389.06 0.0132 0.0014
 Uranus -48158-09-24 15:06 J -15868019.87 -15868019.87 -15868019.86 0.0133 0.0132
 Saturn -48146-09-04 09:06 J -15863657.37 -15863657.12 -15863656.87 0.0276 0.0035
 Jupiter -48145-09-06 03:35 J -15863289.57 -15863289.35 -15863289.13 0.0541 0.0032
 Jupiter -48133-09-11 16:33 J -15858900.82 -15858900.81 -15858900.78 0.0542 0.0540

Saturn -48132-02-23 03:21 J -15858736.54 -15858736.36 -15858736.18 0.0284 0.0191
 Saturn -48131-03-08 18:14 J -15858357.95 -15858357.74 -15858357.52 0.0282 0.0130
 Pluto -48123-08-18 19:54 J -15855272.77 -15855272.67 -15855272.51 0.0080 0.0070
 Pluto -48122-08-21 02:38 J -15854905.51 -15854905.39 -15854905.21 0.0080 0.0065
 Uranus -48118-03-17 05:16 J -15853601.52 -15853601.28 -15853601.04 0.0146 0.0034
 Uranus -48117-03-21 14:09 J -15853231.03 -15853230.91 -15853230.75 0.0146 0.0124
 Saturn -48117-08-28 17:45 J -15853070.93 -15853070.76 -15853070.57 0.0276 0.0178
 Saturn -48116-09-10 15:35 J -15852693.05 -15852692.85 -15852692.63 0.0278 0.0133
 Jupiter -48115-03-02 01:11 J -15852520.63 -15852520.45 -15852520.27 0.0487 0.0313
 Jupiter -48103-03-06 01:11 J -15848133.69 -15848133.45 -15848133.22 0.0487 0.0057
 Saturn -48102-03-03 04:47 J -15847771.56 -15847771.30 -15847771.05 0.0283 0.0016
 Neptune -48101-08-09 04:47 J -15847246.39 -15847246.30 -15847246.18 0.0088 0.0081
 Neptune -48100-08-11 23:30 J -15846878.73 -15846878.52 -15846878.28 0.0088 0.0044
 Neptune -48099-08-14 04:33 J -15846511.55 -15846511.31 -15846511.06 0.0088 0.0026
 Neptune -48098-08-16 22:18 J -15846143.83 -15846143.57 -15846143.31 0.0088 0.0012
 Neptune -48097-08-18 05:45 J -15845776.48 -15845776.26 -15845776.02 0.0088 0.0031
 Neptune -48096-08-20 19:40 J -15845408.84 -15845408.68 -15845408.49 0.0089 0.0067
 Neptune -48095-08-23 07:26 J -15845041.24 -15845041.19 -15845041.12 0.0089 0.0086
 Jupiter -48091-03-10 16:18 J -15843745.89 -15843745.82 -15843745.74 0.0486 0.0459
 Mars -48089-08-03 07:40 J -15842869.39 -15842869.18 -15842868.98 0.1619 0.0035
 Saturn -48087-09-05 07:11 J -15842106.45 -15842106.20 -15842105.95 0.0276 0.0006
 Uranus -48076-09-16 20:38 J -15838076.84 -15838076.64 -15838076.44 0.0132 0.0080
 Uranus -48075-09-20 17:59 J -15837707.99 -15837707.75 -15837707.50 0.0132 0.0038
 Uranus -48074-09-25 04:33 J -15837338.34 -15837338.31 -15837338.24 0.0133 0.0130
 Saturn -48073-02-25 06:14 J -15837185.42 -15837185.24 -15837185.04 0.0284 0.0170
 Saturn -48072-03-09 21:21 J -15836806.81 -15836806.61 -15836806.40 0.0282 0.0150
 Jupiter -48062-09-06 14:23 J -15832974.13 -15832973.90 -15832973.66 0.0541 0.0086
 Saturn -48058-08-31 00:14 J -15831519.68 -15831519.49 -15831519.28 0.0276 0.0150
 Saturn -48057-09-11 17:59 J -15831141.94 -15831141.75 -15831141.54 0.0278 0.0160
 Mars -48050-01-30 20:38 J -15828809.85 -15828809.64 -15828809.43 0.1915 0.0298

Jupiter	-48050-09-11 14:09 J	-15828586.03	-15828585.91	-15828585.78	0.0541	0.0456
Saturn	-48043-03-03 23:45 J	-15826220.76	-15826220.51	-15826220.26	0.0283	0.0004
Uranus	-48034-03-17 17:45 J	-15822920.00	-15822919.76	-15822919.51	0.0146	0.0012
Uranus	-48033-03-22 01:40 J	-15822549.57	-15822549.43	-15822549.26	0.0146	0.0118
Jupiter	-48032-03-01 06:14 J	-15822205.40	-15822205.24	-15822205.08	0.0487	0.0351
Saturn	-48028-09-06 10:04 J	-15820555.31	-15820555.08	-15820554.84	0.0277	0.0025
Jupiter	-48020-03-05 18:57 J	-15817817.94	-15817817.71	-15817817.48	0.0486	0.0012
Neptune	-48019-02-04 17:02 J	-15817481.87	-15817481.79	-15817481.65	0.0089	0.0080
Neptune	-48018-02-07 11:30 J	-15817114.21	-15817114.02	-15817113.80	0.0089	0.0053
Neptune	-48017-02-09 17:59 J	-15816746.98	-15816746.75	-15816746.50	0.0089	0.0023
Neptune	-48016-02-11 08:38 J	-15816379.41	-15816379.14	-15816378.87	0.0089	0.0004
Neptune	-48015-02-13 19:11 J	-15816011.92	-15816011.70	-15816011.46	0.0089	0.0034
Neptune	-48014-02-16 05:02 J	-15815644.46	-15815644.29	-15815644.07	0.0089	0.0060
Saturn	-48014-02-26 10:47 J	-15815634.26	-15815634.05	-15815633.84	0.0284	0.0144
Saturn	-48013-03-10 20:38 J	-15815255.83	-15815255.64	-15815255.43	0.0282	0.0175
Mars	-48010-08-06 16:18 J	-15814011.91	-15814011.82	-15814011.72	0.1622	0.1396
Jupiter	-48008-03-09 18:57 J	-15813430.83	-15813430.71	-15813430.58	0.0486	0.0413

48TH MILLENNIUM BCE

This is a list of transits of Moon in the 48th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-47999-09-01 04:18 J	-15809968.54	-15809968.32	-15809968.09	0.0276	0.0118		
Saturn	-47998-09-13 17:59 J	-15809590.93	-15809590.75	-15809590.56	0.0278	0.0193		

Uranus -47992-09-17 09:06 J -15807395.33 -15807395.12 -15807394.88 0.0132 0.0060
 Uranus -47991-09-21 06:42 J -15807026.46 -15807026.22 -15807025.96 0.0132 0.0033
 Saturn -47984-03-05 02:52 J -15804669.62 -15804669.38 -15804669.15 0.0283 0.0032
 Jupiter -47979-09-05 05:16 J -15802659.49 -15802659.28 -15802659.07 0.0541 0.0204
 Saturn -47970-08-26 23:30 J -15799381.61 -15799381.52 -15799381.41 0.0275 0.0247
 Saturn -47969-09-07 19:54 J -15799003.90 -15799003.67 -15799003.43 0.0277 0.0060
 Jupiter -47967-09-10 18:42 J -15798270.89 -15798270.72 -15798270.54 0.0542 0.0342
 Pluto -47964-02-15 04:47 J -15797382.51 -15797382.30 -15797382.06 0.0064 0.0031
 Pluto -47963-02-16 11:16 J -15797016.23 -15797016.03 -15797015.82 0.0065 0.0039
 Saturn -47955-02-27 12:42 J -15794083.20 -15794082.97 -15794082.74 0.0284 0.0114
 Saturn -47954-03-12 19:26 J -15793704.85 -15793704.69 -15793704.51 0.0281 0.0203
 Uranus -47950-03-18 07:11 J -15792238.44 -15792238.20 -15792237.95 0.0146 0.0016
 Jupiter -47949-02-29 21:21 J -15791889.72 -15791889.61 -15791889.48 0.0487 0.0409
 Uranus -47949-03-22 14:52 J -15791867.94 -15791867.88 -15791867.81 0.0146 0.0141
 Saturn -47940-09-02 05:16 J -15788417.52 -15788417.28 -15788417.04 0.0276 0.0083
 Saturn -47939-09-14 21:21 J -15788039.75 -15788039.61 -15788039.47 0.0278 0.0229
 Jupiter -47937-03-04 21:06 J -15787502.86 -15787502.62 -15787502.37 0.0487 0.0042
 Neptune -47936-08-10 23:16 J -15786978.68 -15786978.53 -15786978.33 0.0088 0.0063
 Neptune -47935-08-13 16:33 J -15786611.04 -15786610.81 -15786610.56 0.0088 0.0036
 Neptune -47934-08-16 00:42 J -15786243.72 -15786243.47 -15786243.22 0.0088 0.0007
 Neptune -47933-08-17 13:11 J -15785876.21 -15785875.95 -15785875.68 0.0088 0.0019
 Neptune -47932-08-20 01:54 J -15785508.62 -15785508.42 -15785508.21 0.0088 0.0049
 Neptune -47931-08-22 09:21 J -15785141.21 -15785141.11 -15785140.94 0.0089 0.0076
 Saturn -47926-02-21 17:30 J -15783496.85 -15783496.77 -15783496.67 0.0285 0.0263
 Saturn -47925-03-06 11:02 J -15783118.27 -15783118.04 -15783117.80 0.0282 0.0061
 Jupiter -47925-03-09 07:11 J -15783115.33 -15783115.20 -15783115.05 0.0486 0.0382
 Saturn -47911-08-28 10:04 J -15777830.22 -15777830.08 -15777829.93 0.0275 0.0213
 Saturn -47910-09-10 05:45 J -15777452.48 -15777452.26 -15777452.02 0.0277 0.0096
 Uranus -47908-09-17 22:33 J -15776713.78 -15776713.56 -15776713.33 0.0132 0.0063
 Uranus -47907-09-21 19:40 J -15776344.90 -15776344.68 -15776344.44 0.0132 0.0055

Saturn -47896-02-28 15:21 J -15772532.09 -15772531.86 -15772531.61 0.0284 0.0085
 Jupiter -47896-09-04 15:35 J -15772344.04 -15772343.85 -15772343.65 0.0541 0.0280
 Saturn -47895-03-14 01:40 J -15772153.55 -15772153.43 -15772153.29 0.0281 0.0237
 Mars -47884-08-02 09:06 J -15767994.28 -15767994.12 -15767993.96 0.1614 0.0696
 Jupiter -47884-09-09 16:47 J -15767956.00 -15767955.80 -15767955.59 0.0541 0.0261
 Saturn -47881-09-03 11:30 J -15766866.25 -15766866.02 -15766865.77 0.0276 0.0048
 Saturn -47880-09-16 08:52 J -15766488.18 -15766488.13 -15766488.06 0.0279 0.0268
 Pluto -47876-08-21 08:38 J -15765053.41 -15765053.14 -15765052.88 0.0080 0.0007
 Saturn -47867-02-23 05:02 J -15761945.41 -15761945.29 -15761945.14 0.0284 0.0233
 Jupiter -47866-02-28 23:30 J -15761574.59 -15761574.52 -15761574.46 0.0487 0.0468
 Saturn -47866-03-08 18:42 J -15761566.95 -15761566.72 -15761566.48 0.0282 0.0094
 Uranus -47866-03-18 18:14 J -15761556.99 -15761556.74 -15761556.49 0.0146 0.0003
 Uranus -47865-03-22 23:59 J -15761186.58 -15761186.50 -15761186.37 0.0146 0.0133
 Neptune -47854-02-06 12:57 J -15757214.09 -15757213.96 -15757213.79 0.0089 0.0071
 Jupiter -47854-03-05 08:23 J -15757187.37 -15757187.15 -15757186.92 0.0487 0.0093
 Neptune -47853-02-09 03:06 J -15756846.60 -15756846.37 -15756846.11 0.0089 0.0034
 Neptune -47852-02-10 15:06 J -15756479.10 -15756478.87 -15756478.61 0.0089 0.0015
 Saturn -47852-08-29 20:52 J -15756278.81 -15756278.63 -15756278.44 0.0275 0.0181
 Neptune -47851-02-12 23:59 J -15756111.74 -15756111.50 -15756111.22 0.0089 0.0023
 Saturn -47851-09-11 11:30 J -15755901.23 -15755901.02 -15755900.79 0.0278 0.0134
 Neptune -47850-02-15 16:18 J -15755744.03 -15755743.82 -15755743.59 0.0089 0.0042
 Neptune -47849-02-17 21:06 J -15755376.70 -15755376.62 -15755376.47 0.0089 0.0080
 Jupiter -47842-03-09 14:09 J -15752800.09 -15752799.91 -15752799.73 0.0486 0.0326
 Saturn -47837-03-02 00:57 J -15750980.69 -15750980.46 -15750980.22 0.0283 0.0050
 Saturn -47836-03-15 14:52 J -15750601.92 -15750601.88 -15750601.82 0.0281 0.0274
 Uranus -47824-09-18 10:47 J -15746032.29 -15746032.05 -15746031.81 0.0132 0.0044
 Uranus -47823-09-22 07:54 J -15745663.40 -15745663.17 -15745662.93 0.0132 0.0048
 Saturn -47822-09-05 23:59 J -15745314.74 -15745314.50 -15745314.26 0.0277 0.0011
 Jupiter -47813-09-03 08:52 J -15742029.30 -15742029.13 -15742028.96 0.0541 0.0375
 Saturn -47808-02-24 16:04 J -15740394.00 -15740393.83 -15740393.64 0.0284 0.0197

Saturn -47807-03-10 01:11 J -15740015.67 -15740015.45 -15740015.22 0.0282 0.0129
 Mars -47805-08-04 05:59 J -15739137.44 -15739137.25 -15739137.07 0.1616 0.0254
 Jupiter -47801-09-08 15:06 J -15737641.09 -15737640.87 -15737640.65 0.0541 0.0132
 Saturn -47793-08-31 05:02 J -15734727.50 -15734727.29 -15734727.07 0.0276 0.0145
 Saturn -47792-09-12 18:42 J -15734349.91 -15734349.72 -15734349.53 0.0278 0.0173
 Uranus -47783-03-13 22:33 J -15731245.62 -15731245.56 -15731245.47 0.0146 0.0140
 Uranus -47782-03-19 05:02 J -15730875.53 -15730875.29 -15730875.04 0.0146 0.0004
 Saturn -47778-03-04 17:30 J -15729429.00 -15729428.77 -15729428.53 0.0283 0.0013
 Neptune -47772-08-10 10:47 J -15727078.13 -15727078.05 -15727077.94 0.0088 0.0082
 Jupiter -47771-03-04 13:54 J -15726872.15 -15726871.92 -15726871.69 0.0487 0.0161
 Neptune -47771-08-12 19:54 J -15726710.87 -15726710.67 -15726710.44 0.0088 0.0046
 Neptune -47770-08-15 07:54 J -15726343.41 -15726343.17 -15726342.90 0.0088 0.0027
 Neptune -47769-08-16 22:04 J -15725975.82 -15725975.58 -15725975.32 0.0088 0.0010
 Neptune -47768-08-19 04:47 J -15725608.53 -15725608.30 -15725608.03 0.0088 0.0031
 Neptune -47767-08-21 22:18 J -15725240.71 -15725240.57 -15725240.39 0.0088 0.0068
 Mars -47766-01-29 04:47 J -15725080.41 -15725080.30 -15725080.19 0.1922 0.1599
 Neptune -47766-08-24 02:52 J -15724873.41 -15724873.38 -15724873.29 0.0088 0.0087
 Saturn -47763-09-07 14:23 J -15723763.14 -15723762.90 -15723762.66 0.0277 0.0026
 Jupiter -47759-03-08 14:09 J -15722485.09 -15722484.91 -15722484.71 0.0486 0.0264
 Saturn -47749-02-26 23:59 J -15718842.69 -15718842.50 -15718842.28 0.0284 0.0161
 Saturn -47748-03-11 09:50 J -15718464.28 -15718464.09 -15718463.88 0.0282 0.0165
 Uranus -47740-09-18 23:02 J -15715350.78 -15715350.54 -15715350.30 0.0132 0.0049
 Uranus -47739-09-22 20:09 J -15714981.86 -15714981.66 -15714981.43 0.0132 0.0069
 Saturn -47734-09-02 11:02 J -15713176.26 -15713176.04 -15713175.80 0.0276 0.0109
 Saturn -47733-09-14 05:45 J -15712798.41 -15712798.26 -15712798.10 0.0278 0.0210
 Jupiter -47730-09-03 06:57 J -15711714.27 -15711714.21 -15711714.13 0.0540 0.0508
 Mars -47726-08-07 12:28 J -15710280.03 -15710279.98 -15710279.93 0.1619 0.1560
 Saturn -47719-03-06 11:16 J -15707877.27 -15707877.03 -15707876.79 0.0283 0.0027
 Pluto -47718-02-16 19:11 J -15707529.72 -15707529.70 -15707529.65 0.0064 0.0064
 Jupiter -47718-09-08 09:50 J -15707326.33 -15707326.09 -15707325.84 0.0541 0.0030

Pluto -47717-02-18 07:26 J -15707163.44 -15707163.19 -15707162.94 0.0065 0.0008
 Saturn -47705-08-27 08:52 J -15702589.21 -15702589.13 -15702589.01 0.0275 0.0249
 Saturn -47704-09-09 02:38 J -15702211.63 -15702211.39 -15702211.15 0.0277 0.0062
 Uranus -47699-03-14 07:11 J -15700564.27 -15700564.20 -15700564.10 0.0146 0.0139
 Uranus -47698-03-19 14:23 J -15700194.14 -15700193.90 -15700193.65 0.0146 0.0013
 Uranus -47697-03-23 17:59 J -15699823.80 -15699823.75 -15699823.68 0.0146 0.0142
 Neptune -47690-02-05 21:50 J -15697313.67 -15697313.59 -15697313.47 0.0089 0.0082
 Saturn -47690-02-28 11:16 J -15697291.25 -15697291.03 -15697290.80 0.0284 0.0124
 Neptune -47689-02-08 10:18 J -15696946.24 -15696946.07 -15696945.85 0.0089 0.0054
 Saturn -47689-03-13 00:42 J -15696912.62 -15696912.47 -15696912.30 0.0281 0.0205
 Neptune -47688-02-09 18:42 J -15696578.95 -15696578.72 -15696578.45 0.0089 0.0026
 Jupiter -47688-03-03 13:26 J -15696557.14 -15696556.94 -15696556.74 0.0487 0.0232
 Neptune -47687-02-12 12:28 J -15696211.23 -15696210.98 -15696210.73 0.0089 0.0004
 Neptune -47686-02-14 17:30 J -15695844.00 -15695843.77 -15695843.52 0.0089 0.0033
 Neptune -47685-02-17 11:59 J -15695476.17 -15695476.00 -15695475.79 0.0089 0.0061
 Jupiter -47676-03-08 01:40 J -15692169.64 -15692169.43 -15692169.21 0.0487 0.0206
 Saturn -47675-09-03 21:06 J -15691624.85 -15691624.62 -15691624.39 0.0277 0.0072
 Saturn -47674-09-16 19:54 J -15691246.76 -15691246.67 -15691246.55 0.0279 0.0248
 Saturn -47661-02-23 12:14 J -15686704.07 -15686703.99 -15686703.88 0.0285 0.0262
 Saturn -47660-03-07 23:45 J -15686325.76 -15686325.51 -15686325.26 0.0282 0.0067
 Uranus -47656-09-19 09:35 J -15684669.34 -15684669.10 -15684668.85 0.0132 0.0031
 Uranus -47655-09-23 07:11 J -15684300.41 -15684300.20 -15684299.97 0.0132 0.0062
 Saturn -47646-08-29 19:54 J -15681037.82 -15681037.67 -15681037.50 0.0275 0.0212
 Saturn -47645-09-10 09:21 J -15680660.34 -15680660.11 -15680659.87 0.0277 0.0102
 Jupiter -47635-09-07 11:30 J -15677011.24 -15677011.02 -15677010.80 0.0541 0.0070
 Saturn -47631-03-02 02:52 J -15675739.61 -15675739.38 -15675739.15 0.0283 0.0084
 Saturn -47630-03-15 18:14 J -15675360.85 -15675360.74 -15675360.62 0.0281 0.0244
 Pluto -47630-08-22 11:59 J -15675201.15 -15675201.00 -15675200.83 0.0080 0.0064
 Jupiter -47623-09-12 16:33 J -15672622.92 -15672622.81 -15672622.69 0.0541 0.0470
 Saturn -47616-09-05 10:47 J -15670073.28 -15670073.05 -15670072.81 0.0277 0.0035

Uranus -47615-03-14 16:47 J -15669882.90 -15669882.80 -15669882.66 0.0146 0.0131
 Uranus -47614-03-20 01:26 J -15669512.68 -15669512.44 -15669512.19 0.0146 0.0008
 Neptune -47607-08-12 03:50 J -15666810.50 -15666810.34 -15666810.12 0.0088 0.0063
 Neptune -47606-08-14 18:42 J -15666442.93 -15666442.72 -15666442.48 0.0088 0.0038
 Jupiter -47605-03-02 22:47 J -15666241.73 -15666241.55 -15666241.35 0.0487 0.0296
 Neptune -47605-08-16 01:26 J -15666075.70 -15666075.44 -15666075.18 0.0088 0.0005
 Neptune -47604-08-18 19:11 J -15665707.94 -15665707.70 -15665707.44 0.0088 0.0020
 Neptune -47603-08-20 23:30 J -15665340.71 -15665340.52 -15665340.29 0.0088 0.0051
 Saturn -47602-02-25 00:42 J -15665152.62 -15665152.47 -15665152.31 0.0284 0.0223
 Neptune -47602-08-23 17:45 J -15664972.87 -15664972.76 -15664972.60 0.0088 0.0076
 Saturn -47601-03-09 08:52 J -15664774.36 -15664774.13 -15664773.89 0.0282 0.0105
 Mars -47600-08-03 22:47 J -15664261.73 -15664261.55 -15664261.36 0.1612 0.0298
 Jupiter -47593-03-06 22:04 J -15661854.80 -15661854.58 -15661854.35 0.0486 0.0141
 Saturn -47587-08-31 01:54 J -15659486.62 -15659486.42 -15659486.22 0.0275 0.0175
 Saturn -47586-09-12 16:18 J -15659109.02 -15659108.82 -15659108.60 0.0277 0.0140
 Uranus -47573-09-15 10:33 J -15654357.09 -15654357.06 -15654357.02 0.0132 0.0130
 Saturn -47572-03-03 18:14 J -15654187.97 -15654187.74 -15654187.50 0.0283 0.0048
 Uranus -47572-09-19 21:06 J -15653987.86 -15653987.62 -15653987.37 0.0132 0.0035
 Saturn -47571-03-17 06:28 J -15653809.24 -15653809.23 -15653809.20 0.0281 0.0280
 Uranus -47571-09-23 19:11 J -15653618.89 -15653618.70 -15653618.50 0.0132 0.0082
 Saturn -47557-09-06 21:21 J -15648521.85 -15648521.61 -15648521.36 0.0277 0.0002
 Jupiter -47552-09-06 07:54 J -15646696.39 -15646696.17 -15646695.94 0.0540 0.0196
 Saturn -47543-02-26 07:54 J -15643601.36 -15643601.17 -15643600.99 0.0284 0.0191
 Saturn -47542-03-11 18:57 J -15643222.91 -15643222.71 -15643222.48 0.0282 0.0141
 Jupiter -47540-09-11 07:11 J -15642308.36 -15642308.20 -15642308.03 0.0542 0.0365
 Uranus -47531-03-15 03:21 J -15639201.48 -15639201.36 -15639201.21 0.0146 0.0125
 Uranus -47530-03-20 12:14 J -15638831.23 -15638830.99 -15638830.74 0.0146 0.0025
 Saturn -47528-09-01 07:26 J -15637935.40 -15637935.19 -15637934.98 0.0275 0.0143
 Saturn -47527-09-14 03:21 J -15637557.54 -15637557.36 -15637557.18 0.0277 0.0175
 Neptune -47525-02-07 15:06 J -15637046.01 -15637045.87 -15637045.71 0.0089 0.0072

Neptune -47524-02-09 08:23 J -15636678.36 -15636678.15 -15636677.89 0.0089 0.0035
 Neptune -47523-02-11 13:40 J -15636311.17 -15636310.93 -15636310.67 0.0089 0.0015
 Neptune -47522-02-14 08:23 J -15635943.40 -15635943.15 -15635942.90 0.0089 0.0023
 Jupiter -47522-03-02 21:21 J -15635926.76 -15635926.61 -15635926.44 0.0487 0.0357
 Neptune -47521-02-16 13:26 J -15635576.14 -15635575.94 -15635575.69 0.0089 0.0043
 Mars -47521-08-05 20:52 J -15635404.79 -15635404.63 -15635404.47 0.1614 0.0704
 Neptune -47520-02-18 05:59 J -15635208.34 -15635208.25 -15635208.11 0.0089 0.0080
 Saturn -47513-03-05 05:16 J -15632636.53 -15632636.28 -15632636.03 0.0283 0.0015
 Jupiter -47510-03-07 10:33 J -15631539.28 -15631539.06 -15631538.83 0.0487 0.0090
 Saturn -47498-09-09 00:57 J -15626970.72 -15626970.46 -15626970.21 0.0277 0.0032
 Uranus -47489-09-15 20:38 J -15623675.66 -15623675.64 -15623675.59 0.0132 0.0131
 Uranus -47488-09-20 06:42 J -15623306.47 -15623306.22 -15623305.96 0.0132 0.0019
 Uranus -47487-09-24 05:16 J -15622937.47 -15622937.28 -15622937.06 0.0133 0.0075
 Saturn -47484-02-27 14:38 J -15622050.08 -15622049.89 -15622049.68 0.0284 0.0161
 Saturn -47483-03-13 06:28 J -15621671.41 -15621671.23 -15621671.04 0.0282 0.0175
 Pluto -47471-02-19 02:23 J -15617310.63 -15617310.40 -15617310.13 0.0065 0.0021
 Pluto -47470-02-20 09:50 J -15616944.20 -15616944.09 -15616943.90 0.0065 0.0053
 Saturn -47469-09-02 15:35 J -15616384.05 -15616383.85 -15616383.62 0.0275 0.0113
 Jupiter -47469-09-05 03:50 J -15616381.52 -15616381.34 -15616381.14 0.0541 0.0294
 Saturn -47468-09-15 13:11 J -15616006.10 -15616005.95 -15616005.78 0.0277 0.0208
 Jupiter -47457-09-10 19:54 J -15611992.86 -15611992.67 -15611992.48 0.0541 0.0297
 Saturn -47454-03-07 08:09 J -15611085.41 -15611085.16 -15611084.90 0.0283 0.0018
 Uranus -47447-03-15 13:54 J -15608520.07 -15608519.92 -15608519.76 0.0146 0.0118
 Uranus -47446-03-20 23:45 J -15608149.75 -15608149.51 -15608149.26 0.0146 0.0022
 Neptune -47443-08-11 16:47 J -15606909.88 -15606909.80 -15606909.68 0.0088 0.0082
 Neptune -47442-08-13 22:47 J -15606542.75 -15606542.55 -15606542.30 0.0088 0.0046
 Neptune -47441-08-15 17:16 J -15606175.01 -15606174.78 -15606174.52 0.0088 0.0025
 Neptune -47440-08-17 22:04 J -15605807.83 -15605807.58 -15605807.32 0.0088 0.0012
 Saturn -47440-08-28 12:57 J -15605797.05 -15605796.96 -15605796.86 0.0275 0.0253
 Jupiter -47439-03-02 11:02 J -15605611.16 -15605611.04 -15605610.90 0.0488 0.0403

Neptune -47439-08-20 16:04 J -15605440.07 -15605439.83 -15605439.58 0.0088 0.0032
 Saturn -47439-09-10 00:28 J -15605419.72 -15605419.48 -15605419.23 0.0277 0.0064
 Neptune -47438-08-22 22:18 J -15605072.72 -15605072.57 -15605072.41 0.0088 0.0069
 Jupiter -47427-03-06 13:11 J -15601224.20 -15601223.95 -15601223.71 0.0487 0.0044
 Saturn -47425-02-29 23:45 J -15600498.71 -15600498.51 -15600498.29 0.0284 0.0132
 Saturn -47424-03-14 15:35 J -15600120.01 -15600119.85 -15600119.67 0.0282 0.0204
 Jupiter -47415-03-10 22:18 J -15596836.64 -15596836.57 -15596836.49 0.0486 0.0459
 Saturn -47410-09-05 00:28 J -15594832.71 -15594832.48 -15594832.26 0.0275 0.0081
 Saturn -47409-09-16 17:02 J -15594454.91 -15594454.79 -15594454.65 0.0277 0.0237
 Uranus -47405-09-16 07:54 J -15592994.26 -15592994.17 -15592994.06 0.0132 0.0121
 Uranus -47404-09-20 17:16 J -15592625.04 -15592624.78 -15592624.53 0.0132 0.0024
 Mars -47403-01-31 19:54 J -15592491.86 -15592491.67 -15592491.49 0.1923 0.0453
 Uranus -47403-09-24 16:18 J -15592255.97 -15592255.82 -15592255.62 0.0133 0.0093
 Saturn -47395-03-08 08:23 J -15589534.39 -15589534.15 -15589533.90 0.0283 0.0046
 Mars -47395-08-02 13:54 J -15589386.98 -15589386.92 -15589386.85 0.1607 0.1506
 Jupiter -47386-09-05 15:21 J -15586066.03 -15586065.86 -15586065.69 0.0540 0.0372
 Pluto -47383-08-25 08:52 J -15584981.35 -15584981.13 -15584980.87 0.0080 0.0037
 Saturn -47381-08-29 10:47 J -15584246.19 -15584246.05 -15584245.90 0.0275 0.0223
 Saturn -47380-09-11 02:52 J -15583868.61 -15583868.38 -15583868.15 0.0277 0.0091
 Jupiter -47374-09-10 12:28 J -15581678.20 -15581677.98 -15581677.76 0.0541 0.0199
 Saturn -47366-03-03 05:02 J -15578947.52 -15578947.29 -15578947.06 0.0284 0.0104
 Saturn -47365-03-15 16:33 J -15578568.95 -15578568.81 -15578568.67 0.0282 0.0232
 Uranus -47363-03-15 23:30 J -15577838.67 -15577838.52 -15577838.33 0.0146 0.0112
 Uranus -47362-03-21 10:04 J -15577468.32 -15577468.08 -15577467.84 0.0146 0.0037
 Neptune -47361-02-07 05:59 J -15577145.32 -15577145.25 -15577145.14 0.0089 0.0083
 Neptune -47360-02-08 10:33 J -15576778.24 -15576778.06 -15576777.83 0.0089 0.0053
 Neptune -47359-02-11 05:02 J -15576410.52 -15576410.29 -15576410.02 0.0089 0.0026
 Neptune -47358-02-13 11:16 J -15576043.27 -15576043.03 -15576042.77 0.0089 0.0005
 Neptune -47357-02-16 03:35 J -15575675.59 -15575675.35 -15575675.10 0.0089 0.0033
 Neptune -47356-02-17 12:57 J -15575308.10 -15575307.96 -15575307.76 0.0089 0.0064

Jupiter -47356-03-01 17:59 J -15575295.85 -15575295.75 -15575295.63 0.0487 0.0433
 Saturn -47351-09-06 03:50 J -15573281.59 -15573281.34 -15573281.10 0.0275 0.0051
 Saturn -47350-09-18 15:35 J -15572903.92 -15572903.85 -15572903.77 0.0277 0.0265
 Jupiter -47344-03-06 01:11 J -15570908.68 -15570908.45 -15570908.23 0.0487 0.0009
 Saturn -47337-02-24 19:54 J -15568361.75 -15568361.67 -15568361.57 0.0285 0.0265
 Saturn -47336-03-09 12:42 J -15567983.19 -15567982.97 -15567982.73 0.0283 0.0076
 Jupiter -47332-03-10 08:38 J -15566521.27 -15566521.14 -15566521.00 0.0486 0.0406
 Saturn -47322-08-31 11:59 J -15562695.16 -15562695.00 -15562694.82 0.0275 0.0194
 Saturn -47321-09-12 07:40 J -15562317.39 -15562317.18 -15562316.96 0.0277 0.0121
 Uranus -47321-09-16 17:02 J -15562312.87 -15562312.79 -15562312.67 0.0132 0.0121
 Uranus -47320-09-21 01:40 J -15561943.69 -15561943.43 -15561943.17 0.0132 0.0010
 Uranus -47319-09-25 01:54 J -15561574.59 -15561574.42 -15561574.22 0.0133 0.0085
 Mars -47316-08-04 21:50 J -15560529.79 -15560529.59 -15560529.38 0.1609 0.0097
 Saturn -47307-03-04 01:54 J -15557396.66 -15557396.42 -15557396.17 0.0284 0.0077
 Saturn -47306-03-17 11:02 J -15557018.12 -15557018.04 -15557017.93 0.0282 0.0262
 Jupiter -47303-09-04 05:30 J -15555751.38 -15555751.27 -15555751.17 0.0541 0.0479
 Saturn -47292-09-07 01:11 J -15551730.70 -15551730.45 -15551730.19 0.0275 0.0019
 Jupiter -47291-09-09 20:52 J -15551362.85 -15551362.63 -15551362.41 0.0542 0.0123
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 Saturn -47278-02-25 22:33 J -15546810.69 -15546810.56 -15546810.44 0.0285 0.0239
 Uranus -47278-03-21 18:57 J -15546786.95 -15546786.71 -15546786.46 0.0146 0.0032
 Neptune -47278-08-13 15:06 J -15546642.03 -15546641.87 -15546641.66 0.0088 0.0062
 Saturn -47277-03-10 16:47 J -15546432.02 -15546431.80 -15546431.57 0.0283 0.0104
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 Jupiter -47273-03-01 05:02 J -15544980.33 -15544980.29 -15544980.23 0.0487 0.0476
 Neptune -47273-08-23 22:18 J -15544804.66 -15544804.57 -15544804.44 0.0088 0.0079
 Saturn -47263-09-01 17:16 J -15541143.96 -15541143.78 -15541143.58 0.0275 0.0164

Saturn -47262-09-14 10:47 J -15540766.26 -15540766.05 -15540765.84 0.0277 0.0149
 Jupiter -47261-03-05 12:57 J -15540593.20 -15540592.96 -15540592.72 0.0487 0.0035
 Jupiter -47249-03-09 15:50 J -15536205.99 -15536205.84 -15536205.69 0.0486 0.0363
 Saturn -47248-03-04 20:23 J -15535845.89 -15535845.65 -15535845.40 0.0284 0.0050
 Mars -47237-08-07 07:26 J -15531672.34 -15531672.19 -15531672.04 0.1612 0.1025
 Uranus -47237-09-17 03:35 J -15531631.45 -15531631.35 -15531631.20 0.0132 0.0114
 Uranus -47236-09-21 11:16 J -15531262.28 -15531262.03 -15531261.76 0.0132 0.0015
 Uranus -47235-09-25 12:42 J -15530893.12 -15530892.97 -15530892.80 0.0133 0.0101
 Saturn -47233-09-08 00:28 J -15530179.72 -15530179.48 -15530179.24 0.0275 0.0013
 Pluto -47225-02-20 16:47 J -15527457.99 -15527457.80 -15527457.57 0.0065 0.0040
 Pluto -47224-02-21 11:30 J -15527091.23 -15527091.02 -15527090.78 0.0065 0.0030
 Jupiter -47220-09-03 21:35 J -15525435.63 -15525435.60 -15525435.58 0.0541 0.0536
 Saturn -47219-02-27 01:11 J -15525259.60 -15525259.45 -15525259.28 0.0285 0.0215
 Saturn -47218-03-12 15:21 J -15524881.08 -15524880.86 -15524880.63 0.0283 0.0131
 Jupiter -47208-09-09 01:40 J -15521047.67 -15521047.43 -15521047.19 0.0541 0.0074
 Saturn -47204-09-02 20:23 J -15519592.86 -15519592.65 -15519592.43 0.0275 0.0134
 Saturn -47203-09-15 08:09 J -15519215.34 -15519215.16 -15519214.95 0.0277 0.0178
 Neptune -47196-02-08 03:21 J -15516877.49 -15516877.36 -15516877.19 0.0089 0.0072
 Neptune -47195-02-10 09:50 J -15516510.31 -15516510.09 -15516509.85 0.0089 0.0034
 Uranus -47195-03-16 15:50 J -15516476.01 -15516475.84 -15516475.65 0.0146 0.0104
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 Uranus -47194-03-22 02:52 J -15516105.61 -15516105.38 -15516105.13 0.0146 0.0042
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 Saturn -47189-03-05 18:42 J -15514294.96 -15514294.72 -15514294.48 0.0284 0.0024
 Jupiter -47178-03-05 21:50 J -15510277.82 -15510277.59 -15510277.37 0.0487 0.0068
 Saturn -47175-08-28 12:42 J -15509005.99 -15509005.97 -15509005.92 0.0273 0.0270
 Saturn -47174-09-10 05:59 J -15508628.49 -15508628.25 -15508628.02 0.0275 0.0041
 Jupiter -47166-03-10 09:35 J -15505890.27 -15505890.10 -15505889.91 0.0486 0.0313

Saturn -47160-02-28 00:14 J -15503708.67 -15503708.49 -15503708.29 0.0285 0.0187
 Saturn -47159-03-13 10:18 J -15503330.27 -15503330.07 -15503329.85 0.0283 0.0161
 Uranus -47153-09-17 12:42 J -15500950.09 -15500949.97 -15500949.83 0.0132 0.0112
 Uranus -47152-09-21 18:57 J -15500580.97 -15500580.71 -15500580.45 0.0132 0.0003
 Uranus -47151-09-25 21:35 J -15500211.76 -15500211.60 -15500211.42 0.0133 0.0094
 Saturn -47145-09-03 18:42 J -15498041.95 -15498041.72 -15498041.48 0.0275 0.0106
 Saturn -47144-09-16 06:14 J -15497664.40 -15497664.24 -15497664.08 0.0277 0.0207
 Pluto -47137-08-26 00:42 J -15495128.72 -15495128.47 -15495128.22 0.0080 0.0001
 Saturn -47130-03-07 21:50 J -15492743.83 -15492743.59 -15492743.36 0.0284 0.0007
 Jupiter -47125-09-07 22:47 J -15490732.78 -15490732.55 -15490732.33 0.0541 0.0031
 Mars -47119-01-31 11:02 J -15488761.21 -15488761.04 -15488760.88 0.1927 0.1062
 Saturn -47116-08-29 18:14 J -15487454.83 -15487454.74 -15487454.61 0.0274 0.0242
 Saturn -47115-09-11 12:42 J -15487077.20 -15487076.97 -15487076.74 0.0275 0.0072
 Neptune -47114-08-12 18:57 J -15486741.78 -15486741.71 -15486741.57 0.0088 0.0081
 Neptune -47113-08-14 12:57 J -15486374.17 -15486373.96 -15486373.71 0.0088 0.0044
 Neptune -47112-08-16 21:21 J -15486006.86 -15486006.61 -15486006.37 0.0088 0.0022
 Uranus -47111-03-16 23:02 J -15485794.71 -15485794.54 -15485794.36 0.0146 0.0106
 Mars -47111-08-04 04:04 J -15485654.46 -15485654.33 -15485654.21 0.1605 0.1132
 Neptune -47111-08-19 10:04 J -15485639.33 -15485639.08 -15485638.80 0.0088 0.0015
 Uranus -47110-03-22 10:33 J -15485424.30 -15485424.06 -15485423.81 0.0146 0.0038
 Neptune -47110-08-21 22:04 J -15485271.80 -15485271.58 -15485271.34 0.0088 0.0036
 Neptune -47109-08-23 05:45 J -15484904.38 -15484904.26 -15484904.07 0.0088 0.0073
 Saturn -47101-02-29 20:23 J -15482157.85 -15482157.65 -15482157.43 0.0285 0.0156
 Saturn -47100-03-14 08:52 J -15481779.30 -15481779.13 -15481778.94 0.0283 0.0190
 Jupiter -47095-03-05 13:54 J -15479962.15 -15479961.92 -15479961.69 0.0487 0.0114
 Saturn -47086-09-05 18:42 J -15476490.96 -15476490.72 -15476490.48 0.0275 0.0074
 Saturn -47085-09-17 11:45 J -15476113.13 -15476113.01 -15476112.89 0.0277 0.0236
 Jupiter -47083-03-09 11:59 J -15475575.20 -15475575.00 -15475574.79 0.0487 0.0260
 Saturn -47071-03-09 00:28 J -15471192.73 -15471192.48 -15471192.24 0.0284 0.0034
 Uranus -47069-09-17 22:47 J -15470268.67 -15470268.55 -15470268.39 0.0132 0.0107

Uranus -47068-09-22 04:18 J -15469899.58 -15469899.32 -15469899.06 0.0132 0.0005
 Uranus -47067-09-26 07:54 J -15469530.29 -15469530.17 -15469530.02 0.0133 0.0109
 Saturn -47057-08-31 02:38 J -15465903.54 -15465903.39 -15465903.23 0.0274 0.0209
 Saturn -47056-09-12 16:18 J -15465526.05 -15465525.82 -15465525.59 0.0276 0.0103
 Saturn -47042-03-02 22:33 J -15460606.78 -15460606.56 -15460606.34 0.0285 0.0123
 Jupiter -47042-09-08 08:23 J -15460417.39 -15460417.15 -15460416.91 0.0541 0.0092
 Saturn -47041-03-15 15:06 J -15460228.01 -15460227.87 -15460227.72 0.0283 0.0223
 Neptune -47032-02-07 08:52 J -15456977.21 -15456977.13 -15456977.02 0.0089 0.0082
 Mars -47032-08-06 00:28 J -15456797.67 -15456797.48 -15456797.30 0.1607 0.0139
 Neptune -47031-02-09 23:16 J -15456609.73 -15456609.53 -15456609.30 0.0089 0.0050
 Neptune -47030-02-12 10:47 J -15456242.28 -15456242.05 -15456241.80 0.0089 0.0024
 Jupiter -47030-09-13 10:33 J -15456029.11 -15456029.06 -15456029.00 0.0542 0.0524
 Neptune -47029-02-14 20:38 J -15455874.90 -15455874.64 -15455874.37 0.0089 0.0008
 Neptune -47028-02-16 12:14 J -15455507.21 -15455506.99 -15455506.75 0.0089 0.0035
 Neptune -47027-02-18 17:45 J -15455139.91 -15455139.76 -15455139.57 0.0089 0.0067
 Uranus -47027-03-17 07:54 J -15455113.35 -15455113.17 -15455112.97 0.0146 0.0096
 Saturn -47027-09-07 00:28 J -15454939.71 -15454939.48 -15454939.24 0.0275 0.0043
 Uranus -47026-03-22 19:11 J -15454742.93 -15454742.70 -15454742.45 0.0146 0.0048
 Saturn -47026-09-19 20:52 J -15454561.68 -15454561.63 -15454561.56 0.0277 0.0267
 Saturn -47013-02-25 11:30 J -15450020.06 -15450020.02 -15450019.97 0.0286 0.0280
 Jupiter -47012-03-04 16:04 J -15449647.05 -15449646.83 -15449646.60 0.0487 0.0165
 Saturn -47012-03-09 23:45 J -15449641.76 -15449641.51 -15449641.26 0.0284 0.0069

47TH MILLENNIUM BCE

This is a list of transits of Moon in the 47th millennium BCE.

	FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT								
	TIME								
Jupiter	-47000-03-09 04:47 J	-15445259.50	-15445259.30	-15445259.09	0.0487	0.0214			
Saturn	-46998-09-02 08:09 J	-15444352.34	-15444352.16	-15444351.96	0.0274	0.0174			
Saturn	-46997-09-13 18:42 J	-15443974.94	-15443974.72	-15443974.50	0.0276	0.0136			
Uranus	-46985-09-18 07:26 J	-15439587.33	-15439587.19	-15439587.02	0.0132	0.0103			
Uranus	-46984-09-22 11:30 J	-15439218.29	-15439218.02	-15439217.76	0.0132	0.0005			
Saturn	-46983-03-04 08:23 J	-15439055.37	-15439055.15	-15439054.92	0.0285	0.0087			
Uranus	-46983-09-26 16:47 J	-15438848.94	-15438848.80	-15438848.64	0.0133	0.0103			
Saturn	-46982-03-18 00:42 J	-15438676.56	-15438676.47	-15438676.37	0.0282	0.0259			
Pluto	-46979-02-21 11:59 J	-15437605.05	-15437605.00	-15437604.90	0.0064	0.0062			
Pluto	-46978-02-23 03:35 J	-15437238.61	-15437238.35	-15437238.07	0.0065	0.0007			
Saturn	-46968-09-08 11:45 J	-15433388.24	-15433388.01	-15433387.77	0.0275	0.0008			
Jupiter	-46959-09-07 04:33 J	-15430102.52	-15430102.31	-15430102.09	0.0541	0.0182			
Saturn	-46954-02-26 13:40 J	-15428469.05	-15428468.93	-15428468.79	0.0285	0.0244			
Saturn	-46953-03-11 01:54 J	-15428090.64	-15428090.42	-15428090.18	0.0283	0.0107			
Mars	-46953-08-08 04:18 J	-15427940.43	-15427940.32	-15427940.20	0.1609	0.1295			
Neptune	-46949-08-13 19:26 J	-15426473.86	-15426473.69	-15426473.48	0.0088	0.0059			
Neptune	-46948-08-16 08:23 J	-15426106.38	-15426106.15	-15426105.89	0.0088	0.0034			
Neptune	-46947-08-18 22:04 J	-15425738.83	-15425738.58	-15425738.33	0.0088	0.0001			
Jupiter	-46947-09-12 11:59 J	-15425714.15	-15425714.00	-15425713.84	0.0541	0.0399			
Neptune	-46946-08-21 06:14 J	-15425371.49	-15425371.24	-15425370.98	0.0088	0.0025			
Neptune	-46945-08-22 22:47 J	-15425003.71	-15425003.55	-15425003.33	0.0088	0.0060			
Neptune	-46944-08-25 03:50 J	-15424636.42	-15424636.34	-15424636.24	0.0088	0.0083			
Uranus	-46943-03-17 16:47 J	-15424431.97	-15424431.80	-15424431.60	0.0146	0.0098			
Uranus	-46942-03-23 04:04 J	-15424061.57	-15424061.33	-15424061.08	0.0146	0.0048			
Saturn	-46939-09-03 10:47 J	-15422801.26	-15422801.05	-15422800.83	0.0275	0.0139			
Saturn	-46938-09-16 00:42 J	-15422423.65	-15422423.47	-15422423.27	0.0276	0.0173			
Jupiter	-46929-03-04 04:18 J	-15419331.52	-15419331.32	-15419331.12	0.0487	0.0225			

Saturn -46924-03-05 20:52 J -15417503.87 -15417503.63 -15417503.39 0.0284 0.0047
 Jupiter -46917-03-08 06:57 J -15414944.44 -15414944.21 -15414943.97 0.0487 0.0148
 Saturn -46909-09-09 22:33 J -15411836.81 -15411836.56 -15411836.31 0.0275 0.0029
 Uranus -46901-09-18 17:02 J -15408905.92 -15408905.79 -15408905.60 0.0132 0.0101
 Uranus -46900-09-22 20:23 J -15408536.91 -15408536.65 -15408536.38 0.0132 0.0005
 Uranus -46899-09-27 03:06 J -15408167.48 -15408167.37 -15408167.25 0.0133 0.0116
 Saturn -46895-02-27 20:09 J -15406917.82 -15406917.66 -15406917.48 0.0285 0.0208
 Saturn -46894-03-13 12:42 J -15406539.17 -15406538.97 -15406538.76 0.0283 0.0145
 Pluto -46891-08-27 22:47 J -15405275.76 -15405275.55 -15405275.30 0.0080 0.0033
 Saturn -46880-09-04 18:14 J -15401249.96 -15401249.74 -15401249.51 0.0275 0.0103
 Saturn -46879-09-17 13:26 J -15400872.08 -15400871.94 -15400871.78 0.0277 0.0209
 Jupiter -46876-09-06 04:33 J -15399787.50 -15399787.31 -15399787.11 0.0540 0.0307
 Neptune -46867-02-09 10:04 J -15396709.20 -15396709.08 -15396708.89 0.0089 0.0070
 Neptune -46866-02-11 19:11 J -15396341.93 -15396341.70 -15396341.44 0.0089 0.0032
 Neptune -46865-02-14 11:45 J -15395974.26 -15395974.01 -15395973.76 0.0089 0.0010
 Saturn -46865-03-07 06:57 J -15395952.46 -15395952.21 -15395951.95 0.0284 0.0010
 Neptune -46864-02-15 17:02 J -15395607.02 -15395606.79 -15395606.53 0.0089 0.0028
 Jupiter -46864-09-11 05:02 J -15395399.48 -15395399.29 -15395399.09 0.0541 0.0296
 Neptune -46863-02-18 11:45 J -15395239.21 -15395239.01 -15395238.78 0.0089 0.0049
 Neptune -46862-02-20 16:33 J -15394871.84 -15394871.81 -15394871.74 0.0089 0.0087
 Uranus -46859-03-18 02:52 J -15393750.57 -15393750.38 -15393750.16 0.0146 0.0086
 Uranus -46858-03-23 13:40 J -15393380.16 -15393379.93 -15393379.68 0.0146 0.0057
 Saturn -46851-08-30 17:02 J -15390662.88 -15390662.79 -15390662.67 0.0274 0.0247
 Saturn -46850-09-12 04:33 J -15390285.55 -15390285.31 -15390285.06 0.0276 0.0064
 Jupiter -46846-03-04 05:45 J -15389016.45 -15389016.26 -15389016.06 0.0488 0.0295
 Saturn -46836-03-01 09:35 J -15385366.28 -15385366.10 -15385365.90 0.0285 0.0170
 Saturn -46835-03-15 04:18 J -15384987.49 -15384987.32 -15384987.13 0.0283 0.0186
 Jupiter -46834-03-08 12:42 J -15384629.19 -15384628.97 -15384628.75 0.0487 0.0079
 Mars -46827-08-05 17:45 J -15381921.93 -15381921.76 -15381921.59 0.1604 0.0742
 Jupiter -46822-03-12 21:50 J -15380241.61 -15380241.59 -15380241.56 0.0487 0.0483

Saturn -46821-09-06 07:11 J -15379698.42 -15379698.20 -15379697.97 0.0275 0.0070
 Saturn -46820-09-19 03:35 J -15379320.46 -15379320.35 -15379320.24 0.0277 0.0245
 Uranus -46817-09-19 01:40 J -15378224.59 -15378224.43 -15378224.25 0.0132 0.0095
 Uranus -46816-09-23 03:21 J -15377855.62 -15377855.36 -15377855.10 0.0132 0.0010
 Uranus -46815-09-27 11:16 J -15377486.15 -15377486.03 -15377485.89 0.0133 0.0111
 Saturn -46806-03-09 16:47 J -15374401.05 -15374400.80 -15374400.55 0.0284 0.0034
 Jupiter -46793-09-04 22:18 J -15369472.72 -15369472.57 -15369472.40 0.0540 0.0396
 Saturn -46792-09-01 00:57 J -15369111.61 -15369111.46 -15369111.29 0.0274 0.0212
 Saturn -46791-09-13 11:59 J -15368734.22 -15368734.00 -15368733.76 0.0276 0.0101
 Neptune -46785-08-13 08:23 J -15366573.27 -15366573.15 -15366573.01 0.0088 0.0077
 Neptune -46784-08-15 22:04 J -15366205.80 -15366205.58 -15366205.35 0.0088 0.0041
 Neptune -46783-08-18 05:16 J -15365838.54 -15365838.28 -15365838.02 0.0088 0.0018
 Neptune -46782-08-20 22:47 J -15365470.79 -15365470.55 -15365470.29 0.0088 0.0019
 Neptune -46781-08-22 03:21 J -15365103.57 -15365103.36 -15365103.11 0.0088 0.0041
 Jupiter -46781-09-10 10:47 J -15365084.26 -15365084.05 -15365083.84 0.0541 0.0199
 Neptune -46780-08-24 22:18 J -15364735.69 -15364735.57 -15364735.44 0.0088 0.0077
 Saturn -46777-03-03 02:52 J -15363814.59 -15363814.38 -15363814.16 0.0285 0.0128
 Saturn -46776-03-16 18:28 J -15363435.88 -15363435.73 -15363435.58 0.0283 0.0224
 Uranus -46775-03-18 11:45 J -15363069.20 -15363069.01 -15363068.81 0.0146 0.0089
 Uranus -46774-03-23 21:35 J -15362698.83 -15362698.60 -15362698.35 0.0146 0.0058
 Jupiter -46763-03-03 10:47 J -15358701.20 -15358701.05 -15358700.90 0.0488 0.0369
 Saturn -46762-09-08 20:23 J -15358146.89 -15358146.65 -15358146.41 0.0276 0.0033
 Mars -46756-02-02 21:50 J -15356172.77 -15356172.59 -15356172.41 0.1928 0.1074
 Jupiter -46751-03-07 19:11 J -15354313.94 -15354313.70 -15354313.46 0.0487 0.0003
 Saturn -46748-02-25 16:18 J -15353227.87 -15353227.82 -15353227.75 0.0285 0.0277
 Mars -46748-08-07 16:18 J -15353064.99 -15353064.82 -15353064.65 0.1605 0.0573
 Saturn -46747-03-11 05:59 J -15352849.49 -15352849.25 -15352849.01 0.0283 0.0075
 Jupiter -46739-03-11 18:57 J -15349926.82 -15349926.71 -15349926.58 0.0486 0.0416
 Saturn -46733-09-02 07:54 J -15347560.36 -15347560.17 -15347559.97 0.0274 0.0175
 Uranus -46733-09-19 11:30 J -15347543.19 -15347543.02 -15347542.85 0.0132 0.0095

Pluto -46732-02-23 21:50 J -15347385.84 -15347385.59 -15347385.33 0.0065 0.0010
 Saturn -46732-09-15 00:14 J -15347182.69 -15347182.49 -15347182.28 0.0276 0.0136
 Uranus -46732-09-23 12:14 J -15347174.25 -15347173.99 -15347173.73 0.0132 0.0012
 Uranus -46731-09-27 20:38 J -15346804.72 -15346804.64 -15346804.53 0.0133 0.0122
 Saturn -46718-03-05 18:14 J -15342262.98 -15342262.74 -15342262.50 0.0284 0.0086
 Saturn -46717-03-18 04:47 J -15341884.39 -15341884.30 -15341884.21 0.0282 0.0264
 Jupiter -46710-09-05 00:14 J -15339157.57 -15339157.49 -15339157.41 0.0539 0.0503
 Neptune -46703-02-08 19:11 J -15336808.80 -15336808.70 -15336808.58 0.0089 0.0080
 Saturn -46703-09-10 05:45 J -15336595.51 -15336595.26 -15336595.01 0.0276 0.0001
 Neptune -46702-02-11 11:45 J -15336441.21 -15336441.01 -15336440.78 0.0089 0.0047
 Neptune -46701-02-13 17:02 J -15336074.03 -15336073.79 -15336073.53 0.0089 0.0021
 Neptune -46700-02-15 11:45 J -15335706.26 -15335706.01 -15335705.75 0.0089 0.0012
 Neptune -46699-02-17 16:33 J -15335339.02 -15335338.81 -15335338.56 0.0089 0.0039
 Neptune -46698-02-20 09:35 J -15334971.24 -15334971.10 -15334970.92 0.0089 0.0071
 Jupiter -46698-09-10 00:42 J -15334769.71 -15334769.47 -15334769.23 0.0540 0.0067
 Uranus -46691-03-18 20:23 J -15332387.85 -15332387.65 -15332387.43 0.0146 0.0078
 Uranus -46690-03-24 05:45 J -15332017.49 -15332017.26 -15332017.02 0.0146 0.0062
 Saturn -46689-02-28 05:16 J -15331676.41 -15331676.28 -15331676.14 0.0285 0.0235
 Saturn -46688-03-12 22:47 J -15331297.76 -15331297.55 -15331297.33 0.0283 0.0118
 Jupiter -46680-03-02 18:42 J -15328385.81 -15328385.72 -15328385.61 0.0488 0.0441
 Saturn -46674-09-04 18:14 J -15326008.94 -15326008.74 -15326008.53 0.0274 0.0140
 Saturn -46673-09-16 13:54 J -15325631.10 -15325630.92 -15325630.73 0.0276 0.0171
 Jupiter -46668-03-06 17:30 J -15323999.00 -15323998.77 -15323998.54 0.0487 0.0071
 Saturn -46659-03-07 03:21 J -15320711.61 -15320711.36 -15320711.11 0.0284 0.0043
 Jupiter -46656-03-11 07:11 J -15319611.36 -15319611.20 -15319611.04 0.0487 0.0352
 Uranus -46649-09-19 19:26 J -15316861.87 -15316861.69 -15316861.50 0.0132 0.0088
 Uranus -46648-09-23 18:57 J -15316492.96 -15316492.71 -15316492.45 0.0132 0.0015
 Uranus -46647-09-28 04:33 J -15316123.40 -15316123.31 -15316123.18 0.0133 0.0118
 Pluto -46645-08-28 17:30 J -15315422.91 -15315422.77 -15315422.57 0.0080 0.0062
 Saturn -46644-09-11 09:35 J -15315044.35 -15315044.10 -15315043.85 0.0276 0.0035

Saturn -46630-03-01 21:06 J -15310124.78 -15310124.62 -15310124.44 0.0285 0.0196
 Saturn -46629-03-14 15:06 J -15309746.07 -15309745.87 -15309745.67 0.0283 0.0160
 Mars -46622-08-04 10:04 J -15307047.16 -15307047.08 -15307046.99 0.1601 0.1428
 Neptune -46620-08-15 04:47 J -15306305.50 -15306305.30 -15306305.08 0.0088 0.0054
 Neptune -46619-08-17 22:47 J -15305937.78 -15305937.55 -15305937.30 0.0088 0.0031
 Neptune -46618-08-20 03:50 J -15305570.60 -15305570.34 -15305570.08 0.0088 0.0005
 Neptune -46617-08-21 22:18 J -15305202.81 -15305202.57 -15305202.32 0.0088 0.0029
 Neptune -46616-08-24 03:35 J -15304835.50 -15304835.35 -15304835.15 0.0088 0.0065
 Neptune -46615-08-26 19:54 J -15304467.67 -15304467.67 -15304467.66 0.0088 0.0088
 Saturn -46615-09-06 07:40 J -15304457.40 -15304457.18 -15304456.96 0.0274 0.0105
 Jupiter -46615-09-09 01:11 J -15304454.68 -15304454.45 -15304454.23 0.0541 0.0031
 Saturn -46614-09-19 00:57 J -15304079.62 -15304079.46 -15304079.30 0.0276 0.0207
 Uranus -46607-03-19 03:21 J -15301706.54 -15301706.36 -15301706.15 0.0146 0.0086
 Uranus -46606-03-24 11:30 J -15301336.25 -15301336.02 -15301335.77 0.0146 0.0064
 Jupiter -46603-09-14 12:14 J -15300066.06 -15300065.99 -15300065.91 0.0541 0.0511
 Saturn -46600-03-08 10:33 J -15299160.31 -15299160.06 -15299159.82 0.0284 0.0005
 Saturn -46586-09-01 00:57 J -15293870.56 -15293870.46 -15293870.33 0.0274 0.0244
 Jupiter -46585-03-06 06:14 J -15293683.46 -15293683.24 -15293683.01 0.0488 0.0134
 Saturn -46585-09-12 13:54 J -15293493.15 -15293492.92 -15293492.68 0.0276 0.0068
 Jupiter -46573-03-10 04:33 J -15289296.50 -15289296.31 -15289296.12 0.0487 0.0290
 Saturn -46571-03-03 09:50 J -15288573.29 -15288573.09 -15288572.88 0.0285 0.0158
 Saturn -46570-03-16 23:30 J -15288194.68 -15288194.52 -15288194.32 0.0283 0.0197
 Uranus -46565-09-20 04:47 J -15286180.48 -15286180.30 -15286180.12 0.0132 0.0090
 Uranus -46564-09-24 03:35 J -15285811.61 -15285811.35 -15285811.09 0.0132 0.0019
 Uranus -46563-09-28 13:40 J -15285441.98 -15285441.93 -15285441.84 0.0133 0.0127
 Saturn -46556-09-07 17:02 J -15282906.03 -15282905.79 -15282905.55 0.0274 0.0072
 Saturn -46555-09-20 04:47 J -15282528.42 -15282528.30 -15282528.16 0.0276 0.0236
 Mars -46543-08-06 15:35 J -15278190.04 -15278189.85 -15278189.66 0.1602 0.0431
 Saturn -46541-03-09 20:09 J -15277608.89 -15277608.66 -15277608.42 0.0284 0.0033
 Neptune -46539-02-08 11:30 J -15276908.04 -15276908.02 -15276907.97 0.0089 0.0088

Neptune -46538-02-10 16:47 J -15276540.96 -15276540.80 -15276540.62 0.0089 0.0066
 Neptune -46537-02-13 11:30 J -15276173.26 -15276173.02 -15276172.77 0.0089 0.0028
 Neptune -46536-02-14 16:47 J -15275806.05 -15275805.80 -15275805.54 0.0089 0.0007
 Neptune -46535-02-17 09:21 J -15275438.34 -15275438.11 -15275437.85 0.0089 0.0032
 Neptune -46534-02-19 18:14 J -15275070.93 -15275070.74 -15275070.54 0.0089 0.0054
 Jupiter -46532-09-08 04:47 J -15274139.53 -15274139.30 -15274139.06 0.0540 0.0123
 Saturn -46527-09-02 04:33 J -15272319.45 -15272319.31 -15272319.15 0.0274 0.0214
 Saturn -46526-09-14 22:18 J -15271941.78 -15271941.57 -15271941.34 0.0276 0.0097
 Uranus -46523-03-19 11:59 J -15271025.20 -15271025.00 -15271024.77 0.0146 0.0073
 Uranus -46522-03-24 18:57 J -15270654.93 -15270654.71 -15270654.46 0.0146 0.0065
 Jupiter -46520-09-13 04:04 J -15269751.48 -15269751.33 -15269751.18 0.0541 0.0402
 Saturn -46512-03-04 14:52 J -15267022.09 -15267021.88 -15267021.64 0.0285 0.0126
 Saturn -46511-03-18 01:26 J -15266643.57 -15266643.44 -15266643.29 0.0283 0.0232
 Jupiter -46502-03-06 07:40 J -15263368.40 -15263368.18 -15263367.96 0.0487 0.0183
 Saturn -46497-09-08 18:57 J -15261354.96 -15261354.71 -15261354.45 0.0274 0.0043
 Saturn -46496-09-21 05:45 J -15260977.31 -15260977.26 -15260977.18 0.0276 0.0265
 Jupiter -46490-03-10 18:57 J -15258980.90 -15258980.71 -15258980.51 0.0487 0.0250
 Pluto -46486-02-25 23:59 J -15257532.71 -15257532.50 -15257532.25 0.0065 0.0027
 Pluto -46485-02-27 08:38 J -15257166.26 -15257166.14 -15257165.97 0.0065 0.0054
 Saturn -46482-03-12 05:16 J -15256057.51 -15256057.28 -15256057.05 0.0284 0.0066
 Uranus -46481-09-20 12:28 J -15255499.17 -15255498.98 -15255498.78 0.0132 0.0081
 Uranus -46480-09-24 10:33 J -15255130.31 -15255130.06 -15255129.80 0.0132 0.0020
 Uranus -46479-09-28 21:21 J -15254760.67 -15254760.61 -15254760.51 0.0133 0.0125
 Mars -46472-02-01 01:11 J -15252443.62 -15252443.45 -15252443.28 0.1932 0.1079
 Saturn -46468-09-03 11:16 J -15250768.20 -15250768.03 -15250767.86 0.0274 0.0187
 Saturn -46467-09-16 05:16 J -15250390.48 -15250390.28 -15250390.05 0.0276 0.0124
 Mars -46464-08-09 00:57 J -15249332.62 -15249332.46 -15249332.30 0.1604 0.0898
 Neptune -46456-08-14 22:47 J -15246404.68 -15246404.55 -15246404.40 0.0088 0.0074
 Neptune -46455-08-17 03:21 J -15246037.58 -15246037.36 -15246037.11 0.0088 0.0038
 Neptune -46454-08-19 21:35 J -15245669.85 -15245669.60 -15245669.33 0.0088 0.0015

Saturn -46453-03-05 13:40 J -15245471.16 -15245470.93 -15245470.68 0.0285 0.0092
 Neptune -46453-08-21 03:35 J -15245302.59 -15245302.35 -15245302.10 0.0088 0.0023
 Saturn -46452-03-19 03:35 J -15245092.43 -15245092.35 -15245092.26 0.0283 0.0263
 Neptune -46452-08-23 18:42 J -15244934.94 -15244934.72 -15244934.48 0.0088 0.0046
 Neptune -46451-08-26 05:16 J -15244567.36 -15244567.28 -15244567.18 0.0088 0.0082
 Jupiter -46449-09-06 20:38 J -15243824.84 -15243824.64 -15243824.43 0.0540 0.0243
 Uranus -46439-03-19 20:38 J -15240343.84 -15240343.64 -15240343.43 0.0146 0.0080
 Uranus -46438-03-25 02:09 J -15239973.64 -15239973.41 -15239973.18 0.0146 0.0071
 Saturn -46438-09-10 19:26 J -15239803.94 -15239803.69 -15239803.44 0.0274 0.0015
 Jupiter -46437-09-12 12:14 J -15239436.18 -15239435.99 -15239435.80 0.0541 0.0308
 Saturn -46424-02-27 16:18 J -15234884.91 -15234884.82 -15234884.72 0.0286 0.0261
 Saturn -46423-03-13 09:06 J -15234506.35 -15234506.12 -15234505.88 0.0284 0.0096
 Jupiter -46419-03-05 22:04 J -15233052.78 -15233052.58 -15233052.38 0.0488 0.0231
 Saturn -46409-09-04 17:02 J -15229216.98 -15229216.79 -15229216.59 0.0274 0.0157
 Saturn -46408-09-17 05:45 J -15228839.46 -15228839.26 -15228839.04 0.0276 0.0149
 Jupiter -46407-03-10 01:11 J -15228665.67 -15228665.45 -15228665.23 0.0487 0.0210
 Pluto -46398-09-01 19:54 J -15225202.83 -15225202.67 -15225202.49 0.0080 0.0059
 Uranus -46397-09-20 21:06 J -15224817.80 -15224817.62 -15224817.41 0.0132 0.0085
 Uranus -46396-09-24 19:11 J -15224448.95 -15224448.70 -15224448.45 0.0133 0.0026
 Uranus -46395-09-29 06:14 J -15224079.24 -15224079.24 -15224079.19 0.0133 0.0132
 Saturn -46394-03-07 12:28 J -15223920.21 -15223919.98 -15223919.74 0.0285 0.0062
 Saturn -46379-09-11 23:16 J -15218252.77 -15218252.53 -15218252.29 0.0274 0.0014
 Neptune -46374-02-10 10:47 J -15216640.16 -15216640.05 -15216639.92 0.0089 0.0078
 Neptune -46373-02-12 16:18 J -15216273.02 -15216272.82 -15216272.58 0.0089 0.0044
 Neptune -46372-02-14 08:52 J -15215905.38 -15215905.13 -15215904.86 0.0089 0.0017
 Neptune -46371-02-16 17:45 J -15215537.99 -15215537.76 -15215537.50 0.0089 0.0017
 Neptune -46370-02-19 05:02 J -15215170.50 -15215170.29 -15215170.04 0.0089 0.0043
 Neptune -46369-02-21 18:57 J -15214802.81 -15214802.71 -15214802.56 0.0089 0.0077
 Jupiter -46366-09-07 11:30 J -15213509.20 -15213509.02 -15213508.83 0.0540 0.0314
 Saturn -46365-02-29 17:30 J -15213333.92 -15213333.77 -15213333.62 0.0286 0.0229

Saturn -46364-03-14 05:59 J -15212955.47 -15212955.25 -15212955.01 0.0284 0.0126
 Uranus -46355-03-20 06:28 J -15209662.44 -15209662.23 -15209662.00 0.0146 0.0064
 Uranus -46354-03-25 10:47 J -15209292.26 -15209292.05 -15209291.80 0.0146 0.0072
 Jupiter -46354-09-12 12:14 J -15209121.20 -15209120.99 -15209120.78 0.0541 0.0240
 Saturn -46350-09-06 17:30 J -15207665.98 -15207665.77 -15207665.54 0.0274 0.0130
 Saturn -46349-09-18 02:09 J -15207288.59 -15207288.41 -15207288.20 0.0276 0.0172
 Mars -46338-08-06 00:57 J -15203314.59 -15203314.46 -15203314.32 0.1600 0.1047
 Jupiter -46336-03-05 06:42 J -15202737.42 -15202737.22 -15202737.01 0.0488 0.0269
 Saturn -46335-03-08 15:35 J -15202369.08 -15202368.85 -15202368.61 0.0285 0.0032
 Jupiter -46324-03-09 12:42 J -15198350.18 -15198349.97 -15198349.76 0.0487 0.0186
 Saturn -46321-08-31 12:14 J -15197079.04 -15197078.99 -15197078.92 0.0273 0.0263
 Saturn -46320-09-13 05:02 J -15196701.52 -15196701.29 -15196701.05 0.0274 0.0041
 Uranus -46313-09-21 05:02 J -15194136.49 -15194136.29 -15194136.07 0.0132 0.0074
 Uranus -46312-09-25 02:38 J -15193767.64 -15193767.39 -15193767.14 0.0132 0.0025
 Uranus -46311-09-29 13:40 J -15193397.93 -15193397.93 -15193397.87 0.0133 0.0132
 Saturn -46306-03-02 11:45 J -15191783.19 -15191783.01 -15191782.83 0.0286 0.0199
 Saturn -46305-03-15 01:26 J -15191404.64 -15191404.44 -15191404.22 0.0284 0.0156
 Neptune -46292-08-14 03:06 J -15186504.40 -15186504.37 -15186504.30 0.0088 0.0087
 Neptune -46291-08-16 21:35 J -15186136.80 -15186136.60 -15186136.37 0.0088 0.0050
 Saturn -46291-09-07 14:09 J -15186115.14 -15186114.91 -15186114.67 0.0274 0.0103
 Neptune -46290-08-19 04:33 J -15185769.55 -15185769.31 -15185769.07 0.0088 0.0027
 Saturn -46290-09-20 02:23 J -15185737.55 -15185737.40 -15185737.22 0.0276 0.0200
 Neptune -46289-08-20 19:11 J -15185401.96 -15185401.70 -15185401.43 0.0088 0.0009
 Neptune -46288-08-23 05:30 J -15185034.48 -15185034.27 -15185034.02 0.0088 0.0034
 Neptune -46287-08-25 14:52 J -15184667.02 -15184666.88 -15184666.69 0.0088 0.0070
 Jupiter -46283-09-06 08:38 J -15183194.29 -15183194.14 -15183193.97 0.0540 0.0396
 Saturn -46276-03-09 17:02 J -15180818.04 -15180817.79 -15180817.55 0.0285 0.0005
 Uranus -46271-03-20 15:35 J -15178981.05 -15178980.85 -15178980.62 0.0146 0.0073
 Jupiter -46271-09-11 15:50 J -15178806.06 -15178805.84 -15178805.62 0.0541 0.0134
 Uranus -46270-03-25 19:11 J -15178610.92 -15178610.70 -15178610.48 0.0146 0.0081

Saturn -46262-09-02 18:28 J -15175527.84 -15175527.73 -15175527.60 0.0273 0.0236
 Saturn -46261-09-14 08:23 J -15175150.38 -15175150.15 -15175149.90 0.0274 0.0070
 Mars -46259-08-07 20:09 J -15174457.84 -15174457.66 -15174457.47 0.1601 0.0166
 Jupiter -46253-03-04 16:18 J -15172421.99 -15172421.82 -15172421.64 0.0488 0.0307
 Saturn -46247-03-03 09:35 J -15170232.30 -15170232.10 -15170231.91 0.0286 0.0170
 Saturn -46246-03-17 03:35 J -15169853.52 -15169853.35 -15169853.16 0.0284 0.0184
 Jupiter -46241-03-09 04:04 J -15168034.55 -15168034.33 -15168034.10 0.0487 0.0148
 Pluto -46240-02-27 05:02 J -15167679.51 -15167679.29 -15167679.05 0.0065 0.0032
 Pluto -46239-02-28 13:11 J -15167313.11 -15167312.95 -15167312.77 0.0065 0.0048
 Saturn -46232-09-08 14:23 J -15164564.13 -15164563.90 -15164563.67 0.0274 0.0077
 Saturn -46231-09-21 07:40 J -15164186.31 -15164186.18 -15164186.04 0.0276 0.0226
 Uranus -46229-09-21 13:26 J -15163455.13 -15163454.94 -15163454.72 0.0132 0.0080
 Uranus -46228-09-25 11:16 J -15163086.27 -15163086.03 -15163085.78 0.0132 0.0033
 Saturn -46217-03-10 12:28 J -15159267.24 -15159266.98 -15159266.73 0.0285 0.0024
 Neptune -46210-02-09 15:50 J -15156739.88 -15156739.84 -15156739.76 0.0089 0.0086
 Neptune -46209-02-12 07:26 J -15156372.36 -15156372.19 -15156371.99 0.0089 0.0063
 Neptune -46208-02-13 17:16 J -15156005.00 -15156004.78 -15156004.53 0.0089 0.0026
 Neptune -46207-02-16 04:47 J -15155637.56 -15155637.30 -15155637.03 0.0089 0.0003
 Neptune -46206-02-18 19:54 J -15155269.90 -15155269.67 -15155269.45 0.0089 0.0035
 Neptune -46205-02-21 02:09 J -15154902.59 -15154902.41 -15154902.20 0.0089 0.0058
 Saturn -46203-09-03 22:33 J -15153976.72 -15153976.56 -15153976.40 0.0273 0.0207
 Saturn -46202-09-16 07:26 J -15153599.43 -15153599.19 -15153598.95 0.0275 0.0095
 Jupiter -46200-09-05 13:54 J -15152878.99 -15152878.92 -15152878.84 0.0540 0.0505
 Saturn -46188-03-04 13:11 J -15148681.15 -15148680.95 -15148680.74 0.0286 0.0144
 Jupiter -46188-09-10 19:54 J -15148490.91 -15148490.67 -15148490.43 0.0541 0.0071
 Saturn -46187-03-18 08:09 J -15148302.30 -15148302.16 -15148301.99 0.0284 0.0212
 Uranus -46187-03-21 01:26 J -15148299.66 -15148299.44 -15148299.20 0.0146 0.0055
 Uranus -46186-03-26 03:35 J -15147929.57 -15147929.35 -15147929.12 0.0146 0.0078
 Mars -46180-08-09 21:06 J -15145600.77 -15145600.62 -15145600.47 0.1602 0.1025
 Saturn -46173-09-09 20:38 J -15143012.86 -15143012.64 -15143012.40 0.0274 0.0053

Saturn -46172-09-22 13:11 J -15142635.03 -15142634.95 -15142634.84 0.0276 0.0254
 Jupiter -46170-03-05 07:11 J -15142106.36 -15142106.20 -15142106.03 0.0488 0.0350
 Jupiter -46158-03-09 07:40 J -15137719.41 -15137719.18 -15137718.96 0.0487 0.0104
 Saturn -46158-03-12 08:38 J -15137716.38 -15137716.14 -15137715.89 0.0285 0.0052
 Pluto -46152-09-02 16:47 J -15135349.99 -15135349.80 -15135349.57 0.0079 0.0050
 Uranus -46145-09-21 21:21 J -15132773.81 -15132773.61 -15132773.37 0.0132 0.0068
 Saturn -46144-09-04 21:35 J -15132425.78 -15132425.60 -15132425.40 0.0273 0.0182
 Uranus -46144-09-25 19:26 J -15132404.93 -15132404.69 -15132404.44 0.0132 0.0030
 Saturn -46143-09-17 07:26 J -15132048.41 -15132048.19 -15132047.97 0.0275 0.0121
 Saturn -46129-03-05 19:26 J -15127129.90 -15127129.69 -15127129.46 0.0285 0.0112
 Saturn -46128-03-19 10:04 J -15126751.20 -15126751.08 -15126750.94 0.0284 0.0240
 Neptune -46127-08-16 03:06 J -15126236.49 -15126236.37 -15126236.19 0.0088 0.0071
 Neptune -46126-08-18 17:16 J -15125869.01 -15125868.78 -15125868.51 0.0088 0.0035
 Neptune -46125-08-20 05:16 J -15125501.52 -15125501.28 -15125501.03 0.0088 0.0010
 Neptune -46124-08-22 14:38 J -15125134.14 -15125133.89 -15125133.63 0.0088 0.0027
 Neptune -46123-08-25 06:28 J -15124766.41 -15124766.23 -15124766.00 0.0088 0.0052
 Neptune -46122-08-27 11:59 J -15124399.03 -15124399.00 -15124398.94 0.0088 0.0087
 Saturn -46114-09-12 04:04 J -15121461.57 -15121461.33 -15121461.08 0.0274 0.0023
 Mars -46109-02-04 13:40 J -15119855.12 -15119854.93 -15119854.74 0.1932 0.0059
 Jupiter -46105-09-09 23:45 J -15118175.73 -15118175.51 -15118175.28 0.0540 0.0011
 Uranus -46103-03-21 09:21 J -15117618.31 -15117618.11 -15117617.87 0.0146 0.0067
 Uranus -46102-03-26 10:47 J -15117248.26 -15117248.05 -15117247.84 0.0146 0.0089
 Saturn -46100-02-27 17:45 J -15116543.81 -15116543.76 -15116543.67 0.0286 0.0274
 Saturn -46099-03-13 11:45 J -15116165.23 -15116165.01 -15116164.77 0.0284 0.0083
 Jupiter -46087-03-04 10:47 J -15111791.18 -15111791.05 -15111790.91 0.0489 0.0395
 Saturn -46085-09-05 23:30 J -15110874.72 -15110874.52 -15110874.31 0.0274 0.0152
 Saturn -46084-09-18 15:06 J -15110497.07 -15110496.87 -15110496.67 0.0275 0.0152
 Jupiter -46075-03-08 23:30 J -15107403.75 -15107403.52 -15107403.29 0.0488 0.0062
 Saturn -46070-03-08 00:42 J -15105578.71 -15105578.47 -15105578.23 0.0285 0.0077
 Saturn -46069-03-20 11:02 J -15105200.11 -15105200.04 -15105199.95 0.0284 0.0270

Jupiter -46063-03-12 23:45 J -15103016.57 -15103016.51 -15103016.44 0.0487 0.0466
 Uranus -46061-09-22 06:14 J -15102092.45 -15102092.24 -15102092.02 0.0132 0.0074
 Uranus -46060-09-26 04:18 J -15101723.54 -15101723.32 -15101723.07 0.0132 0.0041
 Saturn -46055-09-13 07:40 J -15099910.43 -15099910.18 -15099909.92 0.0274 0.0008
 Mars -46054-08-07 12:14 J -15099582.16 -15099581.99 -15099581.81 0.1599 0.0695
 Neptune -46045-02-11 17:02 J -15096471.89 -15096471.79 -15096471.65 0.0089 0.0077
 Neptune -46044-02-13 02:52 J -15096104.60 -15096104.38 -15096104.12 0.0089 0.0041
 Neptune -46043-02-15 18:14 J -15095736.98 -15095736.74 -15095736.49 0.0089 0.0015
 Neptune -46042-02-18 00:28 J -15095369.73 -15095369.48 -15095369.22 0.0089 0.0021
 Neptune -46041-02-20 18:28 J -15095001.92 -15095001.73 -15095001.49 0.0089 0.0047
 Saturn -46041-03-01 00:57 J -15094992.59 -15094992.46 -15094992.33 0.0286 0.0240
 Neptune -46040-02-21 23:30 J -15094634.61 -15094634.52 -15094634.41 0.0089 0.0081
 Saturn -46040-03-14 21:06 J -15094613.83 -15094613.62 -15094613.40 0.0284 0.0115
 Saturn -46026-09-08 07:40 J -15089323.39 -15089323.18 -15089322.96 0.0274 0.0120
 Saturn -46025-09-20 02:09 J -15088945.57 -15088945.41 -15088945.22 0.0276 0.0184
 Jupiter -46022-09-09 22:18 J -15087860.81 -15087860.57 -15087860.34 0.0540 0.0125
 Uranus -46019-03-21 18:14 J -15086936.96 -15086936.74 -15086936.49 0.0146 0.0050
 Uranus -46018-03-26 18:14 J -15086566.95 -15086566.74 -15086566.52 0.0146 0.0083
 Saturn -46011-03-09 04:33 J -15084027.56 -15084027.31 -15084027.06 0.0285 0.0041
 Jupiter -46010-09-14 23:30 J -15083472.58 -15083472.52 -15083472.45 0.0541 0.0517
 Jupiter -46004-03-04 00:42 J -15081475.56 -15081475.47 -15081475.37 0.0489 0.0444

46TH MILLENNIUM BCE

This is a list of transits of Moon in the 46th millennium BCE.

FROM MAX- C START MAX END SUNRAD DEPTH S

TRANSIT

TIME

Saturn -45997-09-02 03:06 J -15078736.43 -15078736.37 -15078736.28 0.0273 0.0260
Saturn -45996-09-14 11:30 J -15078359.27 -15078359.02 -15078358.77 0.0275 0.0039
Pluto -45994-03-01 01:40 J -15077826.63 -15077826.43 -15077826.20 0.0065 0.0037
Pluto -45993-03-01 20:23 J -15077459.84 -15077459.65 -15077459.44 0.0065 0.0041
Jupiter -45992-03-07 23:59 J -15077088.75 -15077088.50 -15077088.26 0.0488 0.0008
Saturn -45982-03-03 13:40 J -15073441.09 -15073440.93 -15073440.75 0.0286 0.0204
Saturn -45981-03-16 07:11 J -15073062.40 -15073062.20 -15073061.98 0.0284 0.0153
Jupiter -45980-03-12 09:35 J -15072701.21 -15072701.10 -15072700.96 0.0487 0.0405
Uranus -45977-09-22 14:23 J -15071411.12 -15071410.90 -15071410.65 0.0132 0.0060
Uranus -45976-09-26 13:26 J -15071042.18 -15071041.94 -15071041.70 0.0132 0.0037
Mars -45975-08-09 12:28 J -15070725.16 -15070724.98 -15070724.80 0.1600 0.0274
Saturn -45967-09-09 19:40 J -15067771.91 -15067771.68 -15067771.45 0.0274 0.0087
Saturn -45966-09-22 11:02 J -15067394.18 -15067394.04 -15067393.88 0.0276 0.0218
Neptune -45963-08-15 16:18 J -15066335.88 -15066335.82 -15066335.72 0.0088 0.0085
Neptune -45962-08-18 04:47 J -15065968.49 -15065968.30 -15065968.06 0.0088 0.0048
Neptune -45961-08-19 13:40 J -15065601.18 -15065600.93 -15065600.67 0.0088 0.0024
Neptune -45960-08-22 06:28 J -15065233.48 -15065233.23 -15065232.98 0.0088 0.0014
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Neptune -45958-08-27 05:59 J -15064498.39 -15064498.25 -15064498.11 0.0088 0.0074
Saturn -45952-03-10 13:40 J -15062476.17 -15062475.93 -15062475.69 0.0285 0.0002
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Saturn -45938-09-04 07:26 J -15057185.31 -15057185.19 -15057185.04 0.0273 0.0229
Saturn -45937-09-15 20:23 J -15056807.88 -15056807.65 -15056807.42 0.0275 0.0077
Uranus -45935-03-22 03:06 J -15056255.59 -15056255.37 -15056255.14 0.0146 0.0059
Uranus -45934-03-27 01:40 J -15055885.60 -15055885.43 -15055885.21 0.0146 0.0099
Jupiter -45927-09-14 08:52 J -15053157.26 -15053157.13 -15053156.99 0.0541 0.0429
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Saturn -45922-03-18 14:52 J -15051511.06 -15051510.88 -15051510.68 0.0284 0.0189

Jupiter -45909-03-07 08:52 J -15046773.35 -15046773.13 -15046772.90 0.0488 0.0059
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 Saturn -45907-09-23 17:02 J -15045842.88 -15045842.79 -15045842.68 0.0276 0.0252
 Pluto -45906-09-04 18:14 J -15045496.94 -15045496.74 -15045496.53 0.0079 0.0046
 Jupiter -45897-03-11 13:40 J -15042386.10 -15042385.93 -15042385.75 0.0487 0.0333
 Mars -45896-08-11 06:42 J -15041868.30 -15041868.22 -15041868.13 0.1601 0.1414
 Saturn -45893-03-12 05:59 J -15040924.48 -15040924.25 -15040924.01 0.0285 0.0038
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 Uranus -45892-09-26 23:16 J -15040360.75 -15040360.53 -15040360.29 0.0132 0.0049
 Neptune -45881-02-11 00:57 J -15036571.50 -15036571.46 -15036571.35 0.0089 0.0085
 Neptune -45880-02-12 17:02 J -15036203.95 -15036203.79 -15036203.58 0.0089 0.0061
 Neptune -45879-02-14 23:02 J -15035836.78 -15035836.54 -15035836.27 0.0089 0.0023
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 Neptune -45878-02-17 17:45 J -15035469.01 -15035468.76 -15035468.50 0.0089 0.0001
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 Saturn -45863-03-19 23:02 J -15029959.67 -15029959.54 -15029959.38 0.0284 0.0227
 Jupiter -45856-09-07 21:35 J -15027230.79 -15027230.60 -15027230.42 0.0539 0.0327
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 Saturn -45834-03-14 23:59 J -15019372.73 -15019372.50 -15019372.27 0.0284 0.0078
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 Mars -45825-02-04 01:54 J -15016124.58 -15016124.42 -15016124.27 0.1934 0.1149
 Saturn -45820-09-07 07:11 J -15014082.38 -15014082.20 -15014082.00 0.0274 0.0164
 Saturn -45819-09-20 00:14 J -15013704.68 -15013704.49 -15013704.27 0.0275 0.0146

Jupiter -45814-03-11 15:50 J -15012071.03 -15012070.84 -15012070.65 0.0487 0.0261
 Uranus -45809-09-23 08:38 J -15010048.38 -15010048.14 -15010047.89 0.0132 0.0049
 Uranus -45808-09-27 09:06 J -15009679.34 -15009679.12 -15009678.88 0.0132 0.0045
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 Neptune -45797-08-19 04:33 J -15005700.54 -15005700.31 -15005700.07 0.0088 0.0033
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 Neptune -45794-08-26 09:35 J -15004598.29 -15004598.10 -15004597.89 0.0088 0.0055
 Saturn -45790-09-14 17:59 J -15003118.00 -15003117.75 -15003117.51 0.0275 0.0009
 Saturn -45776-03-02 21:50 J -14998199.72 -14998199.59 -14998199.45 0.0286 0.0237
 Saturn -45775-03-16 13:11 J -14997821.18 -14997820.95 -14997820.72 0.0284 0.0119
 Jupiter -45773-09-06 08:52 J -14996916.26 -14996916.13 -14996916.00 0.0539 0.0450
 Mars -45770-08-08 09:50 J -14995850.28 -14995850.09 -14995849.90 0.1598 0.0479
 Uranus -45767-03-22 23:59 J -14994892.74 -14994892.50 -14994892.26 0.0146 0.0048
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 Saturn -45761-09-08 20:23 J -14992530.86 -14992530.65 -14992530.44 0.0274 0.0129
 Jupiter -45761-09-11 23:02 J -14992527.74 -14992527.54 -14992527.33 0.0540 0.0199
 Saturn -45760-09-21 08:09 J -14992153.33 -14992153.16 -14992152.95 0.0275 0.0180
 Pluto -45748-03-02 07:26 J -14987973.39 -14987973.19 -14987972.96 0.0065 0.0034
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 Saturn -45746-03-10 11:02 J -14987235.27 -14987235.04 -14987234.80 0.0285 0.0046
 Jupiter -45743-03-06 14:38 J -14986143.10 -14986142.89 -14986142.68 0.0489 0.0201
 Saturn -45732-09-03 12:42 J -14981944.03 -14981943.97 -14981943.89 0.0274 0.0262
 Jupiter -45731-03-11 00:57 J -14981755.68 -14981755.46 -14981755.24 0.0488 0.0185
 Saturn -45731-09-16 04:33 J -14981566.54 -14981566.31 -14981566.07 0.0275 0.0043
 Uranus -45725-09-23 17:59 J -14979366.98 -14979366.75 -14979366.50 0.0132 0.0056
 Uranus -45724-09-27 19:54 J -14978997.88 -14978997.67 -14978997.45 0.0132 0.0060
 Saturn -45717-03-04 09:50 J -14976648.26 -14976648.09 -14976647.90 0.0286 0.0196

Neptune -45716-02-11 21:06 J -14976303.74 -14976303.62 -14976303.48 0.0089 0.0076
 Saturn -45716-03-17 21:35 J -14976269.80 -14976269.60 -14976269.38 0.0284 0.0157
 Neptune -45715-02-14 15:35 J -14975936.07 -14975935.85 -14975935.61 0.0089 0.0039
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 Neptune -45713-02-19 13:26 J -14975201.19 -14975200.94 -14975200.68 0.0089 0.0023
 Neptune -45712-02-20 20:52 J -14974833.82 -14974833.63 -14974833.41 0.0089 0.0049
 Neptune -45711-02-23 10:04 J -14974466.12 -14974466.08 -14974465.96 0.0089 0.0085
 Saturn -45702-09-11 04:18 J -14970979.55 -14970979.32 -14970979.08 0.0274 0.0093
 Saturn -45701-09-22 13:11 J -14970602.10 -14970601.95 -14970601.79 0.0275 0.0211
 Mars -45691-08-10 18:57 J -14966992.90 -14966992.71 -14966992.53 0.1599 0.0617
 Jupiter -45690-09-06 18:14 J -14966600.78 -14966600.74 -14966600.69 0.0539 0.0527
 Saturn -45687-03-12 02:23 J -14965683.64 -14965683.40 -14965683.16 0.0285 0.0008
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 Jupiter -45678-09-11 19:40 J -14962212.92 -14962212.68 -14962212.44 0.0539 0.0100
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 Saturn -45672-09-17 15:21 J -14960015.09 -14960014.86 -14960014.63 0.0275 0.0074
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 Pluto -45660-09-06 07:40 J -14955643.33 -14955643.18 -14955642.98 0.0079 0.0057
 Saturn -45658-03-06 15:50 J -14955097.05 -14955096.84 -14955096.63 0.0286 0.0159
 Saturn -45657-03-19 05:45 J -14954718.43 -14954718.26 -14954718.08 0.0284 0.0197
 Jupiter -45648-03-10 00:57 J -14951440.68 -14951440.46 -14951440.23 0.0488 0.0119
 Saturn -45643-09-12 07:54 J -14949428.41 -14949428.17 -14949427.92 0.0274 0.0062
 Saturn -45642-09-24 20:38 J -14949050.74 -14949050.64 -14949050.53 0.0275 0.0246
 Uranus -45641-09-24 03:35 J -14948685.59 -14948685.35 -14948685.09 0.0132 0.0039
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Neptune -45630-08-25 23:02 J -14944697.76 -14944697.54 -14944697.28 0.0088 0.0039
 Neptune -45629-08-27 07:54 J -14944330.26 -14944330.17 -14944330.02 0.0088 0.0078
 Saturn -45628-03-13 13:40 J -14944132.17 -14944131.93 -14944131.68 0.0285 0.0031
 Saturn -45614-09-07 07:11 J -14938841.35 -14938841.20 -14938841.03 0.0274 0.0202
 Saturn -45613-09-18 22:04 J -14938463.80 -14938463.58 -14938463.35 0.0275 0.0107
 Saturn -45599-03-07 20:52 J -14933545.85 -14933545.63 -14933545.41 0.0285 0.0126
 Uranus -45599-03-23 20:52 J -14933529.87 -14933529.63 -14933529.38 0.0146 0.0036
 Saturn -45598-03-21 15:06 J -14933166.99 -14933166.87 -14933166.72 0.0284 0.0231
 Uranus -45598-03-28 17:45 J -14933159.88 -14933159.76 -14933159.60 0.0146 0.0124
 Jupiter -45595-09-10 14:38 J -14931898.11 -14931897.89 -14931897.66 0.0540 0.0018
 Saturn -45584-09-13 12:28 J -14927877.22 -14927876.98 -14927876.74 0.0274 0.0031
 Jupiter -45577-03-05 01:40 J -14925512.60 -14925512.43 -14925512.26 0.0489 0.0329
 Saturn -45569-03-14 17:02 J -14922581.04 -14922580.79 -14922580.54 0.0285 0.0061
 Jupiter -45565-03-09 15:06 J -14921125.10 -14921124.87 -14921124.64 0.0488 0.0054
 Mars -45565-08-06 23:30 J -14920974.60 -14920974.52 -14920974.45 0.1597 0.1432
 Uranus -45557-09-24 13:26 J -14918004.17 -14918003.94 -14918003.68 0.0132 0.0046
 Uranus -45556-09-28 17:30 J -14917634.97 -14917634.77 -14917634.56 0.0132 0.0071
 Saturn -45555-09-08 13:11 J -14917290.14 -14917289.95 -14917289.76 0.0274 0.0173
 Saturn -45554-09-20 22:33 J -14916912.78 -14916912.56 -14916912.34 0.0275 0.0134
 Jupiter -45553-03-13 14:09 J -14916737.99 -14916737.91 -14916737.83 0.0488 0.0458
 Neptune -45552-02-11 12:57 J -14916403.02 -14916402.96 -14916402.88 0.0089 0.0085
 Neptune -45551-02-13 18:14 J -14916035.93 -14916035.74 -14916035.56 0.0089 0.0060
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 Neptune -45549-02-18 19:11 J -14915300.95 -14915300.70 -14915300.45 0.0089 0.0002
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 Neptune -45547-02-22 19:54 J -14914565.82 -14914565.67 -14914565.48 0.0089 0.0064
 Saturn -45540-03-09 04:47 J -14911994.52 -14911994.30 -14911994.07 0.0285 0.0097
 Saturn -45539-03-22 23:59 J -14911615.58 -14911615.50 -14911615.39 0.0284 0.0261
 Saturn -45525-09-14 21:06 J -14906325.86 -14906325.62 -14906325.38 0.0274 0.0003
 Uranus -45515-03-24 06:57 J -14902848.47 -14902848.21 -14902847.96 0.0146 0.0015

Uranus -45514-03-29 03:50 J -14902478.48 -14902478.34 -14902478.17 0.0146 0.0115
 Jupiter -45512-09-10 00:28 J -14901582.72 -14901582.48 -14901582.25 0.0540 0.0085
 Saturn -45511-03-03 02:23 J -14901408.47 -14901408.40 -14901408.30 0.0286 0.0269
 Saturn -45510-03-16 16:18 J -14901030.05 -14901029.82 -14901029.58 0.0285 0.0088
 Pluto -45502-03-04 17:59 J -14898119.96 -14898119.75 -14898119.52 0.0065 0.0033
 Pluto -45501-03-05 00:28 J -14897753.65 -14897753.48 -14897753.25 0.0065 0.0042
 Jupiter -45500-09-15 01:54 J -14897194.52 -14897194.42 -14897194.32 0.0540 0.0479
 Saturn -45496-09-09 11:30 J -14895739.22 -14895739.02 -14895738.80 0.0274 0.0149
 Saturn -45495-09-21 21:21 J -14895361.80 -14895361.61 -14895361.40 0.0275 0.0161
 Jupiter -45494-03-05 16:04 J -14895196.96 -14895196.83 -14895196.69 0.0490 0.0390
 Mars -45486-08-09 17:30 J -14892117.95 -14892117.77 -14892117.59 0.1598 0.0154
 Jupiter -45482-03-09 17:59 J -14890809.99 -14890809.75 -14890809.51 0.0488 0.0004
 Saturn -45481-03-10 10:04 J -14890443.31 -14890443.08 -14890442.84 0.0285 0.0069
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 Uranus -45472-09-29 04:18 J -14886953.53 -14886953.32 -14886953.10 0.0132 0.0065
 Jupiter -45470-03-14 05:30 J -14886422.37 -14886422.27 -14886422.16 0.0487 0.0427
 Neptune -45469-08-17 21:35 J -14885899.76 -14885899.60 -14885899.42 0.0088 0.0067
 Neptune -45468-08-20 03:50 J -14885532.56 -14885532.34 -14885532.10 0.0088 0.0033
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 Neptune -45465-08-26 16:33 J -14884430.00 -14884429.81 -14884429.59 0.0088 0.0057
 Mars -45462-02-06 14:09 J -14883536.11 -14883535.91 -14883535.71 0.1933 0.0428
 Saturn -45452-03-04 00:57 J -14879857.58 -14879857.46 -14879857.31 0.0286 0.0242
 Saturn -45451-03-17 19:40 J -14879478.90 -14879478.68 -14879478.46 0.0285 0.0115
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 Saturn -45436-09-23 01:40 J -14873810.60 -14873810.43 -14873810.25 0.0275 0.0189
 Uranus -45431-03-24 16:18 J -14872167.07 -14872166.82 -14872166.57 0.0147 0.0025
 Uranus -45430-03-29 13:11 J -14871797.03 -14871796.95 -14871796.83 0.0146 0.0135
 Jupiter -45429-09-08 22:33 J -14871267.78 -14871267.56 -14871267.34 0.0539 0.0170

Saturn -45422-03-12 07:54 J -14868892.42 -14868892.17 -14868891.92 0.0285 0.0043
 Jupiter -45417-09-14 06:14 J -14866879.41 -14866879.24 -14866879.07 0.0540 0.0360
 Pluto -45415-09-06 05:45 J -14866157.28 -14866157.26 -14866157.22 0.0080 0.0079
 Pluto -45414-09-08 16:18 J -14865789.94 -14865789.82 -14865789.63 0.0079 0.0064
 Jupiter -45411-03-04 23:30 J -14864881.62 -14864881.52 -14864881.40 0.0490 0.0431
 Saturn -45408-09-05 18:14 J -14863600.81 -14863600.74 -14863600.64 0.0273 0.0254
 Mars -45407-08-11 17:16 J -14863260.94 -14863260.78 -14863260.62 0.1599 0.0865
 Saturn -45407-09-18 04:04 J -14863223.58 -14863223.33 -14863223.08 0.0274 0.0052
 Jupiter -45399-03-09 08:52 J -14860494.35 -14860494.13 -14860493.90 0.0488 0.0042
 Saturn -45393-03-05 02:52 J -14858306.53 -14858306.38 -14858306.22 0.0286 0.0216
 Saturn -45392-03-18 23:59 J -14857927.70 -14857927.50 -14857927.29 0.0285 0.0141
 Uranus -45390-09-22 06:57 J -14857010.27 -14857010.21 -14857010.11 0.0132 0.0125
 Uranus -45389-09-25 10:18 J -14856641.31 -14856641.07 -14856640.81 0.0132 0.0034
 Uranus -45388-09-29 16:04 J -14856272.01 -14856271.83 -14856271.63 0.0132 0.0083
 Neptune -45387-02-13 06:42 J -14856135.33 -14856135.22 -14856135.06 0.0089 0.0077
 Jupiter -45387-03-13 15:35 J -14856106.98 -14856106.85 -14856106.69 0.0487 0.0387
 Neptune -45386-02-15 15:50 J -14855768.05 -14855767.84 -14855767.61 0.0089 0.0039
 Neptune -45385-02-18 03:50 J -14855400.60 -14855400.34 -14855400.08 0.0089 0.0014
 Neptune -45384-02-19 17:45 J -14855033.00 -14855032.76 -14855032.52 0.0089 0.0024
 Neptune -45383-02-22 00:28 J -14854665.68 -14854665.48 -14854665.24 0.0089 0.0049
 Neptune -45382-02-24 17:59 J -14854297.78 -14854297.75 -14854297.68 0.0089 0.0087
 Saturn -45378-09-12 14:52 J -14852637.10 -14852636.88 -14852636.66 0.0273 0.0096
 Saturn -45377-09-24 07:11 J -14852259.33 -14852259.20 -14852259.04 0.0275 0.0217
 Saturn -45363-03-13 02:09 J -14847341.66 -14847341.41 -14847341.15 0.0285 0.0021
 Saturn -45349-09-06 19:11 J -14842049.84 -14842049.70 -14842049.56 0.0273 0.0225
 Saturn -45348-09-19 01:40 J -14841672.66 -14841672.43 -14841672.18 0.0274 0.0079
 Uranus -45347-03-25 02:38 J -14841485.65 -14841485.39 -14841485.13 0.0147 0.0004
 Uranus -45346-03-29 23:59 J -14841115.61 -14841115.50 -14841115.35 0.0146 0.0127
 Jupiter -45346-09-09 04:33 J -14840952.51 -14840952.31 -14840952.11 0.0539 0.0274
 Saturn -45334-03-07 06:57 J -14836755.38 -14836755.21 -14836755.02 0.0286 0.0190

Jupiter -45334-09-14 07:11 J -14836564.39 -14836564.20 -14836563.99 0.0540 0.0286
 Saturn -45333-03-20 00:28 J -14836376.67 -14836376.48 -14836376.27 0.0285 0.0168
 Jupiter -45328-03-04 12:42 J -14834565.99 -14834565.97 -14834565.93 0.0490 0.0485
 Saturn -45319-09-13 20:38 J -14831085.88 -14831085.64 -14831085.41 0.0273 0.0069
 Saturn -45318-09-26 08:23 J -14830708.24 -14830708.15 -14830708.02 0.0275 0.0246
 Jupiter -45316-03-08 19:11 J -14830178.94 -14830178.70 -14830178.46 0.0489 0.0093
 Uranus -45306-09-22 19:40 J -14826328.71 -14826328.68 -14826328.64 0.0132 0.0130
 Neptune -45305-08-16 23:30 J -14825999.54 -14825999.52 -14825999.44 0.0088 0.0087
 Uranus -45305-09-25 21:21 J -14825959.87 -14825959.61 -14825959.35 0.0132 0.0014
 Jupiter -45304-03-12 22:33 J -14825791.72 -14825791.56 -14825791.40 0.0488 0.0352
 Saturn -45304-03-13 23:59 J -14825790.74 -14825790.50 -14825790.26 0.0285 0.0005
 Neptune -45304-08-19 14:23 J -14825632.12 -14825631.90 -14825631.66 0.0088 0.0047
 Uranus -45304-09-30 03:35 J -14825590.54 -14825590.35 -14825590.14 0.0132 0.0078
 Neptune -45303-08-22 01:26 J -14825264.68 -14825264.44 -14825264.19 0.0088 0.0024
 Neptune -45302-08-24 11:02 J -14824897.29 -14824897.04 -14824896.77 0.0088 0.0017
 Neptune -45301-08-26 02:52 J -14824529.59 -14824529.38 -14824529.13 0.0088 0.0040
 Neptune -45300-08-28 08:38 J -14824162.23 -14824162.14 -14824161.99 0.0088 0.0079
 Saturn -45290-09-08 16:47 J -14820498.96 -14820498.80 -14820498.62 0.0273 0.0201
 Saturn -45289-09-20 04:18 J -14820121.53 -14820121.32 -14820121.09 0.0274 0.0110
 Mars -45281-08-08 09:21 J -14817242.25 -14817242.11 -14817241.96 0.1597 0.1087
 Saturn -45275-03-08 08:09 J -14815204.36 -14815204.16 -14815203.95 0.0286 0.0164
 Saturn -45274-03-21 20:52 J -14814825.80 -14814825.63 -14814825.43 0.0285 0.0193
 Uranus -45264-03-20 03:35 J -14811174.36 -14811174.35 -14811174.30 0.0147 0.0146
 Uranus -45263-03-25 13:40 J -14810804.19 -14810803.93 -14810803.67 0.0147 0.0011
 Jupiter -45263-09-08 06:14 J -14810637.42 -14810637.24 -14810637.05 0.0539 0.0337
 Saturn -45260-09-14 23:16 J -14809534.78 -14809534.53 -14809534.28 0.0274 0.0039
 Pluto -45256-03-06 01:40 J -14808266.67 -14808266.43 -14808266.18 0.0065 0.0025
 Pluto -45255-03-07 12:28 J -14807900.12 -14807899.98 -14807899.79 0.0065 0.0049
 Jupiter -45251-09-13 17:30 J -14806248.97 -14806248.77 -14806248.56 0.0540 0.0207
 Saturn -45245-03-15 03:50 J -14804239.57 -14804239.34 -14804239.10 0.0285 0.0030

Jupiter -45233-03-08 03:06 J -14799863.59 -14799863.37 -14799863.15 0.0489 0.0136
 Saturn -45231-09-09 19:11 J -14798947.88 -14798947.70 -14798947.51 0.0273 0.0175
 Saturn -45230-09-22 11:30 J -14798570.22 -14798570.02 -14798569.81 0.0274 0.0142
 Neptune -45223-02-12 12:14 J -14796234.99 -14796234.99 -14796234.96 0.0089 0.0089
 Neptune -45222-02-14 23:02 J -14795867.72 -14795867.54 -14795867.34 0.0089 0.0061
 Uranus -45222-09-23 07:26 J -14795647.30 -14795647.19 -14795647.04 0.0132 0.0111
 Neptune -45221-02-17 13:40 J -14795500.16 -14795499.93 -14795499.68 0.0089 0.0025
 Jupiter -45221-03-12 16:04 J -14795476.01 -14795475.83 -14795475.65 0.0488 0.0317
 Uranus -45221-09-26 08:38 J -14795278.39 -14795278.14 -14795277.87 0.0132 0.0020
 Neptune -45220-02-18 19:54 J -14795132.93 -14795132.67 -14795132.40 0.0089 0.0003
 Uranus -45220-09-30 16:04 J -14794908.97 -14794908.83 -14794908.64 0.0132 0.0098
 Neptune -45219-02-21 13:40 J -14794765.14 -14794764.93 -14794764.69 0.0089 0.0039
 Neptune -45218-02-23 17:59 J -14794397.89 -14794397.75 -14794397.54 0.0089 0.0065
 Saturn -45216-03-09 05:16 J -14793653.49 -14793653.28 -14793653.05 0.0286 0.0140
 Saturn -45215-03-22 19:26 J -14793274.83 -14793274.69 -14793274.52 0.0284 0.0221
 Mars -45202-08-11 11:45 J -14788385.19 -14788385.01 -14788384.83 0.1598 0.0259
 Saturn -45201-09-15 22:47 J -14787983.81 -14787983.55 -14787983.30 0.0274 0.0011
 Saturn -45186-03-17 08:38 J -14782688.38 -14782688.14 -14782687.90 0.0285 0.0057
 Uranus -45180-03-20 16:04 J -14780492.85 -14780492.83 -14780492.79 0.0147 0.0145
 Jupiter -45180-09-07 09:06 J -14780322.24 -14780322.12 -14780322.00 0.0538 0.0453
 Uranus -45179-03-26 01:26 J -14780122.70 -14780122.44 -14780122.18 0.0147 0.0012
 Uranus -45178-03-30 23:59 J -14779752.54 -14779752.50 -14779752.42 0.0146 0.0143
 Saturn -45172-09-11 03:35 J -14777396.55 -14777396.35 -14777396.15 0.0273 0.0147
 Saturn -45171-09-23 18:28 J -14777018.92 -14777018.73 -14777018.54 0.0275 0.0172
 Pluto -45169-09-07 21:21 J -14776303.76 -14776303.61 -14776303.41 0.0080 0.0058
 Jupiter -45168-09-12 11:30 J -14775934.26 -14775934.02 -14775933.78 0.0539 0.0086
 Saturn -45157-03-10 08:09 J -14772102.38 -14772102.16 -14772101.93 0.0286 0.0111
 Saturn -45156-03-24 02:23 J -14771723.50 -14771723.40 -14771723.29 0.0284 0.0253
 Jupiter -45150-03-08 18:42 J -14769547.94 -14769547.72 -14769547.50 0.0489 0.0186
 Saturn -45142-09-18 01:11 J -14766432.70 -14766432.45 -14766432.21 0.0274 0.0020

Neptune -45140-08-18 21:21 J -14765731.76 -14765731.61 -14765731.44 0.0088 0.0068
 Neptune -45139-08-21 05:45 J -14765364.48 -14765364.26 -14765363.99 0.0088 0.0036
 Jupiter -45138-03-12 15:50 J -14765161.03 -14765160.84 -14765160.63 0.0488 0.0259
 Neptune -45138-08-23 22:33 J -14764996.80 -14764996.56 -14764996.30 0.0088 0.0007
 Uranus -45138-09-23 20:38 J -14764965.75 -14764965.64 -14764965.52 0.0132 0.0115
 Neptune -45137-08-25 03:35 J -14764629.58 -14764629.35 -14764629.08 0.0088 0.0028
 Uranus -45137-09-26 20:38 J -14764596.90 -14764596.64 -14764596.38 0.0132 0.0001
 Neptune -45136-08-27 22:33 J -14764261.75 -14764261.56 -14764261.36 0.0088 0.0056
 Uranus -45136-10-01 04:18 J -14764227.48 -14764227.32 -14764227.13 0.0132 0.0093
 Saturn -45128-03-04 18:57 J -14761515.76 -14761515.71 -14761515.63 0.0286 0.0276
 Saturn -45127-03-18 09:50 J -14761137.33 -14761137.09 -14761136.85 0.0285 0.0087
 Mars -45123-08-13 06:14 J -14759528.34 -14759528.24 -14759528.14 0.1598 0.1297
 Saturn -45113-09-12 11:45 J -14755845.22 -14755845.01 -14755844.78 0.0274 0.0117
 Saturn -45112-09-24 22:04 J -14755467.74 -14755467.58 -14755467.41 0.0275 0.0206
 Saturn -45098-03-12 18:57 J -14750550.94 -14750550.71 -14750550.48 0.0285 0.0075
 Uranus -45096-03-21 04:33 J -14749811.42 -14749811.31 -14749811.20 0.0147 0.0130
 Uranus -45095-03-26 12:42 J -14749441.23 -14749440.97 -14749440.70 0.0147 0.0006
 Jupiter -45085-09-11 16:33 J -14745619.04 -14745618.81 -14745618.59 0.0539 0.0014
 Saturn -45084-09-06 19:11 J -14745258.74 -14745258.70 -14745258.62 0.0273 0.0264
 Saturn -45083-09-19 10:47 J -14744881.28 -14744881.05 -14744880.81 0.0274 0.0055
 Saturn -45069-03-05 23:45 J -14739964.63 -14739964.51 -14739964.36 0.0286 0.0240
 Saturn -45068-03-19 13:11 J -14739586.18 -14739585.95 -14739585.73 0.0285 0.0121
 Jupiter -45067-03-07 17:02 J -14739232.98 -14739232.79 -14739232.58 0.0490 0.0253
 Neptune -45058-02-14 09:06 J -14735967.21 -14735967.12 -14735967.00 0.0089 0.0080
 Neptune -45057-02-16 15:06 J -14735600.10 -14735599.87 -14735599.63 0.0089 0.0040
 Neptune -45056-02-18 09:21 J -14735232.35 -14735232.11 -14735231.85 0.0089 0.0017
 Neptune -45055-02-20 13:54 J -14734865.15 -14734864.92 -14734864.66 0.0089 0.0023
 Jupiter -45055-03-12 06:42 J -14734845.43 -14734845.22 -14734845.02 0.0489 0.0212
 Neptune -45054-02-23 07:54 J -14734497.38 -14734497.17 -14734496.93 0.0089 0.0047
 Saturn -45054-09-14 15:35 J -14734294.09 -14734293.85 -14734293.60 0.0274 0.0082

Uranus -45054-09-24 09:21 J -14734284.27 -14734284.11 -14734283.93 0.0132 0.0095
 Neptune -45053-02-25 14:23 J -14734129.93 -14734129.90 -14734129.82 0.0089 0.0087
 Saturn -45053-09-26 00:57 J -14733916.57 -14733916.46 -14733916.34 0.0275 0.0242
 Uranus -45053-09-27 08:52 J -14733915.39 -14733915.13 -14733914.87 0.0132 0.0004
 Uranus -45052-10-01 17:30 J -14733545.87 -14733545.77 -14733545.62 0.0132 0.0114
 Saturn -45039-03-14 08:38 J -14728999.37 -14728999.14 -14728998.89 0.0285 0.0038
 Saturn -45025-09-08 06:14 J -14723707.36 -14723707.24 -14723707.10 0.0273 0.0228
 Saturn -45024-09-20 23:30 J -14723329.74 -14723329.52 -14723329.29 0.0274 0.0092
 Uranus -45012-03-21 16:33 J -14719129.92 -14719129.81 -14719129.68 0.0147 0.0129
 Uranus -45011-03-27 00:14 J -14718759.74 -14718759.49 -14718759.22 0.0147 0.0028
 Pluto -45010-03-08 03:06 J -14718413.61 -14718413.37 -14718413.11 0.0065 0.0020
 Saturn -45010-03-08 06:28 J -14718413.40 -14718413.23 -14718413.05 0.0286 0.0204 *
 Pluto -45009-03-08 23:02 J -14718046.68 -14718046.54 -14718046.36 0.0065 0.0052
 Saturn -45009-03-20 23:45 J -14718034.70 -14718034.51 -14718034.31 0.0284 0.0161
 Jupiter -45002-09-11 15:21 J -14715304.09 -14715303.86 -14715303.62 0.0538 0.0112

45TH MILLENNIUM BCE

This is a list of transits of Moon in the 45th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Mars -44997-08-09 07:26 J -14713510.37 -14713510.19 -14713510.02 0.1597 0.0789
 Saturn -44995-09-15 19:40 J -14712742.92 -14712742.68 -14712742.43 0.0274 0.0049
 Jupiter -44990-09-16 13:11 J -14710916.05 -14710915.95 -14710915.84 0.0539 0.0481
 Jupiter -44984-03-07 04:33 J -14708917.48 -14708917.31 -14708917.13 0.0490 0.0314

Saturn -44980-03-15 21:21 J -14707447.86 -14707447.61 -14707447.36 0.0285 0.0008
 Neptune -44975-08-20 15:50 J -14705464.03 -14705463.84 -14705463.61 0.0088 0.0050
 Neptune -44974-08-22 21:21 J -14705096.86 -14705096.61 -14705096.36 0.0088 0.0027
 Neptune -44973-08-24 15:50 J -14704729.08 -14704728.84 -14704728.57 0.0088 0.0015
 Jupiter -44972-03-11 07:11 J -14704530.43 -14704530.20 -14704529.96 0.0489 0.0151
 Neptune -44972-08-26 21:21 J -14704361.84 -14704361.61 -14704361.38 0.0088 0.0037
 Neptune -44971-08-29 13:54 J -14703994.03 -14703993.92 -14703993.77 0.0088 0.0077
 Uranus -44970-09-24 22:47 J -14703602.70 -14703602.55 -14703602.37 0.0132 0.0099
 Uranus -44969-09-27 21:35 J -14703233.85 -14703233.60 -14703233.34 0.0132 0.0018
 Uranus -44968-10-02 06:42 J -14702864.34 -14702864.22 -14702864.06 0.0132 0.0109
 Saturn -44966-09-10 19:26 J -14702155.85 -14702155.69 -14702155.52 0.0273 0.0194
 Saturn -44965-09-22 08:09 J -14701778.37 -14701778.16 -14701777.93 0.0274 0.0131
 Saturn -44951-03-09 19:11 J -14696861.89 -14696861.70 -14696861.50 0.0286 0.0164
 Saturn -44950-03-23 15:21 J -14696483.01 -14696482.86 -14696482.68 0.0284 0.0204
 Saturn -44936-09-17 05:16 J -14691191.52 -14691191.28 -14691191.04 0.0275 0.0011
 Uranus -44928-03-22 03:50 J -14688448.47 -14688448.34 -14688448.17 0.0147 0.0117
 Uranus -44927-03-27 10:47 J -14688078.31 -14688078.05 -14688077.78 0.0147 0.0021
 Pluto -44923-09-10 09:35 J -14686450.30 -14686450.10 -14686449.86 0.0080 0.0044
 Saturn -44921-03-17 06:57 J -14685896.46 -14685896.21 -14685895.96 0.0285 0.0048
 Jupiter -44919-09-10 05:45 J -14684989.46 -14684989.26 -14684989.05 0.0538 0.0235
 Mars -44918-08-12 16:47 J -14684652.99 -14684652.80 -14684652.61 0.1597 0.0591
 Saturn -44907-09-12 06:14 J -14680604.44 -14680604.24 -14680604.03 0.0273 0.0157
 Jupiter -44907-09-15 21:06 J -14680600.77 -14680600.62 -14680600.46 0.0540 0.0393
 Saturn -44906-09-24 14:38 J -14680227.08 -14680226.89 -14680226.68 0.0275 0.0170
 Jupiter -44901-03-06 04:33 J -14678602.45 -14678602.31 -14678602.15 0.0490 0.0380
 Neptune -44893-02-16 03:35 J -14675699.50 -14675699.35 -14675699.15 0.0089 0.0065
 Neptune -44892-02-17 08:23 J -14675332.37 -14675332.15 -14675331.90 0.0089 0.0029
 Saturn -44892-03-11 12:42 J -14675310.18 -14675309.97 -14675309.75 0.0286 0.0124
 Neptune -44891-02-20 01:54 J -14674964.68 -14674964.42 -14674964.15 0.0089 0.0001
 Saturn -44891-03-25 07:11 J -14674931.32 -14674931.20 -14674931.07 0.0284 0.0244

Neptune -44890-02-22 09:06 J -14674597.34 -14674597.12 -14674596.89 0.0089 0.0036
 Neptune -44889-02-24 22:04 J -14674229.74 -14674229.58 -14674229.37 0.0089 0.0064
 Jupiter -44889-03-10 11:59 J -14674215.22 -14674215.00 -14674214.78 0.0489 0.0086
 Uranus -44886-09-25 12:28 J -14672921.17 -14672920.98 -14672920.77 0.0132 0.0078
 Uranus -44885-09-28 10:33 J -14672552.31 -14672552.06 -14672551.80 0.0132 0.0014
 Uranus -44884-10-02 20:52 J -14672182.64 -14672182.63 -14672182.59 0.0132 0.0131
 Saturn -44877-09-18 17:59 J -14669639.98 -14669639.75 -14669639.51 0.0275 0.0026
 Saturn -44863-03-06 03:50 J -14664723.38 -14664723.34 -14664723.27 0.0286 0.0278
 Saturn -44862-03-19 18:14 J -14664344.97 -14664344.74 -14664344.50 0.0285 0.0089
 Saturn -44848-09-13 12:28 J -14659053.20 -14659052.98 -14659052.74 0.0273 0.0122
 Saturn -44847-09-25 22:47 J -14658675.69 -14658675.55 -14658675.37 0.0275 0.0208
 Uranus -44844-03-22 16:33 J -14657766.95 -14657766.81 -14657766.64 0.0147 0.0113
 Uranus -44843-03-27 22:33 J -14657396.80 -14657396.56 -14657396.30 0.0147 0.0043
 Jupiter -44836-09-09 15:06 J -14654674.05 -14654673.87 -14654673.69 0.0538 0.0327
 Saturn -44833-03-13 04:33 J -14653758.55 -14653758.31 -14653758.08 0.0285 0.0083
 Jupiter -44824-09-14 11:16 J -14650286.23 -14650286.03 -14650285.82 0.0539 0.0278
 Saturn -44819-09-08 13:26 J -14648465.98 -14648465.94 -14648465.87 0.0274 0.0265
 Jupiter -44818-03-06 08:38 J -14648287.22 -14648287.14 -14648287.05 0.0491 0.0449
 Saturn -44818-09-21 05:45 J -14648088.49 -14648088.26 -14648088.01 0.0275 0.0061
 Mars -44815-02-07 05:59 J -14647218.44 -14647218.25 -14647218.06 0.1934 0.0458
 Neptune -44811-08-19 14:09 J -14645564.05 -14645563.91 -14645563.75 0.0088 0.0072
 Neptune -44810-08-22 09:06 J -14645196.34 -14645196.12 -14645195.88 0.0088 0.0039
 Neptune -44809-08-23 14:52 J -14644829.13 -14644828.88 -14644828.62 0.0088 0.0008
 Neptune -44808-08-26 06:42 J -14644461.47 -14644461.22 -14644460.96 0.0088 0.0024
 Neptune -44807-08-28 15:35 J -14644094.03 -14644093.85 -14644093.64 0.0088 0.0055
 Jupiter -44806-03-10 18:14 J -14643899.98 -14643899.74 -14643899.50 0.0490 0.0022
 Neptune -44806-08-31 02:38 J -14643726.42 -14643726.39 -14643726.31 0.0088 0.0087
 Saturn -44804-03-07 14:38 J -14643172.00 -14643171.89 -14643171.74 0.0286 0.0240
 Saturn -44803-03-21 09:35 J -14642793.31 -14642793.10 -14642792.88 0.0285 0.0131
 Uranus -44802-09-26 02:38 J -14642239.58 -14642239.39 -14642239.18 0.0132 0.0080

Uranus -44801-09-29 00:14 J -14641870.73 -14641870.49 -14641870.23 0.0132 0.0037
 Uranus -44800-10-03 10:47 J -14641501.10 -14641501.05 -14641500.98 0.0132 0.0127
 Jupiter -44794-03-14 20:23 J -14639512.73 -14639512.65 -14639512.56 0.0488 0.0449
 Mars -44792-08-08 21:50 J -14638634.69 -14638634.59 -14638634.48 0.1597 0.1289
 Saturn -44789-09-14 19:26 J -14637501.92 -14637501.69 -14637501.45 0.0273 0.0086
 Saturn -44788-09-27 10:47 J -14637124.14 -14637124.05 -14637123.94 0.0275 0.0247
 Saturn -44774-03-15 13:11 J -14632207.20 -14632206.95 -14632206.70 0.0285 0.0042
 Pluto -44764-03-09 15:35 J -14628560.10 -14628559.85 -14628559.60 0.0065 0.0009
 Pluto -44763-03-11 04:47 J -14628193.35 -14628193.30 -14628193.20 0.0066 0.0063
 Uranus -44760-03-23 05:02 J -14627085.46 -14627085.29 -14627085.10 0.0147 0.0100
 Saturn -44760-09-09 23:59 J -14626914.61 -14626914.50 -14626914.35 0.0274 0.0231
 Uranus -44759-03-28 09:50 J -14626715.34 -14626715.09 -14626714.83 0.0147 0.0039
 Saturn -44759-09-22 11:16 J -14626537.26 -14626537.03 -14626536.79 0.0275 0.0097
 Jupiter -44753-09-08 03:35 J -14624359.48 -14624359.35 -14624359.22 0.0537 0.0443
 Saturn -44745-03-09 04:18 J -14621620.48 -14621620.32 -14621620.14 0.0286 0.0199
 Saturn -44744-03-23 00:42 J -14621241.65 -14621241.47 -14621241.27 0.0284 0.0171
 Jupiter -44741-09-13 11:59 J -14619971.22 -14619971.00 -14619970.79 0.0539 0.0158
 Saturn -44730-09-17 06:57 J -14615950.44 -14615950.21 -14615949.97 0.0273 0.0048
 Neptune -44729-02-15 03:06 J -14615799.44 -14615799.37 -14615799.29 0.0089 0.0084
 Neptune -44728-02-16 19:26 J -14615431.90 -14615431.69 -14615431.44 0.0089 0.0044
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 Neptune -44724-02-25 12:28 J -14613962.05 -14613961.98 -14613961.89 0.0089 0.0084
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 Uranus -44718-09-26 17:02 J -14611558.01 -14611557.79 -14611557.56 0.0132 0.0058
 Uranus -44717-09-29 14:23 J -14611189.14 -14611188.90 -14611188.65 0.0132 0.0033
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 Mars -44713-08-10 17:16 J -14609777.96 -14609777.78 -14609777.61 0.1597 0.0416
 Jupiter -44711-03-14 08:38 J -14609197.28 -14609197.14 -14609196.99 0.0489 0.0379

Saturn -44701-09-11 04:33 J -14605363.48 -14605363.31 -14605363.13 0.0274 0.0195
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 Saturn -44553-09-20 23:16 J -14551296.78 -14551296.53 -14551296.28 0.0273 0.0057
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 Saturn -44406-09-18 18:14 J -14497607.99 -14497607.74 -14497607.49 0.0273 0.0035
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 Jupiter -44077-09-08 00:28 J -14377450.50 -14377450.48 -14377450.44 0.0535 0.0529
 Neptune -44070-02-18 08:52 J -14375096.30 -14375096.13 -14375095.90 0.0089 0.0054
 Neptune -44069-02-21 02:09 J -14374728.65 -14374728.41 -14374728.16 0.0089 0.0029
 Neptune -44068-02-22 09:35 J -14374361.34 -14374361.10 -14374360.84 0.0089 0.0013
 Neptune -44067-02-24 22:18 J -14373993.81 -14373993.57 -14373993.32 0.0089 0.0036
 Saturn -44067-03-19 02:09 J -14373971.66 -14373971.41 -14373971.17 0.0285 0.0006
 Neptune -44066-02-27 10:33 J -14373626.15 -14373626.06 -14373625.92 0.0089 0.0078
 Mars -44066-08-16 17:16 J -14373455.81 -14373455.78 -14373455.74 0.1598 0.1572
 Jupiter -44065-09-13 04:33 J -14373062.53 -14373062.31 -14373062.08 0.0537 0.0034
 Saturn -44053-09-14 13:54 J -14368678.11 -14368677.92 -14368677.70 0.0273 0.0162
 Saturn -44052-09-26 23:02 J -14368300.71 -14368300.54 -14368300.34 0.0274 0.0185
 Jupiter -44047-03-10 22:18 J -14366674.81 -14366674.57 -14366674.34 0.0491 0.0099
 Uranus -44047-09-27 02:38 J -14366474.55 -14366474.39 -14366474.19 0.0132 0.0090
 Uranus -44046-10-01 12:28 J -14366105.23 -14366104.98 -14366104.71 0.0132 0.0022
 Uranus -44045-10-04 10:33 J -14365736.17 -14365736.06 -14365735.92 0.0132 0.0114
 Saturn -44038-03-13 12:28 J -14363385.17 -14363384.98 -14363384.78 0.0286 0.0174
 Saturn -44037-03-26 02:38 J -14363006.55 -14363006.39 -14363006.22 0.0285 0.0216
 Jupiter -44035-03-15 10:04 J -14362287.23 -14362287.08 -14362286.92 0.0490 0.0351
 Pluto -44027-03-14 10:18 J -14359366.14 -14359366.07 -14359365.93 0.0065 0.0060
 Pluto -44026-03-15 17:16 J -14359000.00 -14358999.78 -14358999.52 0.0066 0.0024
 Saturn -44023-09-22 08:09 J -14357713.40 -14357713.16 -14357712.91 0.0274 0.0035
 Saturn -44008-03-20 17:45 J -14352419.99 -14352419.76 -14352419.52 0.0285 0.0052
 Uranus -44004-03-28 04:33 J -14350951.56 -14350951.31 -14350951.06 0.0147 0.0018
 Uranus -44003-04-02 02:23 J -14350581.49 -14350581.40 -14350581.27 0.0147 0.0133

44TH MILLENNIUM BCE

This is a list of transits of Moon in the 44th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-43994-09-16 20:09 J		-14347126.88	-14347126.66	-14347126.43	0.0273	0.0120	
Saturn	-43993-09-28 10:04 J		-14346749.20	-14346749.08	-14346748.93	0.0274	0.0227	
Neptune	-43988-08-22 02:09 J		-14344960.58	-14344960.41	-14344960.24	0.0088	0.0067	
Neptune	-43987-08-24 08:09 J		-14344593.36	-14344593.16	-14344592.92	0.0088	0.0042	
Neptune	-43986-08-26 23:45 J		-14344225.78	-14344225.51	-14344225.24	0.0088	0.0002	
Neptune	-43985-08-28 09:35 J		-14343858.33	-14343858.10	-14343857.85	0.0088	0.0023	
Neptune	-43984-08-30 19:54 J		-14343490.85	-14343490.67	-14343490.47	0.0088	0.0063	
Neptune	-43983-09-02 11:16 J		-14343123.03	-14343123.03	-14343123.01	0.0088	0.0088	
Jupiter	-43982-09-13 10:18 J		-14342747.31	-14342747.07	-14342746.83	0.0537	0.0062	
Saturn	-43979-03-14 23:02 J		-14341833.76	-14341833.54	-14341833.31	0.0286	0.0129	
Saturn	-43978-03-28 11:16 J		-14341455.12	-14341455.03	-14341454.94	0.0285	0.0264	
Jupiter	-43970-09-18 07:11 J		-14338359.30	-14338359.20	-14338359.10	0.0538	0.0483	
Jupiter	-43964-03-10 05:59 J		-14336359.45	-14336359.25	-14336359.03	0.0492	0.0176	
Saturn	-43964-09-23 15:35 J		-14336162.09	-14336161.85	-14336161.60	0.0275	0.0074	
Uranus	-43963-09-27 16:47 J		-14335792.99	-14335792.80	-14335792.58	0.0132	0.0076	
Uranus	-43962-10-02 02:23 J		-14335423.66	-14335423.40	-14335423.14	0.0132	0.0021	
Jupiter	-43952-03-14 10:47 J		-14331972.25	-14331972.05	-14331971.85	0.0491	0.0281	
Saturn	-43949-03-22 11:16 J		-14330868.25	-14330868.03	-14330867.80	0.0285	0.0099	
Mars	-43940-08-12 12:28 J		-14327438.15	-14327437.98	-14327437.81	0.1600	0.0428	
Pluto	-43939-09-18 15:06 J		-14327036.01	-14327035.87	-14327035.67	0.0079	0.0060	
Saturn	-43935-09-18 07:40 J		-14325575.40	-14325575.18	-14325574.95	0.0273	0.0081	
Saturn	-43934-10-01 00:57 J		-14325197.49	-14325197.46	-14325197.40	0.0274	0.0270	

Saturn -43920-03-16 08:23 J -14320282.39 -14320282.15 -14320281.91 0.0285 0.0083
 Uranus -43920-03-28 16:33 J -14320270.06 -14320269.81 -14320269.56 0.0147 0.0011
 Uranus -43919-04-02 14:09 J -14319900.02 -14319899.91 -14319899.80 0.0147 0.0132
 Neptune -43906-02-17 18:42 J -14315195.84 -14315195.72 -14315195.57 0.0089 0.0075
 Saturn -43906-09-13 11:16 J -14314988.14 -14314988.03 -14314987.90 0.0274 0.0238
 Neptune -43905-02-20 03:50 J -14314828.54 -14314828.34 -14314828.12 0.0089 0.0045
 Saturn -43905-09-24 19:54 J -14314610.89 -14314610.67 -14314610.44 0.0275 0.0115
 Neptune -43904-02-21 16:04 J -14314461.09 -14314460.83 -14314460.57 0.0089 0.0010
 Neptune -43903-02-24 05:30 J -14314093.51 -14314093.27 -14314093.02 0.0089 0.0021
 Neptune -43902-02-26 11:59 J -14313726.17 -14313726.00 -14313725.77 0.0089 0.0057
 Neptune -43901-02-29 05:45 J -14313358.28 -14313358.26 -14313358.23 0.0089 0.0088
 Jupiter -43899-09-11 23:59 J -14312432.72 -14312432.50 -14312432.29 0.0536 0.0190
 Saturn -43891-03-11 08:09 J -14309695.26 -14309695.16 -14309695.03 0.0286 0.0252
 Saturn -43890-03-25 01:11 J -14309316.66 -14309316.45 -14309316.23 0.0285 0.0142
 Jupiter -43887-09-17 08:38 J -14308044.31 -14308044.14 -14308043.97 0.0538 0.0358
 Mars -43884-02-07 09:21 J -14307170.24 -14307170.11 -14307169.97 0.1930 0.1492
 Jupiter -43881-03-09 09:35 J -14306044.30 -14306044.10 -14306043.88 0.0492 0.0239
 Uranus -43879-09-28 07:11 J -14305111.41 -14305111.20 -14305110.99 0.0132 0.0071
 Uranus -43878-10-02 15:21 J -14304742.10 -14304741.86 -14304741.60 0.0132 0.0039
 Saturn -43876-09-19 21:21 J -14304023.85 -14304023.61 -14304023.38 0.0273 0.0041
 Jupiter -43869-03-13 15:06 J -14301657.07 -14301656.87 -14301656.67 0.0491 0.0222
 Saturn -43861-03-17 20:23 J -14298730.89 -14298730.65 -14298730.41 0.0285 0.0040
 Mars -43861-08-14 10:04 J -14298581.26 -14298581.08 -14298580.91 0.1599 0.0595
 Saturn -43847-09-14 15:35 J -14293437.02 -14293436.85 -14293436.67 0.0274 0.0197
 Saturn -43846-09-27 02:52 J -14293059.57 -14293059.38 -14293059.17 0.0275 0.0154
 Uranus -43836-03-29 04:33 J -14289588.56 -14289588.31 -14289588.05 0.0147 0.0003
 Saturn -43832-03-12 20:23 J -14288143.82 -14288143.65 -14288143.48 0.0286 0.0207
 Saturn -43831-03-26 09:06 J -14287765.30 -14287765.12 -14287764.92 0.0285 0.0188
 Neptune -43824-08-21 01:40 J -14285060.47 -14285060.43 -14285060.38 0.0088 0.0087
 Neptune -43823-08-23 15:50 J -14284693.03 -14284692.84 -14284692.63 0.0088 0.0060

Neptune -43822-08-26 03:50 J -14284325.58 -14284325.34 -14284325.09 0.0088 0.0021
 Neptune -43821-08-27 13:26 J -14283958.20 -14283957.94 -14283957.67 0.0088 0.0006
 Neptune -43820-08-30 05:16 J -14283590.49 -14283590.28 -14283590.05 0.0088 0.0045
 Neptune -43819-09-01 10:33 J -14283223.19 -14283223.06 -14283222.88 0.0088 0.0072
 Saturn -43817-09-21 08:38 J -14282472.39 -14282472.14 -14282471.89 0.0273 0.0002
 Jupiter -43816-09-11 04:04 J -14282117.51 -14282117.33 -14282117.14 0.0536 0.0311
 Jupiter -43804-09-16 04:47 J -14277729.51 -14277729.30 -14277729.09 0.0538 0.0266
 Saturn -43802-03-20 11:02 J -14277179.28 -14277179.04 -14277178.80 0.0285 0.0006
 Jupiter -43798-03-09 13:26 J -14275729.11 -14275728.94 -14275728.76 0.0492 0.0310
 Uranus -43795-09-28 20:23 J -14274429.86 -14274429.65 -14274429.42 0.0132 0.0059
 Uranus -43794-10-03 04:18 J -14274060.56 -14274060.32 -14274060.06 0.0132 0.0039
 Saturn -43788-09-15 20:23 J -14271885.85 -14271885.65 -14271885.45 0.0274 0.0158
 Saturn -43787-09-28 12:28 J -14271508.14 -14271507.98 -14271507.80 0.0275 0.0192
 Jupiter -43786-03-13 23:16 J -14271341.75 -14271341.53 -14271341.30 0.0491 0.0159
 Pluto -43781-03-15 18:14 J -14269512.91 -14269512.74 -14269512.57 0.0065 0.0050
 Pluto -43780-03-17 06:28 J -14269146.42 -14269146.23 -14269145.99 0.0066 0.0033
 Saturn -43773-03-14 00:57 J -14266592.67 -14266592.46 -14266592.25 0.0286 0.0162
 Saturn -43772-03-27 14:52 J -14266214.02 -14266213.88 -14266213.73 0.0285 0.0231
 Saturn -43758-09-23 13:54 J -14260921.17 -14260920.92 -14260920.67 0.0273 0.0040
 Uranus -43753-03-24 03:35 J -14259277.42 -14259277.35 -14259277.24 0.0147 0.0136
 Uranus -43752-03-29 15:21 J -14258907.11 -14258906.86 -14258906.60 0.0147 0.0004
 Saturn -43743-03-21 22:33 J -14255627.80 -14255627.56 -14255627.32 0.0285 0.0048
 Neptune -43741-02-19 08:38 J -14254928.32 -14254928.14 -14254927.92 0.0089 0.0059
 Neptune -43740-02-20 23:16 J -14254560.74 -14254560.53 -14254560.28 0.0089 0.0034
 Neptune -43739-02-23 06:28 J -14254193.49 -14254193.23 -14254192.97 0.0089 0.0008
 Neptune -43738-02-26 00:14 J -14253825.72 -14253825.49 -14253825.25 0.0089 0.0033
 Neptune -43737-02-28 04:33 J -14253458.42 -14253458.31 -14253458.15 0.0089 0.0075
 Mars -43735-08-11 21:21 J -14252562.69 -14252562.61 -14252562.52 0.1601 0.1446
 Jupiter -43733-09-10 00:42 J -14251802.62 -14251802.47 -14251802.31 0.0535 0.0398
 Saturn -43729-09-17 05:45 J -14250334.47 -14250334.26 -14250334.04 0.0274 0.0119

Saturn -43728-09-29 22:04 J -14249956.70 -14249956.58 -14249956.44 0.0274 0.0230
 Jupiter -43721-09-15 10:04 J -14247414.29 -14247414.08 -14247413.86 0.0537 0.0171
 Jupiter -43715-03-08 23:30 J -14245413.67 -14245413.52 -14245413.36 0.0493 0.0373
 Saturn -43714-03-16 04:04 J -14245041.55 -14245041.33 -14245041.10 0.0286 0.0121
 Saturn -43713-03-28 22:33 J -14244662.61 -14244662.56 -14244662.48 0.0285 0.0273
 Uranus -43711-09-29 09:50 J -14243748.31 -14243748.09 -14243747.86 0.0132 0.0054
 Uranus -43710-10-03 16:18 J -14243379.04 -14243378.82 -14243378.57 0.0132 0.0056
 Jupiter -43703-03-13 01:54 J -14241026.65 -14241026.42 -14241026.20 0.0491 0.0109
 Saturn -43700-09-12 07:54 J -14239747.22 -14239747.17 -14239747.13 0.0273 0.0267
 Saturn -43699-09-24 15:35 J -14239370.08 -14239369.85 -14239369.60 0.0273 0.0081
 Pluto -43694-09-18 23:30 J -14237549.67 -14237549.52 -14237549.32 0.0079 0.0057
 Saturn -43684-03-23 01:40 J -14234076.67 -14234076.43 -14234076.19 0.0285 0.0089
 Saturn -43670-09-19 14:23 J -14228783.13 -14228782.90 -14228782.67 0.0273 0.0080
 Uranus -43669-03-24 15:21 J -14228595.91 -14228595.86 -14228595.76 0.0147 0.0140
 Saturn -43669-10-01 01:54 J -14228405.48 -14228405.42 -14228405.36 0.0274 0.0266
 Uranus -43668-03-30 02:52 J -14228225.64 -14228225.38 -14228225.12 0.0147 0.0014
 Neptune -43659-08-22 23:02 J -14224792.68 -14224792.54 -14224792.39 0.0088 0.0072
 Neptune -43658-08-25 06:57 J -14224425.42 -14224425.21 -14224424.96 0.0088 0.0044
 Neptune -43657-08-26 23:59 J -14224057.75 -14224057.50 -14224057.24 0.0088 0.0005
 Mars -43656-08-14 04:04 J -14223705.52 -14223705.33 -14223705.15 0.1601 0.0048
 Neptune -43656-08-29 05:16 J -14223690.53 -14223690.28 -14223690.02 0.0088 0.0021
 Saturn -43655-03-17 10:18 J -14223490.29 -14223490.07 -14223489.84 0.0286 0.0085
 Neptune -43655-08-31 23:30 J -14223322.69 -14223322.52 -14223322.31 0.0088 0.0061
 Neptune -43654-09-03 04:04 J -14222955.35 -14222955.33 -14222955.24 0.0088 0.0087
 Jupiter -43650-09-10 02:38 J -14221487.43 -14221487.39 -14221487.34 0.0535 0.0523
 Saturn -43641-09-13 08:52 J -14218196.25 -14218196.13 -14218195.99 0.0273 0.0231
 Saturn -43640-09-25 21:35 J -14217818.80 -14217818.60 -14217818.37 0.0273 0.0119
 Jupiter -43638-09-15 05:02 J -14217099.53 -14217099.29 -14217099.05 0.0537 0.0058
 Jupiter -43632-03-08 02:38 J -14215098.49 -14215098.39 -14215098.26 0.0493 0.0424
 Uranus -43627-09-29 22:33 J -14213066.78 -14213066.56 -14213066.32 0.0132 0.0043

Saturn -43626-03-11 11:30 J -14212904.10 -14212904.02 -14212903.94 0.0286 0.0271
 Uranus -43626-10-04 04:47 J -14212697.52 -14212697.30 -14212697.04 0.0132 0.0056
 Saturn -43625-03-23 23:59 J -14212525.71 -14212525.50 -14212525.27 0.0285 0.0129
 Jupiter -43620-03-12 18:28 J -14210710.96 -14210710.73 -14210710.50 0.0492 0.0061
 Saturn -43611-09-20 16:47 J -14207232.05 -14207231.80 -14207231.55 0.0273 0.0045
 Saturn -43596-03-18 15:21 J -14201939.09 -14201938.86 -14201938.62 0.0286 0.0049
 Uranus -43585-03-25 03:21 J -14197914.49 -14197914.36 -14197914.21 0.0147 0.0120
 Uranus -43584-03-30 13:54 J -14197544.17 -14197543.92 -14197543.65 0.0147 0.0019
 Saturn -43582-09-15 12:57 J -14196645.11 -14196644.96 -14196644.78 0.0273 0.0199
 Saturn -43581-09-27 05:45 J -14196267.46 -14196267.26 -14196267.06 0.0273 0.0154
 Neptune -43577-02-18 18:28 J -14195027.82 -14195027.73 -14195027.59 0.0089 0.0079
 Mars -43577-08-16 00:57 J -14194848.60 -14194848.46 -14194848.32 0.1600 0.0994
 Neptune -43576-02-20 00:28 J -14194660.67 -14194660.48 -14194660.24 0.0089 0.0050
 Neptune -43575-02-22 18:57 J -14194292.96 -14194292.71 -14194292.45 0.0089 0.0013
 Neptune -43574-02-24 23:30 J -14193925.76 -14193925.52 -14193925.26 0.0089 0.0017
 Neptune -43573-02-27 17:16 J -14193557.97 -14193557.78 -14193557.55 0.0089 0.0054
 Neptune -43572-02-28 23:30 J -14193190.56 -14193190.52 -14193190.42 0.0089 0.0085
 Saturn -43567-03-12 09:06 J -14191353.25 -14191353.12 -14191352.97 0.0286 0.0236
 Saturn -43566-03-26 02:23 J -14190974.60 -14190974.40 -14190974.20 0.0285 0.0162
 Jupiter -43555-09-14 13:11 J -14186784.17 -14186783.95 -14186783.73 0.0536 0.0005
 Saturn -43552-09-21 14:52 J -14185681.13 -14185680.88 -14185680.62 0.0273 0.0011
 Jupiter -43549-03-07 18:28 J -14184782.78 -14184782.73 -14184782.67 0.0494 0.0477
 Uranus -43543-09-30 11:16 J -14182385.26 -14182385.03 -14182384.78 0.0132 0.0038
 Uranus -43542-10-04 16:18 J -14182016.03 -14182015.82 -14182015.59 0.0132 0.0070
 Jupiter -43537-03-11 20:23 J -14180395.89 -14180395.65 -14180395.41 0.0492 0.0008
 Saturn -43537-03-19 14:38 J -14180388.14 -14180387.89 -14180387.64 0.0286 0.0018
 Pluto -43535-03-17 18:14 J -14179659.89 -14179659.74 -14179659.54 0.0065 0.0049
 Pluto -43534-03-19 14:52 J -14179293.09 -14179292.88 -14179292.63 0.0066 0.0033
 Jupiter -43525-03-16 09:35 J -14176008.17 -14176008.10 -14176008.02 0.0491 0.0459
 Saturn -43523-09-16 20:09 J -14175093.85 -14175093.66 -14175093.47 0.0273 0.0163

Saturn -43522-09-29 09:21 J -14174716.27 -14174716.11 -14174715.91 0.0274 0.0188
 Mars -43521-02-10 21:21 J -14174581.80 -14174581.61 -14174581.41 0.1929 0.0339
 Saturn -43508-03-13 10:18 J -14169802.23 -14169802.07 -14169801.90 0.0286 0.0204
 Saturn -43507-03-27 06:57 J -14169423.38 -14169423.21 -14169423.04 0.0285 0.0195
 Uranus -43501-03-25 15:06 J -14167232.98 -14167232.87 -14167232.72 0.0147 0.0125
 Uranus -43500-03-31 01:11 J -14166862.71 -14166862.45 -14166862.20 0.0147 0.0030
 Neptune -43495-08-22 02:23 J -14164892.40 -14164892.40 -14164892.38 0.0088 0.0088
 Neptune -43494-08-24 19:40 J -14164524.83 -14164524.68 -14164524.47 0.0088 0.0064
 Neptune -43493-08-26 01:11 J -14164157.69 -14164157.45 -14164157.19 0.0088 0.0023
 Saturn -43493-09-22 15:21 J -14164130.10 -14164129.86 -14164129.62 0.0273 0.0022
 Neptune -43492-08-28 20:09 J -14163789.92 -14163789.66 -14163789.40 0.0088 0.0004
 Neptune -43491-08-31 00:57 J -14163422.66 -14163422.46 -14163422.22 0.0088 0.0045
 Neptune -43490-09-02 17:45 J -14163054.91 -14163054.76 -14163054.59 0.0088 0.0071
 Saturn -43478-03-21 09:21 J -14158837.37 -14158837.11 -14158836.86 0.0285 0.0016
 Jupiter -43472-09-13 15:21 J -14156469.10 -14156468.86 -14156468.63 0.0535 0.0099
 Saturn -43464-09-18 00:28 J -14153542.69 -14153542.48 -14153542.26 0.0273 0.0129
 Saturn -43463-09-30 08:23 J -14153165.29 -14153165.15 -14153164.99 0.0274 0.0219
 Uranus -43460-09-26 17:59 J -14152072.76 -14152072.75 -14152072.72 0.0132 0.0131
 Uranus -43459-09-30 23:30 J -14151703.75 -14151703.52 -14151703.28 0.0132 0.0029
 Uranus -43458-10-05 03:35 J -14151334.55 -14151334.35 -14151334.11 0.0132 0.0071
 Jupiter -43454-03-12 11:59 J -14150080.23 -14150080.00 -14150079.78 0.0492 0.0029
 Mars -43451-08-12 20:09 J -14148830.79 -14148830.66 -14148830.54 0.1603 0.1212
 Saturn -43449-03-14 15:06 J -14148251.05 -14148250.87 -14148250.67 0.0286 0.0169
 Saturn -43448-03-28 09:06 J -14147872.26 -14147872.12 -14147871.96 0.0285 0.0227
 Pluto -43448-09-20 08:09 J -14147696.33 -14147696.16 -14147695.95 0.0079 0.0054
 Jupiter -43442-03-16 20:09 J -14145692.80 -14145692.66 -14145692.53 0.0491 0.0403
 Saturn -43434-09-24 20:52 J -14142578.86 -14142578.63 -14142578.40 0.0273 0.0057
 Saturn -43419-03-22 06:28 J -14137286.47 -14137286.23 -14137285.99 0.0285 0.0049
 Uranus -43417-03-26 03:06 J -14136551.53 -14136551.37 -14136551.19 0.0146 0.0105
 Uranus -43416-03-31 11:59 J -14136181.25 -14136181.00 -14136180.74 0.0147 0.0033

Neptune -43412-02-19 14:23 J -14134760.06 -14134759.90 -14134759.69 0.0089 0.0063
 Neptune -43411-02-21 18:57 J -14134392.92 -14134392.71 -14134392.46 0.0089 0.0037
 Neptune -43410-02-24 12:57 J -14134025.22 -14134024.96 -14134024.70 0.0089 0.0005
 Neptune -43409-02-26 20:23 J -14133657.88 -14133657.65 -14133657.42 0.0089 0.0031
 Neptune -43408-02-28 09:50 J -14133290.22 -14133290.09 -14133289.92 0.0089 0.0073
 Saturn -43405-09-18 22:47 J -14131991.78 -14131991.55 -14131991.30 0.0273 0.0095
 Saturn -43404-10-01 07:26 J -14131614.28 -14131614.19 -14131614.09 0.0274 0.0253
 Saturn -43390-03-16 18:42 J -14126699.94 -14126699.72 -14126699.50 0.0286 0.0133
 Saturn -43389-03-29 07:54 J -14126321.27 -14126321.17 -14126321.06 0.0285 0.0260
 Jupiter -43389-09-12 14:23 J -14126154.12 -14126153.90 -14126153.68 0.0535 0.0174
 Jupiter -43377-09-18 05:59 J -14121765.34 -14121765.25 -14121765.15 0.0537 0.0485
 Saturn -43376-09-13 11:16 J -14121405.10 -14121405.03 -14121404.95 0.0273 0.0258
 Uranus -43376-09-27 04:47 J -14121391.32 -14121391.30 -14121391.24 0.0132 0.0130
 Saturn -43375-09-26 03:06 J -14121027.59 -14121027.37 -14121027.14 0.0273 0.0092
 Uranus -43375-10-01 11:16 J -14121022.26 -14121022.03 -14121021.78 0.0132 0.0024
 Uranus -43374-10-05 13:54 J -14120653.11 -14120652.92 -14120652.70 0.0132 0.0083
 Mars -43372-08-15 03:50 J -14119973.55 -14119973.34 -14119973.14 0.1602 0.0195
 Jupiter -43371-03-11 20:52 J -14119764.87 -14119764.63 -14119764.39 0.0493 0.0080
 Saturn -43360-03-23 10:47 J -14115735.27 -14115735.05 -14115734.82 0.0285 0.0082
 Jupiter -43359-03-16 00:57 J -14115377.61 -14115377.46 -14115377.29 0.0491 0.0347
 Saturn -43346-09-20 22:04 J -14110440.82 -14110440.58 -14110440.33 0.0274 0.0059
 Uranus -43333-03-26 14:09 J -14105870.05 -14105869.91 -14105869.74 0.0146 0.0111
 Uranus -43332-03-31 21:50 J -14105499.83 -14105499.59 -14105499.33 0.0147 0.0044
 Saturn -43331-03-17 17:30 J -14105149.00 -14105148.77 -14105148.52 0.0285 0.0098
 Neptune -43330-08-23 20:52 J -14104624.74 -14104624.63 -14104624.47 0.0088 0.0074
 Neptune -43329-08-25 15:50 J -14104257.05 -14104256.84 -14104256.60 0.0088 0.0046
 Neptune -43328-08-27 21:50 J -14103889.84 -14103889.59 -14103889.34 0.0088 0.0006
 Neptune -43327-08-30 13:40 J -14103522.18 -14103521.93 -14103521.66 0.0088 0.0022
 Neptune -43326-09-01 22:47 J -14103154.70 -14103154.55 -14103154.34 0.0088 0.0061
 Neptune -43325-09-03 11:02 J -14102787.08 -14102787.04 -14102786.99 0.0088 0.0087

Saturn -43317-09-14 18:14 J -14099853.88 -14099853.74 -14099853.60 0.0273 0.0222
 Saturn -43316-09-27 05:16 J -14099476.51 -14099476.28 -14099476.06 0.0274 0.0126
 Jupiter -43306-09-13 04:33 J -14095838.52 -14095838.31 -14095838.11 0.0535 0.0238
 Saturn -43302-03-11 22:18 J -14094562.60 -14094562.57 -14094562.52 0.0286 0.0281
 Saturn -43301-03-24 17:30 J -14094183.98 -14094183.77 -14094183.54 0.0285 0.0118
 Jupiter -43294-09-17 21:06 J -14091450.78 -14091450.62 -14091450.44 0.0536 0.0370
 Mars -43293-08-17 13:26 J -14091116.04 -14091115.94 -14091115.85 0.1602 0.1408
 Uranus -43292-09-27 15:21 J -14090709.97 -14090709.86 -14090709.74 0.0132 0.0118
 Uranus -43291-10-01 22:47 J -14090340.79 -14090340.55 -14090340.31 0.0132 0.0018
 Uranus -43290-10-06 00:57 J -14089971.65 -14089971.46 -14089971.25 0.0132 0.0083
 Pluto -43289-03-19 01:54 J -14089806.55 -14089806.42 -14089806.22 0.0065 0.0050
 Jupiter -43288-03-11 01:40 J -14089449.64 -14089449.43 -14089449.20 0.0494 0.0133
 Pluto -43288-03-20 15:06 J -14089440.10 -14089439.87 -14089439.63 0.0066 0.0031
 Saturn -43287-09-22 04:04 J -14088889.57 -14088889.33 -14088889.09 0.0274 0.0025
 Jupiter -43276-03-15 15:50 J -14085062.02 -14085061.84 -14085061.64 0.0492 0.0292
 Saturn -43272-03-18 20:23 J -14083597.88 -14083597.65 -14083597.40 0.0285 0.0060
 Saturn -43258-09-16 21:35 J -14078302.77 -14078302.60 -14078302.40 0.0273 0.0190
 Saturn -43257-09-28 05:59 J -14077925.45 -14077925.25 -14077925.05 0.0274 0.0161
 Uranus -43249-03-27 00:42 J -14075188.65 -14075188.47 -14075188.27 0.0146 0.0092
 Neptune -43248-02-18 16:04 J -14074859.91 -14074859.83 -14074859.70 0.0089 0.0081
 Uranus -43248-04-01 07:40 J -14074818.43 -14074818.18 -14074817.93 0.0147 0.0043
 Neptune -43247-02-21 09:35 J -14074492.31 -14074492.10 -14074491.88 0.0089 0.0052
 Neptune -43246-02-23 17:16 J -14074125.02 -14074124.78 -14074124.53 0.0089 0.0013
 Neptune -43245-02-26 05:59 J -14073757.51 -14073757.25 -14073756.99 0.0089 0.0015
 Neptune -43244-02-27 17:45 J -14073389.93 -14073389.76 -14073389.54 0.0089 0.0054
 Neptune -43243-03-02 01:54 J -14073022.49 -14073022.42 -14073022.30 0.0089 0.0083
 Saturn -43243-03-13 06:14 J -14073011.36 -14073011.24 -14073011.11 0.0286 0.0244
 Saturn -43242-03-26 20:52 J -14072632.84 -14072632.63 -14072632.42 0.0285 0.0152
 Mars -43237-02-10 11:02 J -14070851.14 -14070851.04 -14070850.94 0.1926 0.1623
 Saturn -43228-09-23 13:26 J -14067338.17 -14067337.94 -14067337.70 0.0274 0.0011

Jupiter -43223-09-11 17:16 J -14065523.95 -14065523.78 -14065523.60 0.0534 0.0357
 Saturn -43213-03-20 07:11 J -14062046.44 -14062046.20 -14062045.97 0.0285 0.0022
 Jupiter -43211-09-17 02:52 J -14061135.57 -14061135.38 -14061135.19 0.0536 0.0275
 Uranus -43208-09-28 00:42 J -14060028.55 -14060028.47 -14060028.34 0.0132 0.0120
 Uranus -43207-10-02 09:21 J -14059659.35 -14059659.11 -14059658.86 0.0132 0.0012
 Uranus -43206-10-06 09:50 J -14059290.26 -14059290.09 -14059289.89 0.0132 0.0093
 Jupiter -43205-03-10 15:50 J -14059134.05 -14059133.84 -14059133.62 0.0494 0.0188
 Pluto -43202-09-22 09:35 J -14057843.30 -14057843.10 -14057842.88 0.0079 0.0049
 Saturn -43199-09-18 00:28 J -14056751.69 -14056751.48 -14056751.27 0.0273 0.0151
 Saturn -43198-09-30 12:28 J -14056374.13 -14056373.98 -14056373.80 0.0274 0.0198
 Jupiter -43193-03-14 14:52 J -14054747.08 -14054746.88 -14054746.67 0.0492 0.0221
 Saturn -43184-03-14 12:57 J -14051460.13 -14051459.96 -14051459.78 0.0285 0.0205
 Saturn -43183-03-28 00:42 J -14051081.66 -14051081.47 -14051081.28 0.0285 0.0190
 Saturn -43169-09-24 21:06 J -14045786.86 -14045786.62 -14045786.37 0.0274 0.0046
 Mars -43167-08-14 09:35 J -14045098.25 -14045098.10 -14045097.94 0.1604 0.0783
 Uranus -43165-03-27 10:47 J -14044507.23 -14044507.05 -14044506.87 0.0146 0.0101
 Neptune -43165-08-24 19:26 J -14044356.84 -14044356.69 -14044356.49 0.0088 0.0064
 Uranus -43164-04-01 15:35 J -14044137.09 -14044136.85 -14044136.60 0.0147 0.0055
 Neptune -43164-08-27 11:30 J -14043989.27 -14043989.02 -14043988.75 0.0088 0.0022
 Neptune -43163-08-29 21:50 J -14043621.84 -14043621.59 -14043621.34 0.0088 0.0004
 Neptune -43162-09-01 08:09 J -14043254.39 -14043254.16 -14043253.92 0.0088 0.0045
 Neptune -43161-09-02 22:47 J -14042886.68 -14042886.55 -14042886.39 0.0088 0.0072
 Saturn -43154-03-22 21:21 J -14040494.84 -14040494.61 -14040494.37 0.0285 0.0022
 Jupiter -43140-09-11 01:11 J -14035208.58 -14035208.45 -14035208.32 0.0534 0.0440
 Saturn -43140-09-19 07:40 J -14035200.39 -14035200.18 -14035199.95 0.0273 0.0114
 Saturn -43139-10-02 01:11 J -14034822.57 -14034822.45 -14034822.33 0.0274 0.0234
 Jupiter -43128-09-16 04:47 J -14030820.52 -14030820.30 -14030820.07 0.0536 0.0188
 Saturn -43125-03-15 19:26 J -14029908.89 -14029908.69 -14029908.48 0.0285 0.0161
 Saturn -43124-03-29 10:18 J -14029530.19 -14029530.07 -14029529.92 0.0285 0.0234
 Uranus -43124-09-28 10:18 J -14029347.20 -14029347.07 -14029346.90 0.0132 0.0107

Uranus -43123-10-02 19:54 J -14028977.91 -14028977.67 -14028977.42 0.0132 0.0008
 Jupiter -43122-03-10 12:42 J -14028819.17 -14028818.97 -14028818.78 0.0494 0.0268
 Uranus -43122-10-06 19:40 J -14028608.83 -14028608.68 -14028608.47 0.0132 0.0096
 Saturn -43111-09-14 14:52 J -14024612.92 -14024612.88 -14024612.82 0.0274 0.0269
 Jupiter -43110-03-15 01:54 J -14024431.64 -14024431.42 -14024431.20 0.0493 0.0142
 Saturn -43110-09-27 01:26 J -14024235.68 -14024235.44 -14024235.19 0.0275 0.0083
 Saturn -43095-03-24 11:02 J -14018943.27 -14018943.04 -14018942.79 0.0285 0.0068
 Mars -43088-08-16 05:30 J -14016241.45 -14016241.27 -14016241.09 0.1604 0.0493
 Neptune -43083-02-20 15:06 J -14014592.04 -14014591.87 -14014591.69 0.0089 0.0063
 Neptune -43082-02-23 03:21 J -14014224.60 -14014224.36 -14014224.11 0.0089 0.0036
 Neptune -43081-02-25 16:47 J -14013857.04 -14013856.80 -14013856.55 0.0089 0.0005
 Uranus -43081-03-27 20:52 J -14013825.83 -14013825.63 -14013825.42 0.0146 0.0081
 Saturn -43081-09-20 20:52 J -14013648.86 -14013648.63 -14013648.40 0.0274 0.0073
 Neptune -43080-02-26 23:45 J -14013489.74 -14013489.51 -14013489.25 0.0089 0.0032
 Uranus -43080-04-02 00:57 J -14013455.70 -14013455.46 -14013455.21 0.0146 0.0052
 Neptune -43079-03-01 17:16 J -14013121.91 -14013121.78 -14013121.63 0.0089 0.0073
 Saturn -43066-03-18 07:11 J -14008357.42 -14008357.20 -14008356.98 0.0285 0.0116
 Saturn -43065-03-31 01:40 J -14007978.47 -14007978.43 -14007978.37 0.0285 0.0278
 Jupiter -43057-09-09 21:35 J -14004893.62 -14004893.60 -14004893.58 0.0532 0.0530
 Saturn -43052-09-15 19:40 J -14003061.81 -14003061.68 -14003061.53 0.0274 0.0228
 Saturn -43051-09-28 06:42 J -14002684.44 -14002684.22 -14002684.00 0.0275 0.0124
 Jupiter -43045-09-14 22:18 J -14000505.79 -14000505.57 -14000505.34 0.0534 0.0069
 Pluto -43043-03-21 09:35 J -13999953.23 -13999953.10 -13999952.94 0.0065 0.0054
 Pluto -43042-03-22 16:33 J -13999587.03 -13999586.81 -13999586.56 0.0066 0.0026
 Uranus -43040-09-28 19:11 J -13998665.81 -13998665.70 -13998665.54 0.0132 0.0112
 Jupiter -43039-03-09 22:04 J -13998503.74 -13998503.58 -13998503.42 0.0495 0.0350
 Uranus -43039-10-03 05:45 J -13998296.51 -13998296.26 -13998296.01 0.0132 0.0002
 Uranus -43038-10-07 04:18 J -13997927.46 -13997927.32 -13997927.13 0.0132 0.0102
 Saturn -43037-03-12 08:52 J -13997770.16 -13997770.13 -13997770.09 0.0285 0.0282
 Saturn -43036-03-25 20:38 J -13997391.86 -13997391.64 -13997391.40 0.0285 0.0113

Jupiter -43027-03-14 02:38 J -13994116.63 -13994116.39 -13994116.15 0.0493 0.0066

Saturn -43022-09-23 10:47 J -13992097.29 -13992097.05 -13992096.81 0.0274 0.0030

Saturn -43007-03-20 00:14 J -13986805.72 -13986805.49 -13986805.26 0.0285 0.0072

Neptune -43001-08-24 08:23 J -13984456.29 -13984456.15 -13984456.00 0.0088 0.0074

43RD MILLENNIUM BCE

This is a list of transits of Moon in the 43rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Neptune	-43000-08-26 19:11 J	-13984088.90	-13984088.70	-13984088.47	0.0088	0.0044		
Neptune	-42999-08-29 05:45 J	-13983721.53	-13983721.26	-13983720.99	0.0088	0.0006		
Neptune	-42998-08-31 21:50 J	-13983353.83	-13983353.59	-13983353.35	0.0088	0.0024		
Uranus	-42997-03-28 05:59 J	-13983144.42	-13983144.25	-13983144.04	0.0146	0.0092		
Neptune	-42997-09-02 03:35 J	-13982986.53	-13982986.35	-13982986.15	0.0088	0.0062		
Uranus	-42996-04-02 08:52 J	-13982774.36	-13982774.13	-13982773.89	0.0146	0.0066		
Saturn	-42993-09-17 00:57 J	-13981510.62	-13981510.46	-13981510.27	0.0274	0.0189		
Saturn	-42992-09-29 17:02 J	-13981132.98	-13981132.79	-13981132.60	0.0275	0.0163		
Saturn	-42978-03-14 17:30 J	-13976218.89	-13976218.77	-13976218.62	0.0285	0.0237		
Saturn	-42977-03-27 05:45 J	-13975840.45	-13975840.26	-13975840.04	0.0285	0.0160		
Saturn	-42963-09-24 19:11 J	-13970545.95	-13970545.70	-13970545.45	0.0274	0.0010		
Mars	-42962-08-13 15:35 J	-13970222.95	-13970222.85	-13970222.75	0.1607	0.1388		
Jupiter	-42962-09-15 00:14 J	-13970190.73	-13970190.49	-13970190.25	0.0534	0.0045		
Jupiter	-42956-03-08 22:18 J	-13968188.68	-13968188.57	-13968188.44	0.0495	0.0427		
Pluto	-42956-09-23 09:35 J	-13967990.23	-13967990.10	-13967989.90	0.0079	0.0061		

Uranus -42956-09-29 04:18 J -13967984.49 -13967984.32 -13967984.14 0.0132 0.0097
 Uranus -42955-10-03 15:21 J -13967615.11 -13967614.86 -13967614.61 0.0132 0.0002
 Uranus -42954-10-07 13:40 J -13967246.06 -13967245.93 -13967245.75 0.0132 0.0106
 Jupiter -42950-09-20 00:28 J -13965802.54 -13965802.48 -13965802.42 0.0536 0.0516
 Saturn -42948-03-21 15:35 J -13965254.10 -13965253.85 -13965253.61 0.0285 0.0026
 Jupiter -42944-03-13 08:23 J -13963801.37 -13963801.15 -13963800.92 0.0494 0.0017
 Saturn -42934-09-19 11:45 J -13959959.20 -13959959.01 -13959958.80 0.0274 0.0150
 Saturn -42933-10-01 06:14 J -13959581.40 -13959581.24 -13959581.08 0.0275 0.0202
 Jupiter -42932-03-17 14:23 J -13959414.03 -13959413.90 -13959413.77 0.0492 0.0414
 Neptune -42919-02-20 01:11 J -13954691.54 -13954691.45 -13954691.32 0.0089 0.0081
 Saturn -42919-03-16 02:23 J -13954667.57 -13954667.40 -13954667.21 0.0285 0.0193
 Neptune -42918-02-22 15:06 J -13954324.06 -13954323.87 -13954323.66 0.0089 0.0053
 Saturn -42918-03-29 19:11 J -13954288.86 -13954288.70 -13954288.52 0.0285 0.0204
 Neptune -42917-02-24 22:04 J -13953956.84 -13953956.58 -13953956.32 0.0089 0.0011
 Neptune -42916-02-26 15:50 J -13953589.09 -13953588.84 -13953588.59 0.0089 0.0016
 Neptune -42915-02-28 20:23 J -13953221.84 -13953221.65 -13953221.44 0.0089 0.0056
 Neptune -42914-03-03 14:52 J -13952853.95 -13952853.88 -13952853.79 0.0089 0.0084
 Uranus -42913-03-28 16:18 J -13952463.02 -13952462.82 -13952462.59 0.0146 0.0072
 Uranus -42912-04-02 18:14 J -13952092.97 -13952092.74 -13952092.50 0.0146 0.0061
 Saturn -42904-09-25 23:59 J -13948994.74 -13948994.50 -13948994.25 0.0274 0.0050
 Saturn -42889-03-23 00:57 J -13943702.71 -13943702.46 -13943702.21 0.0285 0.0018
 Mars -42883-08-15 22:33 J -13941365.75 -13941365.56 -13941365.37 0.1606 0.0385
 Jupiter -42879-09-13 20:23 J -13939875.87 -13939875.65 -13939875.43 0.0534 0.0137
 Saturn -42875-09-20 23:16 J -13938407.74 -13938407.53 -13938407.30 0.0274 0.0111
 Mars -42874-02-13 03:35 J -13938262.53 -13938262.35 -13938262.18 0.1924 0.0798
 Saturn -42874-10-03 14:23 J -13938030.02 -13938029.90 -13938029.78 0.0275 0.0239
 Uranus -42872-09-29 12:28 J -13937303.12 -13937302.98 -13937302.80 0.0132 0.0104
 Uranus -42871-10-04 00:28 J -13936933.73 -13936933.48 -13936933.23 0.0132 0.0008
 Uranus -42870-10-07 22:04 J -13936564.70 -13936564.58 -13936564.42 0.0132 0.0110
 Jupiter -42867-09-19 05:59 J -13935487.40 -13935487.25 -13935487.09 0.0535 0.0402

Jupiter -42861-03-12 12:28 J -13933486.21 -13933485.98 -13933485.74 0.0494 0.0097
 Saturn -42860-03-17 13:26 J -13933116.13 -13933115.94 -13933115.73 0.0285 0.0152
 Saturn -42859-03-31 09:06 J -13932737.23 -13932737.12 -13932736.99 0.0285 0.0245
 Jupiter -42849-03-16 18:42 J -13929098.87 -13929098.72 -13929098.56 0.0493 0.0359
 Saturn -42846-09-15 20:09 J -13927820.72 -13927820.66 -13927820.58 0.0273 0.0261
 Saturn -42845-09-27 07:54 J -13927443.39 -13927443.17 -13927442.94 0.0274 0.0090
 Neptune -42837-08-23 18:57 J -13924555.72 -13924555.71 -13924555.65 0.0088 0.0087
 Neptune -42836-08-26 04:04 J -13924188.50 -13924188.33 -13924188.12 0.0088 0.0062
 Neptune -42835-08-28 20:38 J -13923820.89 -13923820.64 -13923820.39 0.0088 0.0020
 Neptune -42834-08-31 02:09 J -13923453.67 -13923453.41 -13923453.15 0.0088 0.0006
 Neptune -42833-09-01 20:52 J -13923085.84 -13923085.63 -13923085.41 0.0088 0.0048
 Neptune -42832-09-04 01:26 J -13922718.57 -13922718.44 -13922718.29 0.0088 0.0074
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 Neptune -42178-08-29 01:54 J -13683851.59 -13683851.42 -13683851.21 0.0088 0.0056
 Neptune -42177-08-30 13:40 J -13683484.19 -13683483.93 -13683483.66 0.0088 0.0012
 Neptune -42176-09-02 04:33 J -13683116.56 -13683116.31 -13683116.06 0.0088 0.0014
 Neptune -42175-09-04 11:02 J -13682749.22 -13682749.04 -13682748.82 0.0088 0.0057
 Neptune -42174-09-07 05:16 J -13682381.35 -13682381.28 -13682381.18 0.0088 0.0083
 Jupiter -42173-03-17 17:45 J -13682188.90 -13682188.76 -13682188.62 0.0494 0.0395
 Saturn -42168-09-25 20:09 J -13680170.91 -13680170.66 -13680170.41 0.0274 0.0049

Uranus -42157-03-31 21:50 J -13676330.82 -13676330.59 -13676330.34 0.0146 0.0052
 Uranus -42156-04-05 18:28 J -13675960.89 -13675960.73 -13675960.55 0.0146 0.0107
 Saturn -42153-03-21 03:50 J -13674880.54 -13674880.34 -13674880.13 0.0285 0.0144
 Saturn -42152-04-03 16:33 J -13674501.90 -13674501.81 -13674501.69 0.0284 0.0257
 Saturn -42139-09-20 11:30 J -13669584.17 -13669584.02 -13669583.85 0.0275 0.0207
 Saturn -42138-10-03 07:40 J -13669206.38 -13669206.18 -13669205.98 0.0275 0.0145
 Saturn -42123-03-29 07:40 J -13663915.40 -13663915.18 -13663914.95 0.0284 0.0091
 Jupiter -42120-09-12 17:30 J -13662651.87 -13662651.77 -13662651.66 0.0530 0.0466
 Uranus -42116-10-02 18:14 J -13661170.96 -13661170.74 -13661170.52 0.0132 0.0063
 Uranus -42115-10-07 01:40 J -13660801.68 -13660801.43 -13660801.16 0.0132 0.0030
 Mars -42110-08-17 11:02 J -13659026.23 -13659026.04 -13659025.86 0.1615 0.0512
 Saturn -42109-09-27 02:09 J -13658619.67 -13658619.41 -13658619.15 0.0274 0.0010
 Jupiter -42108-09-17 19:26 J -13658263.92 -13658263.69 -13658263.46 0.0533 0.0169
 Jupiter -42102-03-13 13:11 J -13656261.18 -13656260.95 -13656260.73 0.0497 0.0135
 Neptune -42096-02-23 21:06 J -13654086.79 -13654086.62 -13654086.42 0.0089 0.0059
 Neptune -42095-02-26 04:47 J -13653719.54 -13653719.30 -13653719.04 0.0089 0.0027
 Neptune -42094-02-28 21:50 J -13653351.83 -13653351.59 -13653351.33 0.0089 0.0013
 Saturn -42094-03-23 15:21 J -13653329.09 -13653328.86 -13653328.62 0.0285 0.0095
 Neptune -42093-03-02 02:38 J -13652984.61 -13652984.39 -13652984.15 0.0089 0.0042
 Neptune -42092-03-04 21:06 J -13652616.70 -13652616.62 -13652616.51 0.0089 0.0082
 Jupiter -42090-03-18 03:35 J -13651873.52 -13651873.35 -13651873.17 0.0495 0.0313
 Saturn -42080-09-22 00:14 J -13648032.67 -13648032.49 -13648032.30 0.0275 0.0168
 Saturn -42079-10-04 18:28 J -13647654.90 -13647654.73 -13647654.54 0.0275 0.0186
 Uranus -42073-04-01 05:02 J -13645649.53 -13645649.29 -13645649.03 0.0146 0.0037
 Uranus -42072-04-06 02:38 J -13645279.58 -13645279.39 -13645279.20 0.0146 0.0094
 Saturn -42065-03-17 06:28 J -13642742.32 -13642742.23 -13642742.13 0.0284 0.0261
 Saturn -42064-03-31 00:14 J -13642363.70 -13642363.49 -13642363.28 0.0284 0.0138
 Pluto -42058-03-28 22:47 J -13640174.78 -13640174.55 -13640174.30 0.0066 0.0021
 Pluto -42057-03-29 12:14 J -13639808.03 -13639807.99 -13639807.86 0.0066 0.0064
 Saturn -42050-09-29 09:35 J -13637068.34 -13637068.10 -13637067.85 0.0274 0.0033

Saturn -42035-03-24 23:59 J -13631777.75 -13631777.50 -13631777.25 0.0285 0.0051
 Uranus -42032-10-03 02:38 J -13630489.58 -13630489.39 -13630489.17 0.0132 0.0074
 Mars -42031-08-19 12:14 J -13630169.16 -13630168.99 -13630168.82 0.1613 0.0571
 Uranus -42031-10-07 09:35 J -13630120.35 -13630120.10 -13630119.85 0.0132 0.0044
 Jupiter -42025-09-16 19:11 J -13627948.92 -13627948.70 -13627948.48 0.0532 0.0084
 Saturn -42021-09-23 12:14 J -13626481.19 -13626480.99 -13626480.76 0.0275 0.0128
 Saturn -42020-10-06 00:57 J -13626103.59 -13626103.46 -13626103.31 0.0275 0.0226
 Jupiter -42019-03-12 20:38 J -13625945.84 -13625945.64 -13625945.44 0.0497 0.0223
 Neptune -42014-08-28 13:11 J -13623951.12 -13623950.95 -13623950.76 0.0088 0.0066
 Neptune -42013-08-30 04:33 J -13623583.54 -13623583.31 -13623583.07 0.0088 0.0033
 Neptune -42012-09-01 11:02 J -13623216.31 -13623216.04 -13623215.78 0.0088 0.0003
 Neptune -42011-09-04 05:02 J -13622848.51 -13622848.29 -13622848.04 0.0088 0.0036
 Neptune -42010-09-06 09:21 J -13622481.22 -13622481.11 -13622480.94 0.0088 0.0074
 Jupiter -42007-03-17 02:09 J -13621558.63 -13621558.41 -13621558.19 0.0496 0.0220
 Saturn -42006-03-19 22:33 J -13621190.70 -13621190.56 -13621190.40 0.0284 0.0217
 Saturn -42005-04-01 14:09 J -13620812.09 -13620811.91 -13620811.72 0.0284 0.0185

42ND MILLENNIUM BCE

This is a list of transits of Moon in the 42nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-41991-09-30	21:35	J	-13615516.83	-13615516.60	-13615516.37	0.0274	0.0074
Uranus	-41989-04-01	13:26	J	-13614968.19	-13614967.94	-13614967.69	0.0146	0.0045
Uranus	-41988-04-06	11:02	J	-13614598.19	-13614598.04	-13614597.88	0.0146	0.0113

Saturn -41976-03-26 09:35 J -13610226.34 -13610226.10 -13610225.85 0.0285 0.0007
 Pluto -41971-10-01 18:42 J -13608210.96 -13608210.72 -13608210.45 0.0079 0.0023
 Saturn -41962-09-25 18:42 J -13604929.95 -13604929.72 -13604929.47 0.0275 0.0090
 Saturn -41961-10-07 05:16 J -13604552.34 -13604552.28 -13604552.21 0.0275 0.0263
 Uranus -41948-10-03 11:45 J -13599808.22 -13599808.01 -13599807.78 0.0132 0.0056
 Saturn -41947-03-21 10:18 J -13599639.26 -13599639.07 -13599638.87 0.0284 0.0175
 Uranus -41947-10-07 17:02 J -13599439.04 -13599438.79 -13599438.53 0.0132 0.0035
 Saturn -41946-04-03 21:35 J -13599260.74 -13599260.60 -13599260.44 0.0284 0.0229
 Mars -41943-02-13 11:02 J -13598214.21 -13598214.04 -13598213.87 0.1912 0.0712
 Jupiter -41942-09-16 17:59 J -13597633.99 -13597633.75 -13597633.52 0.0531 0.0045
 Jupiter -41936-03-11 23:45 J -13595630.70 -13595630.51 -13595630.31 0.0498 0.0290
 Saturn -41933-09-19 16:33 J -13594342.91 -13594342.81 -13594342.69 0.0274 0.0242
 Neptune -41932-02-23 04:33 J -13594186.45 -13594186.31 -13594186.15 0.0089 0.0072
 Saturn -41932-10-02 11:16 J -13593965.25 -13593965.03 -13593964.81 0.0274 0.0113
 Neptune -41931-02-25 21:50 J -13593818.79 -13593818.59 -13593818.36 0.0089 0.0046
 Neptune -41930-02-28 02:38 J -13593451.64 -13593451.39 -13593451.13 0.0089 0.0003
 Neptune -41929-03-01 20:52 J -13593083.87 -13593083.63 -13593083.37 0.0089 0.0025
 Neptune -41928-03-04 02:09 J -13592716.55 -13592716.41 -13592716.23 0.0089 0.0068
 Jupiter -41924-03-16 09:06 J -13591243.34 -13591243.12 -13591242.91 0.0496 0.0148
 Saturn -41917-03-27 22:33 J -13588674.79 -13588674.56 -13588674.32 0.0285 0.0038
 Uranus -41905-04-01 20:23 J -13584286.89 -13584286.65 -13584286.38 0.0146 0.0031
 Uranus -41904-04-06 19:11 J -13583916.86 -13583916.70 -13583916.51 0.0146 0.0102
 Saturn -41903-09-26 21:50 J -13583378.83 -13583378.59 -13583378.34 0.0274 0.0054
 Saturn -41888-03-22 14:09 J -13578088.13 -13578087.91 -13578087.68 0.0285 0.0136
 Saturn -41887-04-05 01:11 J -13577709.52 -13577709.45 -13577709.36 0.0284 0.0268
 Saturn -41874-09-22 04:47 J -13572791.45 -13572791.30 -13572791.13 0.0274 0.0204
 Saturn -41873-10-03 19:26 J -13572413.89 -13572413.69 -13572413.47 0.0274 0.0151
 Mars -41864-02-16 11:02 J -13569356.14 -13569356.04 -13569355.94 0.1914 0.1620
 Uranus -41864-10-03 20:52 J -13569126.83 -13569126.63 -13569126.40 0.0132 0.0066
 Uranus -41863-10-08 00:57 J -13568757.69 -13568757.46 -13568757.20 0.0132 0.0051

Jupiter -41859-09-15 14:52 J -13567319.10 -13567318.88 -13567318.66 0.0531 0.0130
 Saturn -41858-03-30 09:50 J -13567123.32 -13567123.09 -13567122.85 0.0285 0.0077
 Jupiter -41853-03-11 06:14 J -13565315.39 -13565315.24 -13565315.08 0.0498 0.0359
 Neptune -41850-08-28 03:06 J -13564050.48 -13564050.37 -13564050.25 0.0088 0.0079
 Neptune -41849-08-29 09:21 J -13563683.32 -13563683.11 -13563682.90 0.0088 0.0053
 Neptune -41848-09-01 04:18 J -13563315.58 -13563315.32 -13563315.06 0.0088 0.0009
 Neptune -41847-09-03 09:06 J -13562948.36 -13562948.12 -13562947.86 0.0088 0.0018
 Jupiter -41847-09-21 03:50 J -13562930.44 -13562930.34 -13562930.22 0.0533 0.0465
 Neptune -41846-09-06 03:21 J -13562580.53 -13562580.36 -13562580.15 0.0088 0.0061
 Neptune -41845-09-07 10:18 J -13562213.09 -13562213.07 -13562213.02 0.0088 0.0088
 Saturn -41844-09-28 04:33 J -13561827.55 -13561827.31 -13561827.07 0.0274 0.0016
 Jupiter -41841-03-15 16:47 J -13560928.04 -13560927.80 -13560927.56 0.0496 0.0066
 Saturn -41829-03-23 15:35 J -13556537.08 -13556536.85 -13556536.62 0.0285 0.0100
 Mars -41826-08-18 04:47 J -13555294.49 -13555294.30 -13555294.10 0.1618 0.0437
 Uranus -41821-04-02 05:02 J -13553605.53 -13553605.29 -13553605.02 0.0146 0.0037
 Uranus -41820-04-07 04:47 J -13553235.43 -13553235.30 -13553235.15 0.0146 0.0120
 Saturn -41815-09-23 11:45 J -13551240.19 -13551240.01 -13551239.79 0.0274 0.0164
 Saturn -41814-10-05 21:21 J -13550862.78 -13550862.61 -13550862.42 0.0274 0.0187
 Pluto -41812-03-29 23:45 J -13550321.68 -13550321.51 -13550321.30 0.0066 0.0044
 Pluto -41811-03-31 06:42 J -13549955.39 -13549955.22 -13549954.98 0.0066 0.0042
 Saturn -41799-03-31 13:26 J -13545572.16 -13545571.94 -13545571.70 0.0285 0.0116
 Saturn -41785-09-29 13:26 J -13540276.18 -13540275.94 -13540275.70 0.0274 0.0021
 Uranus -41780-10-04 06:14 J -13538445.46 -13538445.24 -13538445.01 0.0132 0.0049
 Uranus -41779-10-08 08:52 J -13538076.37 -13538076.13 -13538075.87 0.0132 0.0042
 Jupiter -41776-09-15 02:52 J -13537003.59 -13537003.38 -13537003.16 0.0530 0.0208
 Jupiter -41770-03-11 15:35 J -13534999.97 -13534999.85 -13534999.73 0.0499 0.0429
 Saturn -41770-03-25 19:40 J -13534985.91 -13534985.68 -13534985.44 0.0285 0.0064
 Neptune -41767-02-25 01:40 J -13533918.60 -13533918.43 -13533918.21 0.0089 0.0058
 Neptune -41766-02-27 20:09 J -13533550.90 -13533550.66 -13533550.40 0.0089 0.0025
 Neptune -41765-03-01 01:40 J -13533183.67 -13533183.43 -13533183.18 0.0089 0.0016

Neptune -41764-03-03 17:02 J -13532816.00 -13532815.79 -13532815.54 0.0089 0.0046
 Jupiter -41764-09-19 17:16 J -13532615.96 -13532615.78 -13532615.59 0.0532 0.0335
 Neptune -41763-03-06 02:23 J -13532448.43 -13532448.40 -13532448.30 0.0089 0.0087
 Jupiter -41758-03-15 20:52 J -13530612.86 -13530612.63 -13530612.40 0.0497 0.0011
 Saturn -41756-09-24 13:40 J -13529689.16 -13529688.93 -13529688.71 0.0274 0.0129
 Saturn -41755-10-07 00:14 J -13529311.63 -13529311.49 -13529311.35 0.0274 0.0223
 Mars -41747-08-20 17:02 J -13526436.96 -13526436.79 -13526436.62 0.1616 0.0854
 Jupiter -41746-03-20 13:40 J -13526225.02 -13526224.93 -13526224.84 0.0495 0.0454
 Saturn -41741-03-19 02:52 J -13524399.49 -13524399.38 -13524399.26 0.0285 0.0253
 Saturn -41740-04-01 12:14 J -13524021.20 -13524020.99 -13524020.78 0.0285 0.0152
 Uranus -41737-04-02 12:42 J -13522924.23 -13522923.97 -13522923.71 0.0146 0.0023
 Uranus -41736-04-07 13:40 J -13522554.08 -13522553.93 -13522553.76 0.0146 0.0110
 Saturn -41726-10-01 19:26 J -13518724.93 -13518724.69 -13518724.45 0.0274 0.0056
 Pluto -41725-10-02 11:45 J -13518358.26 -13518358.01 -13518357.75 0.0079 0.0009
 Saturn -41711-03-27 00:42 J -13513434.70 -13513434.47 -13513434.23 0.0285 0.0031
 Saturn -41697-09-25 13:40 J -13508138.16 -13508137.93 -13508137.70 0.0274 0.0098
 Uranus -41696-10-04 15:50 J -13507764.05 -13507763.84 -13507763.61 0.0132 0.0058
 Saturn -41696-10-08 05:59 J -13507760.31 -13507760.25 -13507760.17 0.0274 0.0261
 Uranus -41695-10-08 17:30 J -13507394.99 -13507394.77 -13507394.52 0.0132 0.0059
 Jupiter -41693-09-13 17:45 J -13506688.94 -13506688.76 -13506688.56 0.0530 0.0322
 Jupiter -41687-03-10 20:09 J -13504684.72 -13504684.66 -13504684.60 0.0499 0.0480
 Neptune -41685-08-29 02:52 J -13503782.55 -13503782.38 -13503782.19 0.0088 0.0064
 Neptune -41684-08-31 07:40 J -13503415.41 -13503415.18 -13503414.93 0.0088 0.0029
 Neptune -41683-09-03 01:40 J -13503047.69 -13503047.43 -13503047.16 0.0088 0.0007
 Saturn -41682-03-20 23:30 J -13502848.66 -13502848.52 -13502848.35 0.0285 0.0224
 Neptune -41682-09-05 08:38 J -13502680.35 -13502680.14 -13502679.90 0.0088 0.0040
 Saturn -41681-04-02 12:28 J -13502470.15 -13502469.98 -13502469.79 0.0285 0.0188
 Neptune -41681-09-06 22:04 J -13502312.68 -13502312.58 -13502312.41 0.0088 0.0077
 Jupiter -41681-09-19 03:35 J -13502300.55 -13502300.35 -13502300.15 0.0532 0.0252
 Jupiter -41675-03-15 14:09 J -13500297.14 -13500296.91 -13500296.68 0.0497 0.0046

Saturn -41668-09-20 07:40 J -13497551.21 -13497551.18 -13497551.13 0.0274 0.0269
 Saturn -41667-10-02 20:09 J -13497173.90 -13497173.66 -13497173.42 0.0274 0.0090
 Jupiter -41663-03-19 14:38 J -13495910.03 -13495909.89 -13495909.75 0.0495 0.0393
 Mars -41659-02-12 21:50 J -13494483.62 -13494483.59 -13494483.57 0.1906 0.1889
 Uranus -41653-04-02 21:50 J -13492242.84 -13492242.59 -13492242.33 0.0146 0.0026
 Saturn -41652-03-28 01:26 J -13491883.69 -13491883.44 -13491883.19 0.0285 0.0004
 Uranus -41652-04-07 23:45 J -13491872.61 -13491872.51 -13491872.38 0.0146 0.0129
 Saturn -41638-09-27 18:28 J -13486586.96 -13486586.73 -13486586.49 0.0274 0.0068
 Saturn -41623-03-22 00:14 J -13481297.67 -13481297.49 -13481297.32 0.0284 0.0193
 Saturn -41622-04-04 17:16 J -13480918.92 -13480918.78 -13480918.63 0.0285 0.0223
 Mars -41621-08-16 13:40 J -13480419.00 -13480418.93 -13480418.85 0.1622 0.1460
 Uranus -41612-10-05 01:40 J -13477082.66 -13477082.43 -13477082.18 0.0132 0.0041
 Uranus -41611-10-09 02:23 J -13476713.63 -13476713.40 -13476713.15 0.0132 0.0050
 Jupiter -41610-09-14 07:40 J -13476373.33 -13476373.18 -13476373.01 0.0529 0.0380
 Saturn -41609-09-21 06:42 J -13476000.32 -13476000.22 -13476000.08 0.0274 0.0240
 Saturn -41608-10-03 17:59 J -13475622.97 -13475622.75 -13475622.52 0.0274 0.0120
 Neptune -41603-02-24 18:28 J -13474017.86 -13474017.73 -13474017.54 0.0089 0.0072
 Neptune -41602-02-27 00:57 J -13473650.66 -13473650.46 -13473650.23 0.0089 0.0044
 Neptune -41601-02-29 16:18 J -13473283.08 -13473282.82 -13473282.55 0.0089 0.0001
 Neptune -41600-03-03 02:23 J -13472915.63 -13472915.40 -13472915.16 0.0089 0.0027
 Neptune -41599-03-05 11:30 J -13472548.15 -13472548.02 -13472547.83 0.0089 0.0071
 Jupiter -41598-09-19 10:33 J -13471985.29 -13471985.06 -13471984.83 0.0532 0.0175
 Saturn -41593-03-28 20:38 J -13470332.89 -13470332.64 -13470332.38 0.0285 0.0031
 Jupiter -41592-03-14 15:06 J -13469982.10 -13469981.87 -13469981.64 0.0498 0.0115
 Mars -41580-02-16 06:28 J -13465625.40 -13465625.23 -13465625.05 0.1909 0.0587
 Jupiter -41580-03-19 05:59 J -13465594.41 -13465594.25 -13465594.10 0.0496 0.0356
 Saturn -41579-09-29 01:26 J -13465035.68 -13465035.44 -13465035.20 0.0275 0.0038
 Uranus -41569-04-03 05:45 J -13461561.52 -13461561.26 -13461560.99 0.0146 0.0015
 Uranus -41568-04-08 09:35 J -13461191.24 -13461191.10 -13461190.96 0.0146 0.0120
 Pluto -41565-04-01 07:11 J -13460102.44 -13460102.20 -13460101.94 0.0066 0.0013

Saturn -41564-03-23 05:45 J -13459746.46 -13459746.26 -13459746.07 0.0284 0.0161
 Saturn -41563-04-05 21:21 J -13459367.71 -13459367.61 -13459367.50 0.0284 0.0255
 Saturn -41550-09-23 05:02 J -13454449.44 -13454449.29 -13454449.12 0.0274 0.0213
 Saturn -41549-10-04 20:52 J -13454071.83 -13454071.63 -13454071.43 0.0274 0.0152
 Mars -41542-08-19 10:04 J -13451562.26 -13451562.08 -13451561.90 0.1621 0.0138
 Saturn -41534-03-30 17:30 J -13448782.00 -13448781.77 -13448781.53 0.0284 0.0063
 Uranus -41528-10-05 11:59 J -13446401.22 -13446401.00 -13446400.76 0.0132 0.0049
 Jupiter -41527-09-13 07:26 J -13446058.30 -13446058.19 -13446058.08 0.0528 0.0468
 Uranus -41527-10-09 11:45 J -13446032.21 -13446032.01 -13446031.77 0.0132 0.0069
 Neptune -41521-08-28 05:16 J -13443882.38 -13443882.28 -13443882.13 0.0088 0.0077
 Neptune -41520-08-30 23:30 J -13443514.74 -13443514.52 -13443514.30 0.0088 0.0051
 Saturn -41520-09-30 03:06 J -13443484.63 -13443484.37 -13443484.12 0.0275 0.0008
 Neptune -41519-09-02 07:40 J -13443147.42 -13443147.18 -13443146.92 0.0088 0.0007
 Neptune -41518-09-04 20:52 J -13442779.88 -13442779.63 -13442779.35 0.0088 0.0020
 Neptune -41517-09-06 09:21 J -13442412.26 -13442412.11 -13442411.92 0.0088 0.0064
 Jupiter -41515-09-18 07:26 J -13441670.42 -13441670.19 -13441669.97 0.0530 0.0070
 Jupiter -41509-03-14 05:16 J -13439666.49 -13439666.28 -13439666.06 0.0499 0.0171
 Saturn -41505-03-24 10:18 J -13438195.28 -13438195.07 -13438194.84 0.0284 0.0127
 Jupiter -41497-03-18 14:38 J -13435279.08 -13435278.89 -13435278.70 0.0497 0.0308
 Saturn -41491-09-24 09:06 J -13432898.29 -13432898.12 -13432897.93 0.0274 0.0180
 Saturn -41490-10-07 04:33 J -13432520.47 -13432520.31 -13432520.13 0.0274 0.0188
 Uranus -41485-04-03 15:21 J -13430880.12 -13430879.86 -13430879.60 0.0146 0.0015
 Uranus -41484-04-08 19:26 J -13430509.75 -13430509.69 -13430509.59 0.0146 0.0138
 Pluto -41479-10-04 06:14 J -13428505.38 -13428505.24 -13428505.04 0.0079 0.0057
 Saturn -41475-03-31 21:50 J -13427230.81 -13427230.59 -13427230.36 0.0284 0.0100
 Mars -41463-08-21 11:30 J -13422705.15 -13422705.02 -13422704.88 0.1619 0.1152
 Saturn -41461-10-01 01:26 J -13421933.69 -13421933.44 -13421933.19 0.0275 0.0026
 Saturn -41446-03-26 11:16 J -13416644.27 -13416644.03 -13416643.78 0.0284 0.0087
 Uranus -41444-10-05 22:33 J -13415719.80 -13415719.56 -13415719.31 0.0132 0.0031
 Uranus -41443-10-09 21:21 J -13415350.82 -13415350.61 -13415350.36 0.0132 0.0060

Neptune -41438-02-26 13:26 J -13413750.13 -13413749.94 -13413749.72 0.0089 0.0057
 Neptune -41437-02-29 00:42 J -13413382.70 -13413382.47 -13413382.23 0.0089 0.0024
 Neptune -41436-03-02 10:04 J -13413015.33 -13413015.08 -13413014.81 0.0089 0.0016
 Neptune -41435-03-05 01:40 J -13412647.62 -13412647.43 -13412647.20 0.0089 0.0049
 Neptune -41434-03-07 07:26 J -13412280.22 -13412280.19 -13412280.13 0.0089 0.0087
 Jupiter -41432-09-17 18:28 J -13411354.97 -13411354.73 -13411354.49 0.0530 0.0008
 Saturn -41432-09-25 17:16 J -13411346.97 -13411346.78 -13411346.57 0.0274 0.0145
 Saturn -41431-10-08 10:33 J -13410969.20 -13410969.06 -13410968.92 0.0274 0.0223
 Jupiter -41426-03-14 11:45 J -13409351.22 -13409351.01 -13409350.79 0.0499 0.0235
 Saturn -41417-03-19 13:26 J -13406057.96 -13406057.94 -13406057.90 0.0284 0.0281
 Saturn -41416-04-02 05:45 J -13405679.46 -13405679.26 -13405679.04 0.0284 0.0139
 Jupiter -41414-03-18 19:54 J -13404963.86 -13404963.67 -13404963.47 0.0497 0.0248
 Saturn -41402-10-03 03:50 J -13400382.58 -13400382.34 -13400382.10 0.0275 0.0060
 Uranus -41401-04-03 23:45 J -13400198.77 -13400198.51 -13400198.24 0.0146 0.0007
 Uranus -41400-04-09 05:45 J -13399828.36 -13399828.26 -13399828.14 0.0146 0.0131
 Saturn -41387-03-27 13:40 J -13395093.17 -13395092.93 -13395092.68 0.0284 0.0046
 Saturn -41373-09-27 00:57 J -13389795.68 -13389795.46 -13389795.22 0.0275 0.0110
 Saturn -41372-10-09 12:57 J -13389418.04 -13389417.96 -13389417.89 0.0274 0.0262
 Uranus -41361-10-01 21:21 J -13385407.61 -13385407.61 -13385407.60 0.0132 0.0132
 Uranus -41360-10-06 09:06 J -13385038.35 -13385038.12 -13385037.87 0.0132 0.0037
 Uranus -41359-10-10 07:40 J -13384669.37 -13384669.18 -13384668.95 0.0132 0.0079
 Saturn -41358-03-21 23:02 J -13384506.65 -13384506.54 -13384506.40 0.0284 0.0243
 Saturn -41357-04-03 11:16 J -13384128.22 -13384128.03 -13384127.83 0.0284 0.0180
 Neptune -41356-08-30 04:47 J -13383614.45 -13383614.30 -13383614.11 0.0088 0.0065
 Neptune -41355-09-01 17:16 J -13383247.03 -13383246.78 -13383246.52 0.0088 0.0028
 Neptune -41354-09-04 06:57 J -13382879.46 -13382879.21 -13382878.96 0.0088 0.0007
 Neptune -41353-09-05 14:23 J -13382512.12 -13382511.90 -13382511.65 0.0088 0.0043
 Neptune -41352-09-08 07:54 J -13382144.27 -13382144.17 -13382144.02 0.0088 0.0078
 Jupiter -41349-09-16 13:11 J -13381040.17 -13381039.95 -13381039.72 0.0529 0.0105
 Saturn -41344-09-21 15:21 J -13379208.86 -13379208.86 -13379208.85 0.0276 0.0276

Jupiter -41343-03-13 14:23 J -13379036.07 -13379035.90 -13379035.72 0.0500 0.0312
 Saturn -41343-10-04 11:45 J -13378831.23 -13378831.01 -13378830.79 0.0275 0.0099
 Mars -41337-08-17 19:11 J -13376686.84 -13376686.70 -13376686.56 0.1626 0.1123
 Jupiter -41337-09-21 21:06 J -13376651.72 -13376651.62 -13376651.51 0.0531 0.0467
 Jupiter -41331-03-18 05:16 J -13374648.49 -13374648.28 -13374648.05 0.0498 0.0188
 Saturn -41328-03-28 23:02 J -13373541.78 -13373541.54 -13373541.30 0.0284 0.0004
 Pluto -41319-04-02 22:47 J -13370249.79 -13370249.55 -13370249.28 0.0066 0.0021
 Pluto -41318-04-04 11:02 J -13369883.18 -13369883.04 -13369882.89 0.0066 0.0054
 Uranus -41317-04-04 09:50 J -13369517.35 -13369517.09 -13369516.83 0.0146 0.0003
 Saturn -41314-09-29 05:16 J -13368244.52 -13368244.28 -13368244.03 0.0275 0.0072
 Saturn -41299-03-23 07:40 J -13362955.35 -13362955.18 -13362954.99 0.0284 0.0200
 Saturn -41298-04-05 15:50 J -13362576.99 -13362576.84 -13362576.68 0.0284 0.0225
 Mars -41296-02-15 06:57 J -13361895.41 -13361895.21 -13361895.01 0.1903 0.0758
 Saturn -41285-09-23 01:11 J -13357657.57 -13357657.45 -13357657.34 0.0276 0.0240
 Saturn -41284-10-05 22:04 J -13357279.78 -13357279.58 -13357279.37 0.0276 0.0137
 Uranus -41277-10-02 08:09 J -13354726.16 -13354726.16 -13354726.13 0.0132 0.0132
 Uranus -41276-10-06 20:38 J -13354356.89 -13354356.64 -13354356.39 0.0132 0.0019
 Uranus -41275-10-10 18:14 J -13353987.94 -13353987.74 -13353987.51 0.0132 0.0072
 Neptune -41274-02-25 22:18 J -13353849.69 -13353849.57 -13353849.40 0.0089 0.0072
 Neptune -41273-02-28 07:11 J -13353482.42 -13353482.20 -13353481.96 0.0089 0.0044
 Neptune -41272-03-01 23:30 J -13353114.77 -13353114.52 -13353114.27 0.0089 0.0001
 Neptune -41271-03-04 04:33 J -13352747.55 -13352747.31 -13352747.06 0.0089 0.0027
 Neptune -41270-03-06 22:47 J -13352379.68 -13352379.55 -13352379.38 0.0089 0.0072
 Saturn -41269-03-30 13:11 J -13351990.18 -13351989.95 -13351989.71 0.0284 0.0045
 Jupiter -41266-09-16 18:14 J -13350724.95 -13350724.74 -13350724.53 0.0529 0.0224
 Jupiter -41260-03-13 01:26 J -13348720.59 -13348720.44 -13348720.28 0.0500 0.0375
 Mars -41258-08-21 00:14 J -13347829.67 -13347829.49 -13347829.31 0.1624 0.0272
 Saturn -41255-09-30 09:35 J -13346693.34 -13346693.10 -13346692.85 0.0275 0.0033
 Jupiter -41254-09-21 15:35 J -13346337.02 -13346336.85 -13346336.67 0.0531 0.0363
 Jupiter -41248-03-17 04:33 J -13344333.53 -13344333.31 -13344333.08 0.0498 0.0123

Saturn -41240-03-24 14:23 J -13341404.11 -13341403.90 -13341403.69 0.0284 0.0152
 Saturn -41239-04-07 00:42 J -13341025.53 -13341025.47 -13341025.39 0.0284 0.0271
 Uranus -41234-03-31 20:38 J -13339205.73 -13339205.64 -13339205.55 0.0146 0.0136
 Uranus -41233-04-04 18:57 J -13338835.97 -13338835.71 -13338835.45 0.0147 0.0005
 Uranus -41232-04-10 02:38 J -13338465.42 -13338465.39 -13338465.32 0.0147 0.0144
 Pluto -41232-10-06 19:54 J -13338285.88 -13338285.67 -13338285.43 0.0078 0.0036
 Saturn -41226-09-25 12:28 J -13336106.13 -13336105.98 -13336105.81 0.0276 0.0202
 Saturn -41225-10-07 05:16 J -13335728.47 -13335728.28 -13335728.08 0.0276 0.0177
 Saturn -41210-04-02 04:04 J -13330438.56 -13330438.33 -13330438.09 0.0284 0.0092
 Saturn -41196-10-01 20:23 J -13325141.89 -13325141.65 -13325141.42 0.0275 0.0012
 Uranus -41193-10-02 18:57 J -13324044.80 -13324044.71 -13324044.59 0.0132 0.0120
 Neptune -41192-08-29 13:26 J -13323714.04 -13323713.94 -13323713.79 0.0088 0.0077
 Uranus -41192-10-07 07:26 J -13323675.44 -13323675.19 -13323674.94 0.0132 0.0024
 Neptune -41191-09-01 04:33 J -13323346.51 -13323346.31 -13323346.10 0.0088 0.0051
 Uranus -41191-10-11 05:02 J -13323306.46 -13323306.29 -13323306.09 0.0132 0.0091
 Neptune -41190-09-03 11:30 J -13322979.28 -13322979.02 -13322978.75 0.0088 0.0007
 Neptune -41189-09-05 05:16 J -13322611.52 -13322611.28 -13322611.02 0.0088 0.0020
 Neptune -41188-09-07 10:04 J -13322244.24 -13322244.08 -13322243.90 0.0088 0.0065
 Jupiter -41183-09-15 14:52 J -13320410.07 -13320409.88 -13320409.69 0.0528 0.0317
 Saturn -41181-03-26 00:28 J -13319852.70 -13319852.48 -13319852.25 0.0284 0.0103
 Mars -41179-08-22 21:21 J -13318972.67 -13318972.61 -13318972.55 0.1622 0.1505
 Jupiter -41177-03-11 22:33 J -13318405.65 -13318405.56 -13318405.47 0.0501 0.0460
 Jupiter -41171-09-20 21:06 J -13316021.81 -13316021.62 -13316021.42 0.0530 0.0276
 Saturn -41167-09-26 20:23 J -13314554.85 -13314554.65 -13314554.44 0.0276 0.0158
 Saturn -41166-10-09 09:06 J -13314177.26 -13314177.12 -13314176.96 0.0276 0.0221
 Jupiter -41165-03-16 12:42 J -13314018.19 -13314017.97 -13314017.74 0.0499 0.0043
 Saturn -41152-03-21 04:47 J -13309265.34 -13309265.30 -13309265.24 0.0283 0.0277
 Saturn -41151-04-03 13:40 J -13308887.14 -13308886.93 -13308886.70 0.0284 0.0145
 Uranus -41150-04-01 07:11 J -13308524.27 -13308524.20 -13308524.11 0.0146 0.0138
 Uranus -41149-04-05 05:02 J -13308154.55 -13308154.29 -13308154.03 0.0147 0.0010

Saturn -41137-10-03 10:47 J -13303590.29 -13303590.05 -13303589.82 0.0275 0.0057
 Saturn -41122-03-28 16:47 J -13298301.03 -13298300.80 -13298300.56 0.0284 0.0051
 Neptune -41109-02-27 20:38 J -13293581.83 -13293581.64 -13293581.45 0.0089 0.0059
 Uranus -41109-10-03 06:42 J -13293363.31 -13293363.22 -13293363.09 0.0132 0.0119
 Neptune -41108-03-01 01:11 J -13293214.69 -13293214.45 -13293214.19 0.0089 0.0024
 Saturn -41108-09-28 00:57 J -13293003.68 -13293003.46 -13293003.22 0.0276 0.0115
 Uranus -41108-10-07 19:11 J -13292993.95 -13292993.70 -13292993.44 0.0132 0.0007
 Neptune -41107-03-03 19:54 J -13292846.92 -13292846.67 -13292846.41 0.0089 0.0014
 Saturn -41107-10-10 15:50 J -13292625.88 -13292625.84 -13292625.77 0.0276 0.0267
 Uranus -41107-10-11 16:47 J -13292624.99 -13292624.80 -13292624.61 0.0132 0.0084
 Neptune -41106-03-06 00:28 J -13292479.66 -13292479.48 -13292479.24 0.0089 0.0049
 Neptune -41105-03-07 17:16 J -13292111.81 -13292111.78 -13292111.71 0.0089 0.0087
 Jupiter -41100-09-14 18:42 J -13290094.85 -13290094.72 -13290094.58 0.0527 0.0423
 Saturn -41093-03-22 13:26 J -13287714.08 -13287713.94 -13287713.77 0.0283 0.0227
 Saturn -41092-04-04 21:21 J -13287335.78 -13287335.61 -13287335.43 0.0284 0.0198
 Jupiter -41088-09-19 13:40 J -13285707.17 -13285706.93 -13285706.70 0.0529 0.0142
 Jupiter -41082-03-16 11:59 J -13283703.23 -13283703.00 -13283702.76 0.0500 0.0032
 Saturn -41078-10-05 22:33 J -13282038.78 -13282038.56 -13282038.33 0.0275 0.0102
 Pluto -41073-04-03 06:57 J -13280397.30 -13280397.21 -13280397.08 0.0066 0.0059
 Pluto -41072-04-05 03:50 J -13280030.57 -13280030.34 -13280030.07 0.0066 0.0018
 Jupiter -41070-03-21 02:38 J -13279315.47 -13279315.39 -13279315.31 0.0497 0.0463
 Uranus -41066-04-01 17:45 J -13277842.88 -13277842.76 -13277842.61 0.0147 0.0123
 Uranus -41065-04-05 15:06 J -13277473.13 -13277472.87 -13277472.61 0.0147 0.0016
 Saturn -41063-03-30 08:23 J -13276749.40 -13276749.15 -13276748.91 0.0284 0.0005
 Mars -41053-08-18 11:30 J -13272955.18 -13272955.02 -13272954.85 0.1630 0.0937
 Saturn -41049-09-29 08:23 J -13271452.39 -13271452.15 -13271451.92 0.0275 0.0072
 Saturn -41034-03-24 20:38 J -13266162.83 -13266162.64 -13266162.44 0.0284 0.0179
 Saturn -41033-04-06 08:38 J -13265784.24 -13265784.14 -13265784.02 0.0284 0.0249
 Neptune -41027-08-31 05:30 J -13263446.42 -13263446.27 -13263446.08 0.0088 0.0068
 Neptune -41026-09-03 00:42 J -13263078.71 -13263078.47 -13263078.22 0.0088 0.0029

Neptune -41025-09-04 05:45 J -13262711.52 -13262711.26 -13262711.01 0.0088 0.0006

Uranus -41025-10-03 18:14 J -13262681.87 -13262681.74 -13262681.57 0.0132 0.0107

Neptune -41024-09-06 23:59 J -13262343.72 -13262343.50 -13262343.26 0.0088 0.0043

Uranus -41024-10-08 06:42 J -13262312.48 -13262312.22 -13262311.96 0.0132 0.0010

Neptune -41023-09-09 06:28 J -13261976.35 -13261976.23 -13261976.10 0.0088 0.0077

Uranus -41023-10-12 04:04 J -13261943.47 -13261943.33 -13261943.16 0.0132 0.0104

Saturn -41020-09-24 15:50 J -13260864.97 -13260864.84 -13260864.71 0.0275 0.0232

Saturn -41019-10-07 05:02 J -13260487.49 -13260487.29 -13260487.06 0.0275 0.0149

Jupiter -41005-09-18 14:52 J -13255392.10 -13255391.88 -13255391.65 0.0529 0.0060

Saturn -41004-03-31 17:59 J -13255198.00 -13255197.75 -13255197.50 0.0284 0.0048

41ST MILLENNIUM BCE

This is a list of transits of Moon in the 41st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-40999-03-15 21:50 J	-13253387.81	-13253387.59	-13253387.37	0.0500	0.0101		
Saturn	-40990-10-01 19:26 J	-13249900.93	-13249900.69	-13249900.45	0.0275	0.0027		
Jupiter	-40987-03-20 02:52 J	-13249000.54	-13249000.38	-13249000.22	0.0498	0.0370		
Pluto	-40986-10-08 08:09 J	-13248433.39	-13248433.16	-13248432.90	0.0079	0.0029		
Uranus	-40982-04-02 04:33 J	-13247161.43	-13247161.31	-13247161.17	0.0147	0.0126		
Uranus	-40981-04-06 01:26 J	-13246791.69	-13246791.44	-13246791.18	0.0147	0.0023		
Saturn	-40975-03-26 05:02 J	-13244611.50	-13244611.29	-13244611.08	0.0284	0.0135		
Mars	-40974-08-21 23:30 J	-13244097.72	-13244097.52	-13244097.33	0.1628	0.0431		
Saturn	-40961-09-25 22:18 J	-13239313.75	-13239313.57	-13239313.38	0.0275	0.0189		

Saturn -40960-10-08 10:04 J -13238936.25 -13238936.08 -13238935.89 0.0275 0.0192
 Neptune -40945-02-26 21:50 J -13233681.73 -13233681.59 -13233681.44 0.0089 0.0074
 Saturn -40945-04-01 22:18 J -13233646.80 -13233646.57 -13233646.33 0.0284 0.0096
 Neptune -40944-02-28 16:04 J -13233314.05 -13233313.83 -13233313.61 0.0089 0.0046
 Neptune -40943-03-02 21:06 J -13232946.87 -13232946.62 -13232946.36 0.0089 0.0002
 Neptune -40942-03-05 12:42 J -13232579.21 -13232578.97 -13232578.71 0.0089 0.0026
 Neptune -40941-03-06 21:21 J -13232211.74 -13232211.61 -13232211.44 0.0089 0.0071
 Uranus -40941-10-04 07:11 J -13232000.34 -13232000.20 -13232000.03 0.0132 0.0103
 Uranus -40940-10-08 19:11 J -13231630.96 -13231630.70 -13231630.45 0.0132 0.0007
 Uranus -40939-10-12 16:18 J -13231261.97 -13231261.82 -13231261.64 0.0132 0.0099
 Mars -40933-02-18 15:35 J -13229307.03 -13229306.85 -13229306.68 0.1900 0.1054
 Saturn -40931-10-03 06:28 J -13228349.47 -13228349.23 -13228348.99 0.0275 0.0015
 Jupiter -40922-09-18 22:33 J -13225076.80 -13225076.56 -13225076.32 0.0528 0.0019
 Jupiter -40916-03-14 23:02 J -13223072.76 -13223072.54 -13223072.31 0.0501 0.0182
 Saturn -40916-03-27 14:52 J -13223060.11 -13223059.88 -13223059.66 0.0284 0.0091
 Jupiter -40904-03-19 09:06 J -13218685.29 -13218685.12 -13218684.94 0.0499 0.0307
 Saturn -40902-09-28 01:26 J -13217762.64 -13217762.44 -13217762.22 0.0275 0.0149
 Saturn -40901-10-09 17:45 J -13217384.88 -13217384.76 -13217384.63 0.0275 0.0235
 Uranus -40898-04-02 15:35 J -13216480.00 -13216479.85 -13216479.67 0.0147 0.0109
 Uranus -40897-04-06 12:14 J -13216110.24 -13216109.99 -13216109.73 0.0147 0.0029
 Saturn -40886-04-04 01:40 J -13212095.64 -13212095.43 -13212095.21 0.0284 0.0139
 Saturn -40872-10-04 11:59 J -13206798.24 -13206798.00 -13206797.75 0.0275 0.0056
 Neptune -40863-08-30 19:11 J -13203545.79 -13203545.70 -13203545.59 0.0088 0.0081
 Neptune -40862-09-02 00:14 J -13203178.68 -13203178.49 -13203178.28 0.0088 0.0054
 Neptune -40861-09-03 18:28 J -13202810.99 -13202810.73 -13202810.46 0.0088 0.0009
 Neptune -40860-09-06 01:11 J -13202443.68 -13202443.45 -13202443.19 0.0088 0.0019
 Neptune -40859-09-08 15:06 J -13202076.04 -13202075.87 -13202075.66 0.0088 0.0062
 Saturn -40857-03-28 20:38 J -13201508.88 -13201508.64 -13201508.39 0.0284 0.0050
 Uranus -40857-10-04 19:11 J -13201318.86 -13201318.70 -13201318.50 0.0132 0.0092
 Uranus -40856-10-09 06:57 J -13200949.47 -13200949.21 -13200948.95 0.0132 0.0006

Uranus -40855-10-13 04:33 J -13200580.39 -13200580.31 -13200580.18 0.0132 0.0119
 Saturn -40843-09-29 08:09 J -13196211.37 -13196211.16 -13196210.93 0.0275 0.0109
 Jupiter -40839-09-17 12:42 J -13194762.19 -13194761.97 -13194761.74 0.0528 0.0136
 Jupiter -40833-03-14 06:42 J -13192757.41 -13192757.22 -13192757.01 0.0501 0.0228
 Saturn -40828-03-22 18:14 J -13190922.85 -13190922.74 -13190922.61 0.0284 0.0247
 Saturn -40827-04-05 08:09 J -13190544.33 -13190544.16 -13190543.97 0.0284 0.0182
 Jupiter -40827-09-23 00:14 J -13190373.56 -13190373.49 -13190373.40 0.0530 0.0497
 Pluto -40826-04-06 09:50 J -13190178.33 -13190178.09 -13190177.84 0.0066 0.0026
 Pluto -40825-04-07 04:47 J -13189811.46 -13189811.30 -13189811.12 0.0066 0.0049
 Jupiter -40821-03-18 23:30 J -13188369.72 -13188369.52 -13188369.31 0.0499 0.0245
 Uranus -40814-04-03 02:09 J -13185798.55 -13185798.41 -13185798.22 0.0147 0.0113
 Uranus -40813-04-06 23:16 J -13185428.77 -13185428.53 -13185428.28 0.0147 0.0038
 Saturn -40813-10-05 11:45 J -13185247.24 -13185247.01 -13185246.76 0.0275 0.0098
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 Neptune -40780-02-27 16:33 J -13173413.96 -13173413.81 -13173413.60 0.0089 0.0062
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 Saturn -40769-03-23 23:59 J -13169371.65 -13169371.50 -13169371.34 0.0284 0.0208
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 Saturn -40768-04-06 14:38 J -13168993.03 -13168992.89 -13168992.74 0.0284 0.0223
 Jupiter -40756-09-17 04:47 J -13164446.51 -13164446.30 -13164446.08 0.0527 0.0191
 Saturn -40755-09-24 23:02 J -13164073.63 -13164073.54 -13164073.43 0.0275 0.0251
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 Jupiter -40750-03-14 19:26 J -13162441.88 -13162441.69 -13162441.50 0.0501 0.0287

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 Uranus -40688-10-10 08:23 J -13139586.40 -13139586.15 -13139585.89 0.0132 0.0023
 Saturn -40680-04-01 15:21 J -13136856.08 -13136855.86 -13136855.62 0.0284 0.0065
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 Saturn -40666-10-03 21:21 J -13131557.86 -13131557.61 -13131557.35 0.0275 0.0005
 Jupiter -40661-09-21 04:18 J -13129743.50 -13129743.32 -13129743.14 0.0528 0.0314
 Jupiter -40655-03-18 16:47 J -13127739.02 -13127738.80 -13127738.58 0.0500 0.0126
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 Saturn -40637-09-27 05:30 J -13120971.44 -13120971.27 -13120971.08 0.0275 0.0182

Saturn -40636-10-10 02:09 J -13120593.55 -13120593.41 -13120593.25 0.0275 0.0214
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 Saturn -40578-09-29 12:28 J -13099420.18 -13099419.98 -13099419.77 0.0275 0.0146
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 Mars -40564-08-18 19:54 J -13094347.69 -13094347.67 -13094347.65 0.1640 0.1628
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 Saturn -40562-04-04 21:06 J -13093753.83 -13093753.62 -13093753.39 0.0284 0.0135 *
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 Neptune -40529-09-10 19:54 J -13081540.70 -13081540.67 -13081540.57 0.0088 0.0086

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 Mars -40485-08-21 04:18 J -13065490.51 -13065490.32 -13065490.14 0.1637 0.0270
 Uranus -40478-04-05 00:57 J -13063072.67 -13063072.46 -13063072.24 0.0147 0.0081
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 Uranus -40477-04-08 23:16 J -13062702.74 -13062702.53 -13062702.31 0.0147 0.0072
 Saturn -40474-03-31 13:26 J -13061616.17 -13061615.94 -13061615.70 0.0283 0.0015
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 Uranus -40436-10-12 01:54 J -13047541.65 -13047541.42 -13047541.18 0.0132 0.0059
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 Jupiter -40406-03-17 12:42 J -13036793.21 -13036792.97 -13036792.73 0.0502 0.0091
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 Jupiter -40394-03-21 18:57 J -13032405.86 -13032405.71 -13032405.56 0.0500 0.0373
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 Saturn -40372-09-27 21:50 J -13024179.75 -13024179.59 -13024179.42 0.0277 0.0206
 Saturn -40371-10-10 13:11 J -13023802.12 -13023801.95 -13023801.77 0.0276 0.0201
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 Neptune -40365-09-10 07:11 J -13021640.36 -13021640.20 -13021640.02 0.0088 0.0067
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 Pluto -40332-04-10 05:30 J -13009740.51 -13009740.27 -13009740.00 0.0066 0.0015
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 Saturn -40327-03-28 09:50 J -13007927.30 -13007927.09 -13007926.88 0.0283 0.0123
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 Mars -40280-08-19 11:30 J -12990616.07 -12990616.02 -12990615.97 0.1644 0.1584
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 Jupiter -40246-09-18 21:21 J -12978167.83 -12978167.61 -12978167.38 0.0525 0.0139
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 Uranus -40185-10-09 14:38 J -12955866.13 -12955865.89 -12955865.64 0.0132 0.0017
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 Uranus -40141-04-11 03:35 J -12939976.49 -12939976.35 -12939976.17 0.0147 0.0110
 Saturn -40136-10-04 07:40 J -12937974.42 -12937974.18 -12937973.94 0.0276 0.0016
 Neptune -40122-03-01 19:26 J -12933077.82 -12933077.69 -12933077.54 0.0089 0.0074
 Mars -40122-08-25 09:50 J -12932901.23 -12932901.09 -12932900.95 0.1639 0.1121
 Neptune -40121-03-03 01:11 J -12932710.68 -12932710.45 -12932710.22 0.0089 0.0034
 Saturn -40121-03-27 19:11 J -12932685.90 -12932685.70 -12932685.50 0.0282 0.0150
 Neptune -40120-03-05 16:33 J -12932343.08 -12932342.81 -12932342.55 0.0089 0.0001
 Saturn -40120-04-10 06:57 J -12932307.23 -12932307.21 -12932307.18 0.0283 0.0281
 Neptune -40119-03-08 01:11 J -12931975.65 -12931975.45 -12931975.21 0.0089 0.0040
 Neptune -40118-03-10 11:45 J -12931608.13 -12931608.01 -12931607.83 0.0089 0.0073
 Saturn -40107-09-29 02:09 J -12927387.58 -12927387.41 -12927387.21 0.0276 0.0189
 Saturn -40106-10-11 20:23 J -12927009.79 -12927009.65 -12927009.50 0.0276 0.0217
 Uranus -40102-10-07 00:28 J -12925553.59 -12925553.48 -12925553.32 0.0132 0.0113
 Uranus -40101-10-10 06:28 J -12925184.47 -12925184.23 -12925183.98 0.0132 0.0007
 Uranus -40100-10-14 11:16 J -12924815.21 -12924815.03 -12924814.86 0.0132 0.0098

Saturn -40091-04-04 05:02 J -12921721.52 -12921721.29 -12921721.05 0.0283 0.0081
 Pluto -40086-04-10 22:33 J -12919888.65 -12919888.56 -12919888.44 0.0066 0.0060
 Pluto -40085-04-11 19:26 J -12919521.93 -12919521.69 -12919521.42 0.0066 0.0015
 Jupiter -40080-09-16 19:40 J -12917537.84 -12917537.68 -12917537.51 0.0524 0.0358
 Saturn -40077-10-05 17:30 J -12916423.02 -12916422.77 -12916422.52 0.0276 0.0033
 Jupiter -40074-03-15 01:26 J -12915532.54 -12915532.44 -12915532.34 0.0505 0.0449
 Jupiter -40068-09-21 18:42 J -12913149.95 -12913149.72 -12913149.49 0.0526 0.0179
 Jupiter -40062-03-19 07:40 J -12911145.42 -12911145.18 -12911144.94 0.0503 0.0051
 Saturn -40062-03-30 06:42 J -12911134.45 -12911134.22 -12911133.99 0.0283 0.0101
 Uranus -40058-04-07 16:04 J -12909665.09 -12909664.83 -12909664.57 0.0147 0.0021
 Uranus -40057-04-11 17:45 J -12909294.91 -12909294.76 -12909294.59 0.0147 0.0112
 Saturn -40048-09-30 11:16 J -12905836.23 -12905836.03 -12905835.82 0.0276 0.0143
 Saturn -40047-10-13 09:21 J -12905458.16 -12905458.11 -12905458.04 0.0276 0.0266
 Neptune -40040-09-01 19:54 J -12902942.69 -12902942.67 -12902942.63 0.0088 0.0088
 Neptune -40039-09-04 13:11 J -12902575.16 -12902574.95 -12902574.70 0.0088 0.0044
 Neptune -40038-09-06 21:21 J -12902207.85 -12902207.61 -12902207.35 0.0088 0.0015
 Neptune -40037-09-08 10:47 J -12901840.30 -12901840.05 -12901839.79 0.0088 0.0029
 Neptune -40036-09-10 22:33 J -12901472.72 -12901472.56 -12901472.35 0.0088 0.0059
 Saturn -40032-04-05 16:47 J -12900170.00 -12900169.80 -12900169.58 0.0283 0.0128
 Uranus -40018-10-07 14:23 J -12894872.06 -12894871.90 -12894871.70 0.0132 0.0097
 Saturn -40018-10-07 21:35 J -12894871.84 -12894871.60 -12894871.35 0.0276 0.0079 *
 Uranus -40017-10-10 20:52 J -12894502.87 -12894502.63 -12894502.38 0.0132 0.0003
 Uranus -40016-10-15 00:42 J -12894133.63 -12894133.47 -12894133.30 0.0132 0.0103
 Saturn -40003-03-31 10:33 J -12889583.31 -12889583.06 -12889582.81 0.0283 0.0058
 Mars -40002-02-20 11:30 J -12889257.21 -12889257.02 -12889256.84 0.1883 0.0951

40TH MILLENNIUM BCE

This is a list of transits of Moon in the 40th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Pluto	-39999-10-15 04:04 J		-12887924.57	-12887924.33	-12887924.06	0.0078	0.0014	
Jupiter	-39997-09-15 14:23 J		-12887223.00	-12887222.90	-12887222.80	0.0523	0.0478	
Mars	-39996-08-20 19:26 J		-12886883.78	-12886883.69	-12886883.59	0.1649	0.1376	
Saturn	-39989-10-01 23:02 J		-12884284.76	-12884284.54	-12884284.31	0.0276	0.0097	
Jupiter	-39985-09-20 12:57 J		-12882835.19	-12882834.96	-12882834.74	0.0526	0.0060	
Jupiter	-39979-03-18 18:42 J		-12880829.95	-12880829.72	-12880829.50	0.0503	0.0008	
Saturn	-39974-03-25 15:21 J		-12878996.94	-12878996.86	-12878996.76	0.0282	0.0259	
Uranus	-39974-04-08 03:06 J		-12878983.62	-12878983.37	-12878983.11	0.0147	0.0028	
Saturn	-39973-04-07 03:35 J		-12878618.53	-12878618.35	-12878618.15	0.0283	0.0172	
Uranus	-39973-04-12 05:45 J		-12878613.36	-12878613.26	-12878613.12	0.0147	0.0128	
Saturn	-39959-10-09 01:26 J		-12873320.66	-12873320.44	-12873320.22	0.0276	0.0124	
Neptune	-39957-03-02 08:38 J		-12872810.32	-12872810.14	-12872809.94	0.0089	0.0061	
Neptune	-39956-03-04 19:40 J		-12872442.92	-12872442.68	-12872442.44	0.0089	0.0017	
Neptune	-39955-03-07 05:16 J		-12872075.53	-12872075.28	-12872075.00	0.0089	0.0013	
Neptune	-39954-03-09 19:54 J		-12871707.83	-12871707.67	-12871707.46	0.0089	0.0058	
Neptune	-39953-03-11 01:26 J		-12871340.46	-12871340.44	-12871340.36	0.0089	0.0088	
Saturn	-39944-04-01 10:47 J		-12868032.30	-12868032.05	-12868031.80	0.0283	0.0018	
Uranus	-39934-10-08 05:16 J		-12864190.46	-12864190.28	-12864190.09	0.0132	0.0094	
Uranus	-39933-10-11 12:14 J		-12863821.23	-12863820.99	-12863820.74	0.0132	0.0014	
Uranus	-39932-10-15 15:06 J		-12863451.98	-12863451.87	-12863451.74	0.0132	0.0117	
Saturn	-39930-10-04 09:06 J		-12862733.35	-12862733.12	-12862732.88	0.0276	0.0054	
Mars	-39917-08-22 17:59 J		-12858026.93	-12858026.75	-12858026.56	0.1646	0.0080	

Saturn -39915-03-26 23:45 J -12857445.66 -12857445.51 -12857445.36 0.0282 0.0217
 Saturn -39914-04-09 08:09 J -12857067.33 -12857067.16 -12857067.00 0.0283 0.0211
 Jupiter -39902-09-21 00:42 J -12852519.71 -12852519.47 -12852519.23 0.0525 0.0009
 Saturn -39901-09-27 10:47 J -12852147.15 -12852147.05 -12852146.92 0.0276 0.0243
 Saturn -39900-10-10 08:23 J -12851769.33 -12851769.15 -12851768.96 0.0276 0.0166
 Jupiter -39896-03-18 00:14 J -12850514.72 -12850514.49 -12850514.25 0.0503 0.0075
 Uranus -39890-04-08 16:18 J -12848302.08 -12848301.82 -12848301.56 0.0147 0.0003
 Uranus -39889-04-12 19:26 J -12847931.78 -12847931.69 -12847931.55 0.0147 0.0129
 Saturn -39885-04-02 12:28 J -12846481.22 -12846480.98 -12846480.74 0.0283 0.0020
 Jupiter -39884-03-22 07:54 J -12846127.26 -12846127.17 -12846127.06 0.0501 0.0445
 Neptune -39875-09-03 13:26 J -12842675.08 -12842674.94 -12842674.79 0.0088 0.0072
 Neptune -39874-09-06 01:54 J -12842307.66 -12842307.42 -12842307.16 0.0088 0.0030
 Neptune -39873-09-07 16:04 J -12841940.08 -12841939.83 -12841939.58 0.0088 0.0002
 Neptune -39872-09-09 23:16 J -12841572.74 -12841572.53 -12841572.28 0.0088 0.0044
 Neptune -39871-09-12 16:33 J -12841204.91 -12841204.81 -12841204.64 0.0088 0.0076
 Saturn -39871-10-05 13:11 J -12841182.20 -12841181.95 -12841181.70 0.0276 0.0010
 Saturn -39856-03-28 02:23 J -12835894.58 -12835894.40 -12835894.19 0.0282 0.0179
 Saturn -39855-04-10 06:42 J -12835516.33 -12835516.22 -12835516.09 0.0283 0.0247
 Uranus -39850-10-08 18:28 J -12833508.93 -12833508.73 -12833508.50 0.0132 0.0078
 Uranus -39849-10-12 02:23 J -12833139.64 -12833139.40 -12833139.15 0.0132 0.0022
 Uranus -39848-10-16 04:04 J -12832770.40 -12832770.33 -12832770.21 0.0132 0.0123
 Saturn -39842-09-29 17:30 J -12830595.93 -12830595.77 -12830595.60 0.0276 0.0202
 Saturn -39841-10-11 16:33 J -12830217.95 -12830217.81 -12830217.64 0.0276 0.0209
 Pluto -39838-04-14 01:26 J -12829303.69 -12829303.44 -12829303.18 0.0066 0.0003
 Mars -39838-08-26 00:57 J -12829169.59 -12829169.46 -12829169.32 0.1644 0.1227
 Saturn -39826-04-04 16:47 J -12824930.03 -12824929.80 -12824929.57 0.0283 0.0054
 Jupiter -39819-09-19 18:14 J -12822204.97 -12822204.74 -12822204.51 0.0524 0.0105
 Jupiter -39813-03-17 05:02 J -12820199.51 -12820199.29 -12820199.07 0.0505 0.0128
 Saturn -39812-10-06 11:59 J -12819631.25 -12819631.00 -12819630.75 0.0276 0.0033
 Uranus -39807-04-04 02:52 J -12817990.46 -12817990.38 -12817990.30 0.0146 0.0138

Jupiter -39807-09-25 01:26 J -12817816.47 -12817816.44 -12817816.40 0.0526 0.0518
 Uranus -39806-04-09 03:35 J -12817620.61 -12817620.35 -12817620.09 0.0147 0.0010
 Uranus -39805-04-13 08:23 J -12817250.18 -12817250.15 -12817250.11 0.0147 0.0145
 Jupiter -39801-03-22 00:28 J -12815811.62 -12815811.48 -12815811.34 0.0502 0.0400
 Saturn -39797-03-28 23:16 J -12814343.74 -12814343.53 -12814343.31 0.0282 0.0143
 Neptune -39793-03-01 12:28 J -12812910.04 -12812909.98 -12812909.86 0.0089 0.0084
 Neptune -39792-03-03 21:35 J -12812542.83 -12812542.60 -12812542.35 0.0089 0.0039
 Neptune -39791-03-06 13:40 J -12812175.17 -12812174.93 -12812174.68 0.0089 0.0008
 Neptune -39790-03-08 18:57 J -12811807.94 -12811807.71 -12811807.46 0.0089 0.0035
 Neptune -39789-03-10 13:26 J -12811440.10 -12811439.94 -12811439.76 0.0089 0.0066
 Saturn -39783-10-01 01:26 J -12809044.63 -12809044.44 -12809044.24 0.0276 0.0160
 Saturn -39782-10-13 21:06 J -12808666.72 -12808666.62 -12808666.51 0.0276 0.0248
 Saturn -39767-04-05 18:57 J -12803378.94 -12803378.71 -12803378.47 0.0283 0.0088
 Uranus -39766-10-09 08:23 J -12802827.36 -12802827.15 -12802826.93 0.0132 0.0076
 Uranus -39765-10-12 17:16 J -12802458.02 -12802457.78 -12802457.54 0.0132 0.0032
 Saturn -39753-10-07 13:54 J -12798080.16 -12798079.92 -12798079.69 0.0276 0.0072
 Pluto -39752-10-16 10:04 J -12797706.31 -12797706.08 -12797705.85 0.0078 0.0035
 Saturn -39738-03-30 22:04 J -12792792.80 -12792792.58 -12792792.35 0.0282 0.0110
 Jupiter -39736-09-19 06:28 J -12791889.44 -12791889.23 -12791889.01 0.0524 0.0177
 Jupiter -39730-03-17 21:50 J -12789883.81 -12789883.59 -12789883.37 0.0505 0.0163
 Jupiter -39724-09-24 03:35 J -12787501.47 -12787501.35 -12787501.22 0.0526 0.0451
 Saturn -39724-10-02 04:18 J -12787493.54 -12787493.32 -12787493.09 0.0276 0.0123
 Uranus -39723-04-04 16:47 J -12787308.85 -12787308.80 -12787308.72 0.0146 0.0142
 Uranus -39722-04-09 16:47 J -12786939.06 -12786938.80 -12786938.54 0.0147 0.0014
 Uranus -39721-04-13 21:50 J -12786568.60 -12786568.59 -12786568.55 0.0147 0.0146
 Mars -39718-02-19 11:30 J -12785527.21 -12785527.02 -12785526.83 0.1875 0.0369
 Jupiter -39718-03-22 01:11 J -12785496.62 -12785496.45 -12785496.27 0.0502 0.0336
 Mars -39712-08-22 01:11 J -12783151.59 -12783151.45 -12783151.30 0.1653 0.1098
 Neptune -39710-09-05 08:52 J -12782407.33 -12782407.13 -12782406.92 0.0088 0.0050
 Neptune -39709-09-06 15:35 J -12782040.10 -12782039.85 -12782039.59 0.0088 0.0021

Saturn -39708-04-06 15:06 J -12781828.10 -12781827.87 -12781827.64 0.0283 0.0116
 Neptune -39708-09-09 09:35 J -12781672.34 -12781672.10 -12781671.84 0.0088 0.0024
 Neptune -39707-09-11 14:23 J -12781305.10 -12781304.90 -12781304.68 0.0088 0.0052
 Saturn -39694-10-09 19:54 J -12776528.88 -12776528.67 -12776528.44 0.0277 0.0109
 Uranus -39682-10-09 21:35 J -12772145.83 -12772145.60 -12772145.36 0.0132 0.0059
 Uranus -39681-10-13 06:42 J -12771776.44 -12771776.22 -12771775.97 0.0132 0.0041
 Saturn -39679-04-01 03:21 J -12771241.59 -12771241.36 -12771241.13 0.0282 0.0078
 Saturn -39665-10-03 03:21 J -12765942.61 -12765942.36 -12765942.12 0.0276 0.0085
 Jupiter -39653-09-18 09:06 J -12761574.33 -12761574.12 -12761573.90 0.0523 0.0237
 Saturn -39650-03-26 07:11 J -12760655.22 -12760655.20 -12760655.16 0.0282 0.0279
 Saturn -39649-04-07 11:30 J -12760277.23 -12760277.02 -12760276.81 0.0283 0.0145
 Jupiter -39647-03-16 21:06 J -12759568.82 -12759568.62 -12759568.40 0.0505 0.0230
 Jupiter -39641-09-23 10:33 J -12757186.21 -12757186.06 -12757185.90 0.0525 0.0375
 Uranus -39639-04-05 05:02 J -12756627.43 -12756627.29 -12756627.15 0.0146 0.0120
 Uranus -39638-04-10 04:04 J -12756257.59 -12756257.33 -12756257.07 0.0147 0.0008
 Saturn -39636-09-27 23:45 J -12755355.54 -12755355.51 -12755355.46 0.0278 0.0273
 Jupiter -39635-03-21 14:38 J -12755181.07 -12755180.89 -12755180.69 0.0504 0.0275
 Saturn -39635-10-11 00:42 J -12754977.68 -12754977.47 -12754977.26 0.0277 0.0145
 Mars -39633-08-24 05:16 J -12754294.45 -12754294.28 -12754294.10 0.1651 0.0472
 Neptune -39628-03-03 07:40 J -12752642.33 -12752642.18 -12752642.00 0.0089 0.0068
 Neptune -39627-03-05 12:28 J -12752275.22 -12752274.98 -12752274.72 0.0089 0.0024
 Neptune -39626-03-08 06:57 J -12751907.47 -12751907.21 -12751906.95 0.0089 0.0007
 Neptune -39625-03-09 11:30 J -12751540.21 -12751540.02 -12751539.80 0.0089 0.0051
 Neptune -39624-03-12 03:50 J -12751172.41 -12751172.34 -12751172.21 0.0089 0.0082
 Saturn -39620-04-02 09:35 J -12749690.34 -12749690.10 -12749689.86 0.0282 0.0043
 Saturn -39606-10-05 04:04 J -12744391.57 -12744391.33 -12744391.09 0.0276 0.0046
 Uranus -39598-10-10 10:18 J -12741464.29 -12741464.07 -12741463.82 0.0132 0.0059
 Uranus -39597-10-13 20:38 J -12741094.85 -12741094.64 -12741094.39 0.0132 0.0052
 Saturn -39591-03-27 06:42 J -12739104.33 -12739104.22 -12739104.10 0.0282 0.0245
 Pluto -39591-04-15 03:21 J -12739085.59 -12739085.36 -12739085.09 0.0066 0.0012

Saturn -39590-04-09 15:21 J -12738726.03 -12738725.86 -12738725.66 0.0282 0.0180
 Pluto -39590-04-16 12:14 J -12738719.06 -12738718.99 -12738718.86 0.0066 0.0062
 Saturn -39577-09-29 05:30 J -12733804.39 -12733804.27 -12733804.13 0.0278 0.0234
 Saturn -39576-10-12 00:57 J -12733426.64 -12733426.46 -12733426.25 0.0277 0.0181
 Jupiter -39570-09-18 15:21 J -12731259.03 -12731258.86 -12731258.68 0.0522 0.0320
 Jupiter -39564-03-16 09:50 J -12729253.27 -12729253.09 -12729252.91 0.0507 0.0294
 Saturn -39561-04-03 12:28 J -12728139.23 -12728138.98 -12728138.73 0.0282 0.0005
 Jupiter -39558-09-23 12:57 J -12726871.16 -12726870.96 -12726870.75 0.0525 0.0284
 Uranus -39555-04-05 17:45 J -12725945.87 -12725945.76 -12725945.61 0.0146 0.0124
 Uranus -39554-04-10 16:04 J -12725576.08 -12725575.83 -12725575.57 0.0146 0.0032
 Mars -39554-08-27 03:35 J -12725437.43 -12725437.35 -12725437.28 0.1649 0.1488
 Jupiter -39552-03-20 19:26 J -12724865.90 -12724865.69 -12724865.47 0.0504 0.0212
 Saturn -39547-10-06 10:18 J -12722840.30 -12722840.07 -12722839.83 0.0277 0.0008
 Neptune -39546-09-04 08:38 J -12722507.25 -12722507.14 -12722506.99 0.0088 0.0076
 Neptune -39545-09-06 03:35 J -12722139.57 -12722139.35 -12722139.10 0.0088 0.0037
 Neptune -39544-09-08 08:52 J -12721772.38 -12721772.13 -12721771.87 0.0088 0.0002
 Neptune -39543-09-11 03:06 J -12721404.60 -12721404.37 -12721404.12 0.0088 0.0039
 Neptune -39542-09-13 09:21 J -12721037.23 -12721037.11 -12721036.94 0.0088 0.0072
 Saturn -39532-03-28 13:26 J -12717553.10 -12717552.94 -12717552.78 0.0282 0.0207
 Saturn -39531-04-11 00:28 J -12717174.63 -12717174.48 -12717174.32 0.0282 0.0216
 Saturn -39518-10-01 06:28 J -12712253.40 -12712253.23 -12712253.04 0.0278 0.0193
 Saturn -39517-10-13 00:42 J -12711875.61 -12711875.47 -12711875.31 0.0277 0.0221
 Uranus -39514-10-10 23:02 J -12710782.78 -12710782.54 -12710782.29 0.0132 0.0041
 Uranus -39513-10-14 10:04 J -12710413.31 -12710413.08 -12710412.86 0.0132 0.0057
 Pluto -39505-10-17 07:40 J -12707488.27 -12707488.18 -12707488.03 0.0078 0.0070
 Pluto -39504-10-19 05:16 J -12707121.39 -12707121.28 -12707121.10 0.0078 0.0065
 Saturn -39502-04-05 14:38 J -12706588.14 -12706587.89 -12706587.64 0.0282 0.0035
 Saturn -39488-10-07 20:38 J -12701288.88 -12701288.64 -12701288.40 0.0277 0.0037
 Jupiter -39487-09-17 17:30 J -12700943.92 -12700943.77 -12700943.61 0.0522 0.0399
 Jupiter -39481-03-15 12:28 J -12698938.15 -12698937.98 -12698937.81 0.0507 0.0360

Jupiter -39475-09-22 15:50 J -12696556.05 -12696555.84 -12696555.63 0.0524 0.0216
 Saturn -39473-03-30 00:28 J -12696001.66 -12696001.48 -12696001.28 0.0282 0.0165
 Saturn -39472-04-12 07:54 J -12695623.25 -12695623.17 -12695623.06 0.0282 0.0259
 Uranus -39471-04-06 05:30 J -12695264.44 -12695264.27 -12695264.09 0.0146 0.0104
 Uranus -39470-04-11 03:06 J -12694894.63 -12694894.37 -12694894.11 0.0146 0.0024
 Jupiter -39469-03-20 02:23 J -12694550.62 -12694550.40 -12694550.18 0.0504 0.0131
 Neptune -39463-03-05 00:28 J -12692374.68 -12692374.48 -12692374.24 0.0089 0.0045
 Neptune -39462-03-07 05:59 J -12692007.49 -12692007.25 -12692006.99 0.0089 0.0014
 Neptune -39461-03-08 22:04 J -12691639.82 -12691639.58 -12691639.32 0.0089 0.0030
 Neptune -39460-03-11 06:57 J -12691272.38 -12691272.21 -12691272.02 0.0089 0.0061
 Saturn -39459-10-02 06:42 J -12690702.42 -12690702.22 -12690702.00 0.0278 0.0151
 Saturn -39458-10-15 05:16 J -12690324.34 -12690324.28 -12690324.19 0.0277 0.0262
 Saturn -39443-04-06 22:04 J -12685036.81 -12685036.58 -12685036.34 0.0282 0.0082
 Mars -39434-02-19 16:04 J -12681795.97 -12681795.83 -12681795.69 0.1868 0.1146
 Uranus -39430-10-11 11:02 J -12680101.28 -12680101.04 -12680100.79 0.0132 0.0043
 Saturn -39429-10-09 03:35 J -12679737.59 -12679737.35 -12679737.11 0.0277 0.0081
 Uranus -39429-10-14 23:02 J -12679731.75 -12679731.54 -12679731.32 0.0132 0.0067
 Mars -39428-08-22 13:54 J -12679420.07 -12679419.92 -12679419.77 0.1659 0.1122
 Saturn -39414-04-01 11:02 J -12674450.26 -12674450.04 -12674449.81 0.0281 0.0119
 Jupiter -39404-09-16 19:26 J -12670628.78 -12670628.69 -12670628.59 0.0521 0.0470
 Saturn -39400-10-03 14:38 J -12669151.11 -12669150.89 -12669150.67 0.0278 0.0107
 Jupiter -39398-03-15 14:23 J -12668622.98 -12668622.90 -12668622.80 0.0508 0.0460
 Jupiter -39392-09-21 23:16 J -12666240.76 -12666240.53 -12666240.30 0.0523 0.0124
 Uranus -39387-04-06 17:45 J -12664582.92 -12664582.76 -12664582.58 0.0146 0.0108
 Jupiter -39386-03-20 05:45 J -12664235.50 -12664235.26 -12664235.02 0.0506 0.0030
 Uranus -39386-04-11 14:38 J -12664213.13 -12664212.89 -12664212.64 0.0146 0.0047
 Saturn -39384-04-08 11:45 J -12663485.21 -12663485.01 -12663484.79 0.0282 0.0129
 Neptune -39381-09-05 02:38 J -12662239.58 -12662239.39 -12662239.18 0.0088 0.0054
 Neptune -39380-09-07 20:38 J -12661871.89 -12661871.64 -12661871.38 0.0088 0.0025
 Neptune -39379-09-10 04:04 J -12661504.57 -12661504.33 -12661504.08 0.0088 0.0020

Neptune -39378-09-12 18:14 J -12661136.96 -12661136.74 -12661136.51 0.0088 0.0048
 Jupiter -39374-03-24 14:09 J -12659847.95 -12659847.91 -12659847.87 0.0503 0.0493
 Saturn -39370-10-11 07:26 J -12658186.41 -12658186.19 -12658185.95 0.0277 0.0125
 Mars -39355-02-22 07:11 J -12652938.35 -12652938.20 -12652938.04 0.1872 0.1032
 Saturn -39355-04-02 18:14 J -12652898.99 -12652898.74 -12652898.50 0.0282 0.0073
 Mars -39349-08-25 05:45 J -12650562.45 -12650562.26 -12650562.08 0.1656 0.0665
 Uranus -39346-10-11 23:30 J -12649419.77 -12649419.52 -12649419.27 0.0132 0.0025
 Uranus -39345-10-15 11:30 J -12649050.22 -12649050.02 -12649049.80 0.0132 0.0071
 Pluto -39344-04-16 00:14 J -12648867.63 -12648867.49 -12648867.30 0.0066 0.0049
 Pluto -39343-04-17 12:14 J -12648501.19 -12648500.99 -12648500.74 0.0066 0.0036
 Saturn -39341-10-05 02:23 J -12647599.63 -12647599.40 -12647599.16 0.0278 0.0063
 Saturn -39326-03-28 18:42 J -12642311.83 -12642311.72 -12642311.61 0.0281 0.0247
 Saturn -39325-04-10 02:52 J -12641933.56 -12641933.38 -12641933.18 0.0282 0.0178
 Saturn -39312-09-29 19:26 J -12637012.80 -12637012.69 -12637012.56 0.0278 0.0243
 Saturn -39311-10-12 15:50 J -12636635.03 -12636634.84 -12636634.65 0.0277 0.0173
 Jupiter -39309-09-20 12:57 J -12635926.19 -12635925.96 -12635925.72 0.0523 0.0013
 Jupiter -39303-03-19 05:59 J -12633920.48 -12633920.25 -12633920.03 0.0506 0.0050
 Uranus -39303-04-07 05:16 J -12633901.47 -12633901.28 -12633901.08 0.0146 0.0088
 Uranus -39302-04-12 01:40 J -12633531.67 -12633531.43 -12633531.18 0.0146 0.0038
 Neptune -39299-03-04 02:09 J -12632474.56 -12632474.41 -12632474.27 0.0089 0.0072
 Neptune -39298-03-06 16:47 J -12632107.04 -12632106.80 -12632106.54 0.0089 0.0029
 Neptune -39297-03-08 02:38 J -12631739.64 -12631739.39 -12631739.14 0.0089 0.0003
 Neptune -39296-03-10 12:28 J -12631372.20 -12631371.98 -12631371.74 0.0089 0.0045
 Saturn -39296-04-04 02:52 J -12631347.63 -12631347.38 -12631347.14 0.0282 0.0026
 Neptune -39295-03-13 02:52 J -12631004.47 -12631004.38 -12631004.24 0.0089 0.0079
 Jupiter -39291-03-24 01:11 J -12629532.58 -12629532.45 -12629532.31 0.0504 0.0411
 Saturn -39282-10-07 13:40 J -12626048.17 -12626047.93 -12626047.68 0.0278 0.0014
 Saturn -39267-03-30 08:38 J -12620760.30 -12620760.14 -12620759.96 0.0281 0.0197
 Saturn -39266-04-12 13:11 J -12620382.09 -12620381.95 -12620381.79 0.0282 0.0227
 Uranus -39263-10-08 11:30 J -12619107.11 -12619107.02 -12619106.92 0.0133 0.0122

Uranus -39262-10-12 10:33 J -12618738.30 -12618738.06 -12618737.80 0.0132 0.0030
 Uranus -39261-10-15 23:30 J -12618368.71 -12618368.52 -12618368.32 0.0132 0.0083
 Pluto -39257-10-20 01:54 J -12616903.68 -12616903.42 -12616903.15 0.0078 0.0010
 Saturn -39253-10-01 04:18 J -12615461.50 -12615461.32 -12615461.15 0.0278 0.0192
 Saturn -39252-10-14 05:02 J -12615083.42 -12615083.29 -12615083.14 0.0277 0.0221
 Saturn -39237-04-05 16:47 J -12609796.03 -12609795.80 -12609795.56 0.0282 0.0028
 Jupiter -39226-09-21 00:57 J -12605610.69 -12605610.46 -12605610.24 0.0522 0.0076
 Saturn -39223-10-08 21:21 J -12604496.86 -12604496.61 -12604496.36 0.0277 0.0034
 Jupiter -39220-03-18 12:42 J -12603605.19 -12603604.97 -12603604.75 0.0507 0.0154
 Uranus -39219-04-07 17:30 J -12603219.96 -12603219.77 -12603219.57 0.0146 0.0093
 Uranus -39218-04-12 13:11 J -12602850.17 -12602849.95 -12602849.71 0.0146 0.0061
 Neptune -39217-09-04 15:50 J -12602338.94 -12602338.84 -12602338.70 0.0088 0.0078
 Neptune -39216-09-07 00:14 J -12601971.69 -12601971.49 -12601971.25 0.0088 0.0041
 Neptune -39215-09-09 13:40 J -12601604.20 -12601603.93 -12601603.66 0.0088 0.0004
 Neptune -39214-09-12 02:38 J -12601236.62 -12601236.39 -12601236.16 0.0088 0.0035
 Jupiter -39214-09-25 17:16 J -12601222.90 -12601222.78 -12601222.66 0.0524 0.0450
 Neptune -39213-09-13 10:04 J -12600869.21 -12600869.08 -12600868.90 0.0088 0.0071
 Jupiter -39208-03-22 16:47 J -12599217.98 -12599217.80 -12599217.61 0.0505 0.0307
 Saturn -39208-03-31 17:30 J -12599208.97 -12599208.77 -12599208.54 0.0281 0.0148
 Saturn -39207-04-13 19:11 J -12598830.73 -12598830.70 -12598830.63 0.0282 0.0275
 Saturn -39194-10-03 17:45 J -12593909.96 -12593909.76 -12593909.55 0.0277 0.0142
 Saturn -39193-10-15 19:40 J -12593531.72 -12593531.68 -12593531.63 0.0277 0.0271
 Uranus -39179-10-08 23:30 J -12588425.57 -12588425.52 -12588425.45 0.0133 0.0128
 Saturn -39178-04-08 07:40 J -12588244.40 -12588244.18 -12588243.95 0.0282 0.0077
 Uranus -39178-10-12 22:47 J -12588056.80 -12588056.55 -12588056.30 0.0132 0.0011
 Uranus -39177-10-16 11:30 J -12587687.21 -12587687.02 -12587686.82 0.0132 0.0085
 Saturn -39164-10-10 02:52 J -12582945.62 -12582945.38 -12582945.14 0.0277 0.0084
 Saturn -39149-04-01 22:33 J -12577657.79 -12577657.56 -12577657.32 0.0281 0.0102
 Mars -39144-08-23 12:28 J -12575688.12 -12575687.98 -12575687.83 0.1664 0.1027
 Jupiter -39143-09-19 13:26 J -12575296.16 -12575295.94 -12575295.72 0.0521 0.0206

Jupiter -39137-03-17 09:50 J -12573290.30 -12573290.09 -12573289.88 0.0508 0.0235
 Uranus -39135-04-08 04:33 J -12572538.52 -12572538.31 -12572538.08 0.0146 0.0073
 Saturn -39135-10-05 08:52 J -12572358.35 -12572358.13 -12572357.90 0.0277 0.0092
 Neptune -39134-03-05 22:33 J -12572206.74 -12572206.56 -12572206.33 0.0089 0.0049
 Uranus -39134-04-13 00:14 J -12572168.72 -12572168.49 -12572168.25 0.0146 0.0053
 Neptune -39133-03-07 08:38 J -12571839.40 -12571839.14 -12571838.88 0.0089 0.0019
 Neptune -39132-03-09 23:30 J -12571471.74 -12571471.52 -12571471.26 0.0089 0.0029
 Neptune -39131-03-12 05:02 J -12571104.47 -12571104.29 -12571104.07 0.0089 0.0058
 Jupiter -39131-09-24 15:35 J -12570908.02 -12570907.85 -12570907.67 0.0523 0.0321
 Jupiter -39125-03-22 06:14 J -12568902.43 -12568902.24 -12568902.03 0.0505 0.0244
 Saturn -39119-04-09 18:14 J -12566692.95 -12566692.74 -12566692.51 0.0282 0.0127
 Saturn -39105-10-11 11:45 J -12561394.21 -12561394.01 -12561393.79 0.0277 0.0132
 Pluto -39096-04-18 11:16 J -12558283.30 -12558283.03 -12558282.76 0.0066 0.0003
 Uranus -39095-10-09 09:35 J -12557744.23 -12557744.10 -12557743.93 0.0133 0.0109
 Uranus -39094-10-13 09:21 J -12557375.36 -12557375.11 -12557374.86 0.0132 0.0016
 Uranus -39093-10-16 22:04 J -12557005.74 -12557005.58 -12557005.39 0.0132 0.0096
 Saturn -39090-04-04 04:04 J -12556106.57 -12556106.33 -12556106.09 0.0281 0.0058
 Saturn -39076-10-06 18:28 J -12550806.97 -12550806.73 -12550806.48 0.0277 0.0044
 Mars -39071-02-22 14:23 J -12549207.08 -12549206.90 -12549206.73 0.1865 0.0604
 Mars -39065-08-25 17:16 J -12546830.95 -12546830.78 -12546830.60 0.1661 0.0768
 Saturn -39061-03-28 20:38 J -12545519.73 -12545519.64 -12545519.53 0.0281 0.0256
 Saturn -39060-04-10 22:18 J -12545141.77 -12545141.57 -12545141.36 0.0282 0.0170
 Jupiter -39060-09-18 20:09 J -12544980.84 -12544980.66 -12544980.47 0.0521 0.0299
 Jupiter -39054-03-17 23:02 J -12542974.71 -12542974.54 -12542974.35 0.0508 0.0312
 Neptune -39052-09-06 08:38 J -12542071.34 -12542071.14 -12542070.92 0.0088 0.0056
 Uranus -39051-04-08 15:21 J -12541857.06 -12541856.86 -12541856.63 0.0146 0.0078
 Neptune -39051-09-08 22:47 J -12541703.78 -12541703.55 -12541703.30 0.0088 0.0027
 Uranus -39050-04-13 10:47 J -12541487.25 -12541487.05 -12541486.82 0.0146 0.0076
 Neptune -39050-09-11 06:42 J -12541336.47 -12541336.22 -12541335.95 0.0088 0.0019
 Neptune -39049-09-13 00:42 J -12540968.68 -12540968.47 -12540968.25 0.0088 0.0048

Jupiter -39048-09-23 22:18 J -12540592.78 -12540592.57 -12540592.35 0.0523 0.0236
 Saturn -39047-09-30 21:21 J -12540220.72 -12540220.61 -12540220.49 0.0277 0.0241
 Saturn -39046-10-14 00:14 J -12539842.67 -12539842.49 -12539842.30 0.0277 0.0176
 Jupiter -39042-03-22 05:30 J -12538587.49 -12538587.27 -12538587.03 0.0505 0.0155
 Saturn -39031-04-05 12:28 J -12534555.22 -12534554.98 -12534554.74 0.0282 0.0020
 Saturn -39017-10-07 22:04 J -12529255.84 -12529255.58 -12529255.33 0.0277 0.0002
 Uranus -39011-10-09 21:06 J -12527062.73 -12527062.62 -12527062.49 0.0133 0.0116
 Uranus -39010-10-13 20:38 J -12526693.89 -12526693.64 -12526693.39 0.0132 0.0002
 Pluto -39010-10-21 17:59 J -12526685.95 -12526685.75 -12526685.50 0.0078 0.0044
 Uranus -39009-10-17 08:52 J -12526324.29 -12526324.13 -12526323.94 0.0132 0.0096
 Saturn -39002-03-30 21:06 J -12523968.77 -12523968.62 -12523968.45 0.0281 0.0219
 Saturn -39001-04-11 23:30 J -12523590.68 -12523590.52 -12523590.35 0.0282 0.0209

39TH MILLENNIUM BCE

This is a list of transits of Moon in the 39th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-38988-10-02 08:09 J	-12518669.31	-12518669.16	-12518668.98	0.0277	0.0199		
Saturn	-38987-10-15 09:06 J	-12518291.26	-12518291.12	-12518290.96	0.0277	0.0218		
Jupiter	-38977-09-18 02:38 J	-12514665.56	-12514665.39	-12514665.22	0.0520	0.0373		
Saturn	-38972-04-06 18:28 J	-12513003.97	-12513003.73	-12513003.48	0.0282	0.0015		
Jupiter	-38971-03-16 22:18 J	-12512659.70	-12512659.57	-12512659.42	0.0508	0.0407		
Neptune	-38970-03-05 04:33 J	-12512306.44	-12512306.31	-12512306.15	0.0089	0.0074		
Neptune	-38969-03-06 20:52 J	-12511938.86	-12511938.63	-12511938.40	0.0089	0.0032		

Neptune -38968-03-09 02:09 J -12511571.67 -12511571.41 -12511571.15 0.0089 0.0002
 Neptune -38967-03-11 20:23 J -12511203.87 -12511203.65 -12511203.42 0.0089 0.0044
 Uranus -38967-04-09 01:11 J -12511175.67 -12511175.45 -12511175.20 0.0146 0.0061
 Neptune -38966-03-14 00:42 J -12510836.58 -12510836.47 -12510836.33 0.0089 0.0078
 Uranus -38966-04-13 20:38 J -12510805.85 -12510805.64 -12510805.40 0.0146 0.0066
 Jupiter -38965-09-22 17:30 J -12510277.99 -12510277.77 -12510277.55 0.0522 0.0128
 Jupiter -38959-03-21 12:57 J -12508272.18 -12508271.96 -12508271.74 0.0507 0.0091
 Saturn -38958-10-10 01:40 J -12507704.67 -12507704.43 -12507704.19 0.0277 0.0041
 Saturn -38943-03-31 21:35 J -12502417.77 -12502417.60 -12502417.41 0.0281 0.0185
 Saturn -38942-04-14 04:47 J -12502039.41 -12502039.30 -12502039.19 0.0282 0.0248
 Saturn -38929-10-03 15:35 J -12497118.04 -12497117.85 -12497117.63 0.0277 0.0156
 Saturn -38928-10-16 10:47 J -12496740.13 -12496740.05 -12496739.94 0.0277 0.0256
 Uranus -38927-10-10 05:45 J -12496381.41 -12496381.26 -12496381.06 0.0133 0.0098
 Uranus -38926-10-14 05:59 J -12496012.50 -12496012.25 -12496011.99 0.0132 0.0006
 Uranus -38925-10-17 18:14 J -12495642.87 -12495642.74 -12495642.57 0.0132 0.0108
 Saturn -38913-04-07 16:47 J -12491453.05 -12491452.80 -12491452.55 0.0282 0.0049
 Saturn -38899-10-11 08:23 J -12486153.38 -12486153.15 -12486152.92 0.0278 0.0080
 Jupiter -38894-09-17 23:45 J -12484350.60 -12484350.51 -12484350.42 0.0519 0.0473
 Jupiter -38888-03-16 07:26 J -12482344.26 -12482344.19 -12482344.11 0.0509 0.0476
 Neptune -38888-09-05 20:38 J -12482170.73 -12482170.64 -12482170.50 0.0088 0.0078
 Neptune -38887-09-08 03:21 J -12481803.57 -12481803.36 -12481803.11 0.0088 0.0042
 Neptune -38886-09-10 22:04 J -12481435.84 -12481435.58 -12481435.33 0.0088 0.0004
 Neptune -38885-09-12 02:23 J -12481068.63 -12481068.40 -12481068.15 0.0088 0.0034
 Saturn -38884-04-02 01:54 J -12480866.62 -12480866.42 -12480866.22 0.0281 0.0148
 Neptune -38884-09-14 20:52 J -12480700.76 -12480700.63 -12480700.45 0.0088 0.0071
 Uranus -38883-04-09 10:47 J -12480494.27 -12480494.05 -12480493.81 0.0146 0.0066
 Uranus -38882-04-14 06:28 J -12480124.42 -12480124.23 -12480124.02 0.0146 0.0085
 Jupiter -38882-09-23 04:18 J -12479962.56 -12479962.32 -12479962.09 0.0522 0.0047
 Jupiter -38876-03-21 02:09 J -12477956.65 -12477956.41 -12477956.17 0.0507 0.0039
 Saturn -38870-10-05 17:16 J -12475567.01 -12475566.78 -12475566.55 0.0277 0.0117

Mars -38860-08-24 19:40 J -12471955.84 -12471955.68 -12471955.51 0.1669 0.0766
 Saturn -38854-04-09 12:14 J -12469902.23 -12469901.99 -12469901.75 0.0282 0.0081
 Pluto -38849-04-19 04:47 J -12468065.44 -12468065.30 -12468065.12 0.0066 0.0052
 Pluto -38848-04-20 18:57 J -12467698.91 -12467698.71 -12467698.47 0.0066 0.0034
 Uranus -38843-10-10 16:33 J -12465699.95 -12465699.81 -12465699.65 0.0133 0.0106
 Uranus -38842-10-14 16:47 J -12465331.05 -12465330.80 -12465330.55 0.0133 0.0011
 Uranus -38841-10-18 04:04 J -12464961.46 -12464961.33 -12464961.15 0.0132 0.0106
 Saturn -38840-10-12 14:38 J -12464602.10 -12464601.89 -12464601.66 0.0278 0.0118
 Saturn -38825-04-03 06:42 J -12459315.43 -12459315.22 -12459315.00 0.0281 0.0114
 Saturn -38811-10-06 15:50 J -12454016.07 -12454015.84 -12454015.59 0.0278 0.0081
 Neptune -38805-03-05 23:16 J -12452038.72 -12452038.53 -12452038.30 0.0089 0.0050
 Neptune -38804-03-08 18:14 J -12451670.99 -12451670.74 -12451670.49 0.0089 0.0020
 Neptune -38803-03-10 22:47 J -12451303.77 -12451303.55 -12451303.29 0.0089 0.0027
 Neptune -38802-03-13 15:21 J -12450936.04 -12450935.86 -12450935.64 0.0089 0.0057
 Uranus -38799-04-09 19:40 J -12449812.91 -12449812.68 -12449812.43 0.0146 0.0052
 Jupiter -38799-09-22 05:59 J -12449647.48 -12449647.25 -12449647.01 0.0521 0.0021
 Uranus -38798-04-14 15:50 J -12449443.04 -12449442.84 -12449442.62 0.0146 0.0076
 Saturn -38795-04-10 11:59 J -12448351.21 -12448351.00 -12448350.78 0.0281 0.0115
 Jupiter -38793-03-20 02:52 J -12447641.60 -12447641.38 -12447641.15 0.0507 0.0033
 Mars -38787-02-21 23:16 J -12445476.74 -12445476.53 -12445476.32 0.1856 0.0329
 Saturn -38782-10-01 16:33 J -12443428.86 -12443428.81 -12443428.74 0.0279 0.0270
 Mars -38781-08-26 20:38 J -12443098.78 -12443098.64 -12443098.49 0.1666 0.1007
 Saturn -38781-10-13 16:47 J -12443051.01 -12443050.80 -12443050.59 0.0278 0.0152
 Saturn -38766-04-05 08:23 J -12437764.38 -12437764.15 -12437763.90 0.0281 0.0079
 Pluto -38762-10-24 09:06 J -12436101.37 -12436101.12 -12436100.87 0.0078 0.0012
 Uranus -38759-10-11 00:42 J -12435018.66 -12435018.47 -12435018.27 0.0133 0.0088
 Uranus -38758-10-15 01:40 J -12434649.68 -12434649.43 -12434649.18 0.0133 0.0003
 Uranus -38757-10-18 12:42 J -12434280.08 -12434279.97 -12434279.83 0.0132 0.0117
 Saturn -38752-10-07 18:57 J -12432464.94 -12432464.71 -12432464.47 0.0278 0.0046
 Saturn -38736-04-11 16:04 J -12426800.02 -12426799.83 -12426799.62 0.0281 0.0151

Neptune -38723-09-07 20:38 J -12421902.85 -12421902.64 -12421902.44 0.0088 0.0055
 Saturn -38723-10-02 17:02 J -12421877.91 -12421877.79 -12421877.65 0.0279 0.0236
 Neptune -38722-09-10 00:57 J -12421535.69 -12421535.46 -12421535.20 0.0088 0.0027
 Saturn -38722-10-15 13:40 J -12421500.11 -12421499.93 -12421499.73 0.0278 0.0184
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 Neptune -38720-09-14 02:09 J -12420800.61 -12420800.41 -12420800.19 0.0088 0.0049
 Jupiter -38716-09-21 15:50 J -12419332.07 -12419331.84 -12419331.62 0.0520 0.0105
 Uranus -38715-04-10 04:47 J -12419131.53 -12419131.30 -12419131.05 0.0146 0.0056
 Uranus -38714-04-15 01:40 J -12418761.61 -12418761.43 -12418761.23 0.0146 0.0094
 Jupiter -38710-03-20 16:47 J -12417326.03 -12417325.80 -12417325.57 0.0509 0.0086
 Saturn -38707-04-06 06:14 J -12416213.49 -12416213.24 -12416212.99 0.0280 0.0044
 Jupiter -38704-09-26 08:38 J -12414944.24 -12414944.14 -12414944.04 0.0522 0.0473
 Jupiter -38698-03-25 01:11 J -12412938.53 -12412938.45 -12412938.35 0.0506 0.0467
 Saturn -38693-10-09 02:23 J -12410913.64 -12410913.40 -12410913.16 0.0278 0.0012
 Saturn -38678-03-31 14:23 J -12405626.99 -12405626.90 -12405626.79 0.0280 0.0253
 Saturn -38677-04-12 20:09 J -12405248.83 -12405248.66 -12405248.47 0.0281 0.0186
 Uranus -38675-10-11 09:50 J -12404337.24 -12404337.09 -12404336.89 0.0133 0.0098
 Uranus -38674-10-15 11:45 J -12403968.25 -12403968.01 -12403967.76 0.0133 0.0020
 Uranus -38673-10-18 21:50 J -12403598.70 -12403598.59 -12403598.43 0.0132 0.0113
 Saturn -38664-10-03 14:09 J -12400327.08 -12400326.91 -12400326.73 0.0279 0.0204
 Saturn -38663-10-16 13:40 J -12399949.07 -12399948.93 -12399948.77 0.0278 0.0217
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 Neptune -38637-03-14 10:33 J -12390668.18 -12390668.06 -12390667.93 0.0089 0.0079
 Saturn -38634-10-11 07:26 J -12389362.44 -12389362.19 -12389361.94 0.0278 0.0025
 Jupiter -38633-09-20 16:04 J -12389017.06 -12389016.83 -12389016.60 0.0520 0.0187
 Uranus -38631-04-10 13:40 J -12388450.17 -12388449.93 -12388449.67 0.0146 0.0043

Uranus -38630-04-15 11:30 J -12388080.22 -12388080.02 -12388079.82 0.0146 0.0086
 Jupiter -38627-03-19 18:14 J -12387010.96 -12387010.74 -12387010.51 0.0509 0.0142
 Jupiter -38621-09-25 18:28 J -12384628.86 -12384628.73 -12384628.59 0.0522 0.0418
 Saturn -38619-04-01 19:54 J -12384075.81 -12384075.67 -12384075.50 0.0280 0.0214
 Saturn -38618-04-14 20:38 J -12383697.78 -12383697.64 -12383697.48 0.0281 0.0225
 Jupiter -38615-03-24 12:42 J -12382623.11 -12382622.97 -12382622.84 0.0506 0.0404
 Saturn -38605-10-04 15:50 J -12378776.03 -12378775.84 -12378775.64 0.0279 0.0167
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 Pluto -38601-04-21 07:54 J -12377481.41 -12377481.17 -12377480.94 0.0066 0.0025
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 Uranus -38591-10-11 17:02 J -12373655.98 -12373655.79 -12373655.56 0.0133 0.0081
 Uranus -38590-10-15 20:09 J -12373286.90 -12373286.66 -12373286.41 0.0133 0.0011
 Saturn -38589-04-08 15:50 J -12373111.08 -12373110.84 -12373110.61 0.0280 0.0037
 Uranus -38589-10-19 05:59 J -12372917.33 -12372917.25 -12372917.16 0.0133 0.0125
 Mars -38576-08-25 10:04 J -12368224.26 -12368224.08 -12368223.89 0.1675 0.0761
 Saturn -38575-10-12 08:52 J -12367811.38 -12367811.13 -12367810.88 0.0278 0.0064
 Saturn -38560-04-02 22:18 J -12362524.76 -12362524.57 -12362524.35 0.0280 0.0170
 Saturn -38559-04-15 22:04 J -12362146.63 -12362146.58 -12362146.50 0.0281 0.0269
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 Neptune -38558-09-09 17:59 J -12361634.98 -12361634.75 -12361634.50 0.0088 0.0039
 Neptune -38557-09-11 00:42 J -12361267.72 -12361267.47 -12361267.21 0.0088 0.0002
 Neptune -38556-09-13 15:06 J -12360900.10 -12360899.87 -12360899.61 0.0088 0.0036
 Neptune -38555-09-16 02:23 J -12360532.51 -12360532.40 -12360532.25 0.0088 0.0075
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 Uranus -38547-04-10 22:47 J -12357768.80 -12357768.55 -12357768.30 0.0146 0.0044
 Uranus -38546-04-15 21:21 J -12357398.77 -12357398.61 -12357398.43 0.0146 0.0104
 Saturn -38546-10-06 23:30 J -12357224.73 -12357224.52 -12357224.31 0.0279 0.0128
 Jupiter -38544-03-19 00:57 J -12356695.66 -12356695.46 -12356695.26 0.0510 0.0228
 Jupiter -38538-09-25 22:18 J -12354313.75 -12354313.57 -12354313.38 0.0521 0.0330
 Jupiter -38532-03-23 12:42 J -12352308.16 -12352307.97 -12352307.78 0.0508 0.0315

Saturn -38530-04-11 02:52 J -12351559.60 -12351559.38 -12351559.14 0.0280 0.0084
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 Pluto -38515-10-24 13:40 J -12345884.02 -12345883.93 -12345883.79 0.0078 0.0069
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 Uranus -38506-10-16 06:14 J -12342605.48 -12342605.24 -12342604.99 0.0133 0.0028
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 Mars -38503-02-21 11:59 J -12341746.14 -12341746.00 -12341745.85 0.1847 0.1080
 Saturn -38501-04-04 03:06 J -12340973.58 -12340973.37 -12340973.14 0.0280 0.0125
 Mars -38497-08-28 00:42 J -12339366.60 -12339366.47 -12339366.34 0.1672 0.1222
 Saturn -38487-10-08 09:06 J -12335673.35 -12335673.12 -12335672.89 0.0279 0.0084
 Neptune -38476-03-07 12:28 J -12331870.18 -12331869.98 -12331869.74 0.0089 0.0049
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 Neptune -38474-03-12 08:23 J -12331135.38 -12331135.15 -12331134.88 0.0089 0.0028
 Neptune -38473-03-13 22:33 J -12330767.73 -12330767.56 -12330767.36 0.0089 0.0058
 Saturn -38471-04-12 11:02 J -12330008.25 -12330008.04 -12330007.81 0.0280 0.0134
 Jupiter -38467-09-19 23:16 J -12328386.69 -12328386.53 -12328386.35 0.0518 0.0365
 Uranus -38463-04-11 06:28 J -12327087.48 -12327087.23 -12327086.97 0.0146 0.0035
 Uranus -38462-04-16 06:14 J -12326717.41 -12326717.24 -12326717.04 0.0146 0.0097
 Jupiter -38461-03-18 04:33 J -12326380.50 -12326380.31 -12326380.11 0.0511 0.0299
 Saturn -38458-10-02 17:59 J -12325086.80 -12325086.75 -12325086.70 0.0279 0.0272
 Saturn -38457-10-14 21:21 J -12324708.80 -12324708.61 -12324708.40 0.0278 0.0154
 Jupiter -38455-09-24 17:59 J -12323998.95 -12323998.75 -12323998.54 0.0520 0.0231
 Jupiter -38449-03-22 18:42 J -12321992.91 -12321992.72 -12321992.52 0.0508 0.0245
 Saturn -38442-04-06 14:38 J -12319422.12 -12319421.89 -12319421.66 0.0280 0.0073
 Saturn -38428-10-09 15:50 J -12314122.09 -12314121.84 -12314121.59 0.0279 0.0039
 Mars -38424-02-24 11:30 J -12312888.19 -12312888.02 -12312887.84 0.1852 0.0970
 Uranus -38423-10-12 08:52 J -12312293.34 -12312293.13 -12312292.90 0.0133 0.0074
 Uranus -38422-10-16 14:23 J -12311924.14 -12311923.90 -12311923.65 0.0133 0.0018
 Saturn -38413-03-31 20:09 J -12308834.75 -12308834.66 -12308834.54 0.0279 0.0252

Saturn -38412-04-13 17:30 J -12308456.94 -12308456.77 -12308456.57 0.0280 0.0188
 Saturn -38399-10-04 05:59 J -12303535.38 -12303535.25 -12303535.10 0.0279 0.0226
 Saturn -38398-10-17 11:45 J -12303157.17 -12303157.01 -12303156.84 0.0278 0.0201
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 Neptune -38393-09-10 14:52 J -12301367.13 -12301366.88 -12301366.61 0.0088 0.0023
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 Saturn -38383-04-08 05:45 J -12297870.49 -12297870.26 -12297870.02 0.0280 0.0020
 Uranus -38379-04-11 14:23 J -12296406.14 -12296405.90 -12296405.63 0.0146 0.0035
 Jupiter -38378-03-18 07:54 J -12296065.31 -12296065.17 -12296065.02 0.0511 0.0383
 Uranus -38378-04-16 15:35 J -12296036.00 -12296035.85 -12296035.68 0.0146 0.0111
 Jupiter -38372-09-24 05:02 J -12293683.51 -12293683.29 -12293683.06 0.0520 0.0163
 Saturn -38369-10-10 20:09 J -12292570.91 -12292570.66 -12292570.41 0.0279 0.0006
 Jupiter -38366-03-22 21:21 J -12291677.84 -12291677.61 -12291677.38 0.0509 0.0136
 Saturn -38354-04-03 03:06 J -12287283.54 -12287283.37 -12287283.19 0.0280 0.0201
 Saturn -38353-04-15 03:06 J -12286905.48 -12286905.37 -12286905.23 0.0280 0.0240
 Pluto -38353-04-23 08:23 J -12286897.41 -12286897.15 -12286896.88 0.0066 0.0006
 Saturn -38340-10-05 21:21 J -12281983.78 -12281983.61 -12281983.41 0.0279 0.0177
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 Saturn -38339-10-19 00:14 J -12281605.59 -12281605.49 -12281605.37 0.0278 0.0250
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 Neptune -38309-03-13 04:47 J -12270867.51 -12270867.30 -12270867.06 0.0089 0.0046
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 Saturn -38295-04-04 11:02 J -12265732.23 -12265732.04 -12265731.83 0.0280 0.0151
 Uranus -38295-04-11 21:35 J -12265724.86 -12265724.60 -12265724.34 0.0146 0.0030
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 Mars -38292-08-25 22:04 J -12264492.75 -12264492.58 -12264492.42 0.1681 0.0841
 Jupiter -38289-09-22 16:47 J -12263369.03 -12263368.80 -12263368.56 0.0519 0.0036
 Jupiter -38283-03-21 19:26 J -12261362.92 -12261362.69 -12261362.46 0.0510 0.0050
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 Saturn -38265-04-11 04:33 J -12254767.55 -12254767.31 -12254767.07 0.0280 0.0088
 Uranus -38255-10-12 23:59 J -12250930.72 -12250930.50 -12250930.26 0.0133 0.0068
 Uranus -38254-10-17 08:23 J -12250561.40 -12250561.15 -12250560.91 0.0133 0.0024
 Saturn -38251-10-14 19:11 J -12249467.92 -12249467.70 -12249467.48 0.0279 0.0105
 Saturn -38236-04-05 23:45 J -12244180.73 -12244180.51 -12244180.29 0.0280 0.0099
 Neptune -38230-09-08 12:57 J -12241834.11 -12241833.96 -12241833.80 0.0088 0.0073
 Neptune -38229-09-10 01:54 J -12241466.64 -12241466.42 -12241466.18 0.0088 0.0037
 Neptune -38228-09-12 10:47 J -12241099.31 -12241099.05 -12241098.78 0.0088 0.0003
 Neptune -38227-09-15 03:50 J -12240731.55 -12240731.34 -12240731.09 0.0088 0.0039
 Neptune -38226-09-17 09:21 J -12240364.22 -12240364.11 -12240363.98 0.0088 0.0078
 Saturn -38222-10-09 18:42 J -12238880.97 -12238880.72 -12238880.47 0.0279 0.0073
 Mars -38219-02-21 22:18 J -12238014.68 -12238014.57 -12238014.46 0.1839 0.1439
 Mars -38213-08-28 10:04 J -12235635.22 -12235635.08 -12235634.94 0.1678 0.1200
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 Jupiter -38206-09-23 02:09 J -12233053.63 -12233053.41 -12233053.18 0.0518 0.0053
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 Saturn -38193-10-03 01:54 J -12228294.46 -12228294.42 -12228294.37 0.0279 0.0273
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 Saturn -38134-10-05 15:21 J -12206743.00 -12206742.86 -12206742.72 0.0279 0.0225
 Saturn -38133-10-17 16:18 J -12206364.99 -12206364.82 -12206364.65 0.0278 0.0204
 Uranus -38127-04-12 12:57 J -12204362.21 -12204361.96 -12204361.69 0.0146 0.0025
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 Jupiter -38123-09-22 01:11 J -12202738.68 -12202738.45 -12202738.21 0.0518 0.0135
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 Jupiter -38111-09-26 20:52 J -12198350.76 -12198350.63 -12198350.48 0.0520 0.0404
 Jupiter -38105-03-24 21:50 J -12196344.75 -12196344.59 -12196344.42 0.0509 0.0353
 Pluto -38105-04-25 05:59 J -12196313.50 -12196313.25 -12196313.00 0.0066 0.0007
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 Uranus -38086-10-18 01:54 J -12189198.65 -12189198.42 -12189198.17 0.0133 0.0030
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 Saturn -38074-10-19 19:40 J -12184813.79 -12184813.68 -12184813.57 0.0278 0.0247

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Neptune -38063-09-14 08:38 J -12180831.37 -12180831.14 -12180830.88 0.0088 0.0028

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Saturn -38059-04-10 14:52 J -12179527.13 -12179526.88 -12179526.63 0.0280 0.0038

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Jupiter -38040-09-21 03:35 J -12172423.55 -12172423.35 -12172423.15 0.0517 0.0235

Jupiter -38034-03-20 14:38 J -12170417.09 -12170416.89 -12170416.68 0.0512 0.0197

Saturn -38030-04-05 06:42 J -12168940.40 -12168940.22 -12168940.03 0.0280 0.0168

Jupiter -38028-09-26 02:23 J -12168035.59 -12168035.40 -12168035.20 0.0519 0.0309

Jupiter -38022-03-25 04:04 J -12166029.53 -12166029.33 -12166029.13 0.0509 0.0284

Pluto -38019-10-28 18:28 J -12164715.95 -12164715.73 -12164715.48 0.0078 0.0026

Saturn -38016-10-07 23:45 J -12163640.72 -12163640.51 -12163640.29 0.0279 0.0142

Mars -38008-08-27 03:21 J -12160760.53 -12160760.36 -12160760.19 0.1687 0.0606

Uranus -38003-10-13 23:59 J -12158886.71 -12158886.50 -12158886.26 0.0133 0.0069

Uranus -38002-10-18 11:30 J -12158517.24 -12158517.02 -12158516.78 0.0133 0.0047

38TH MILLENNIUM BCE

This is a list of transits of Moon in the 38th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-38000-04-11	13:54	J	-12157976.15	-12157975.92	-12157975.69	0.0280	0.0076

Saturn -37986-10-16 05:02 J -12152675.52 -12152675.29 -12152675.06 0.0279 0.0104
 Neptune -37983-03-08 04:33 J -12151801.44 -12151801.31 -12151801.11 0.0089 0.0070
 Neptune -37982-03-10 23:02 J -12151433.76 -12151433.54 -12151433.28 0.0089 0.0031
 Neptune -37981-03-12 03:35 J -12151066.59 -12151066.35 -12151066.09 0.0089 0.0010
 Neptune -37980-03-14 20:52 J -12150698.83 -12150698.63 -12150698.39 0.0089 0.0049
 Neptune -37979-03-17 03:21 J -12150331.38 -12150331.36 -12150331.27 0.0089 0.0088
 Saturn -37971-04-06 11:02 J -12147389.25 -12147389.04 -12147388.81 0.0279 0.0129
 Uranus -37959-04-13 05:16 J -12142999.53 -12142999.28 -12142999.02 0.0146 0.0018
 Uranus -37958-04-18 11:59 J -12142629.13 -12142629.00 -12142628.86 0.0146 0.0120
 Jupiter -37957-09-20 11:30 J -12142108.21 -12142108.02 -12142107.81 0.0516 0.0297
 Saturn -37957-10-09 03:35 J -12142089.57 -12142089.35 -12142089.12 0.0279 0.0103
 Jupiter -37951-03-19 18:57 J -12140101.91 -12140101.71 -12140101.51 0.0512 0.0275
 Jupiter -37945-09-25 05:30 J -12137720.47 -12137720.27 -12137720.06 0.0519 0.0241
 Saturn -37941-04-12 17:16 J -12136425.00 -12136424.78 -12136424.57 0.0280 0.0117
 Jupiter -37939-03-24 07:54 J -12135714.37 -12135714.17 -12135713.96 0.0510 0.0203
 Mars -37929-08-29 04:33 J -12131903.42 -12131903.31 -12131903.20 0.1684 0.1326
 Saturn -37927-10-17 04:18 J -12131124.53 -12131124.32 -12131124.09 0.0279 0.0143
 Uranus -37919-10-14 07:11 J -12128205.42 -12128205.20 -12128204.95 0.0133 0.0057
 Uranus -37918-10-18 19:40 J -12127835.92 -12127835.68 -12127835.44 0.0133 0.0037
 Saturn -37912-04-07 08:23 J -12125838.39 -12125838.15 -12125837.91 0.0279 0.0087
 Neptune -37901-09-09 02:38 J -12121665.53 -12121665.39 -12121665.22 0.0088 0.0070
 Neptune -37900-09-11 07:40 J -12121298.40 -12121298.18 -12121297.93 0.0088 0.0035
 Neptune -37899-09-14 03:06 J -12120930.63 -12120930.37 -12120930.11 0.0088 0.0007
 Neptune -37898-09-16 08:38 J -12120563.34 -12120563.14 -12120562.89 0.0088 0.0044
 Saturn -37898-10-11 11:02 J -12120538.27 -12120538.04 -12120537.81 0.0279 0.0063
 Neptune -37897-09-18 01:11 J -12120195.51 -12120195.45 -12120195.33 0.0088 0.0083
 Saturn -37882-04-14 20:38 J -12114873.84 -12114873.64 -12114873.43 0.0280 0.0155
 Uranus -37875-04-13 13:26 J -12112318.19 -12112317.94 -12112317.68 0.0146 0.0009
 Uranus -37874-04-18 20:38 J -12111947.74 -12111947.64 -12111947.51 0.0146 0.0128
 Jupiter -37874-09-20 12:42 J -12111793.13 -12111792.97 -12111792.81 0.0515 0.0367

Saturn -37869-10-05 02:38 J -12109951.48 -12109951.39 -12109951.29 0.0280 0.0258
 Jupiter -37868-03-18 22:47 J -12109786.70 -12109786.55 -12109786.39 0.0513 0.0364
 Saturn -37868-10-18 03:06 J -12109573.56 -12109573.37 -12109573.18 0.0279 0.0180
 Jupiter -37862-09-25 15:50 J -12107405.06 -12107404.84 -12107404.61 0.0517 0.0155
 Pluto -37857-04-26 21:35 J -12105729.87 -12105729.60 -12105729.34 0.0066 0.0005
 Mars -37856-02-24 20:38 J -12105425.83 -12105425.64 -12105425.45 0.1836 0.0189
 Jupiter -37856-03-23 20:38 J -12105398.87 -12105398.64 -12105398.41 0.0511 0.0135
 Saturn -37853-04-08 05:45 J -12104287.50 -12104287.26 -12104287.01 0.0279 0.0045
 Saturn -37839-10-12 16:47 J -12098987.05 -12098986.80 -12098986.56 0.0279 0.0025
 Uranus -37835-10-14 15:50 J -12097524.06 -12097523.84 -12097523.60 0.0133 0.0062
 Uranus -37834-10-19 04:47 J -12097154.52 -12097154.30 -12097154.06 0.0133 0.0053
 Saturn -37824-04-02 20:23 J -12093700.74 -12093700.65 -12093700.57 0.0279 0.0259
 Saturn -37823-04-15 18:14 J -12093322.91 -12093322.74 -12093322.55 0.0280 0.0195
 Neptune -37818-03-10 03:50 J -12091533.54 -12091533.34 -12091533.10 0.0089 0.0044
 Neptune -37817-03-11 21:06 J -12091165.88 -12091165.62 -12091165.36 0.0089 0.0013
 Neptune -37816-03-14 04:04 J -12090798.54 -12090798.33 -12090798.08 0.0089 0.0036
 Neptune -37815-03-16 17:16 J -12090430.95 -12090430.78 -12090430.59 0.0089 0.0065
 Saturn -37810-10-07 00:28 J -12088400.61 -12088400.48 -12088400.32 0.0280 0.0226
 Saturn -37809-10-19 06:28 J -12088022.36 -12088022.23 -12088022.07 0.0279 0.0220
 Saturn -37794-04-10 09:50 J -12082736.33 -12082736.09 -12082735.85 0.0279 0.0004
 Uranus -37792-04-09 01:54 J -12082006.49 -12082006.42 -12082006.35 0.0145 0.0139
 Uranus -37791-04-13 19:54 J -12081636.92 -12081636.67 -12081636.41 0.0146 0.0014
 Jupiter -37791-09-20 00:14 J -12081477.61 -12081477.49 -12081477.37 0.0515 0.0442
 Uranus -37790-04-19 03:50 J -12081266.44 -12081266.34 -12081266.20 0.0146 0.0127
 Jupiter -37785-03-18 13:54 J -12079471.05 -12079470.92 -12079470.79 0.0514 0.0426
 Saturn -37780-10-13 17:30 J -12077436.03 -12077435.77 -12077435.52 0.0279 0.0014
 Jupiter -37779-09-24 14:38 J -12077090.12 -12077089.89 -12077089.65 0.0517 0.0079
 Jupiter -37773-03-22 22:18 J -12075083.80 -12075083.57 -12075083.34 0.0511 0.0072
 Pluto -37771-10-30 12:42 J -12074132.21 -12074131.97 -12074131.69 0.0078 0.0021
 Saturn -37765-04-03 19:40 J -12072149.83 -12072149.68 -12072149.52 0.0279 0.0219

Saturn -37764-04-16 15:06 J -12071771.99 -12071771.87 -12071771.73 0.0280 0.0238
 Saturn -37751-10-08 03:35 J -12066849.52 -12066849.35 -12066849.17 0.0280 0.0191
 Uranus -37751-10-14 23:45 J -12066842.75 -12066842.51 -12066842.27 0.0133 0.0051
 Uranus -37750-10-19 12:57 J -12066473.20 -12066472.96 -12066472.72 0.0133 0.0043
 Saturn -37750-10-21 12:14 J -12066471.08 -12066470.99 -12066470.90 0.0280 0.0258
 Neptune -37736-09-11 01:54 J -12061397.63 -12061397.42 -12061397.18 0.0088 0.0046
 Saturn -37735-04-11 16:33 J -12061185.05 -12061184.81 -12061184.57 0.0279 0.0039
 Neptune -37735-09-13 08:09 J -12061030.40 -12061030.16 -12061029.90 0.0088 0.0017
 Neptune -37734-09-15 23:45 J -12060662.75 -12060662.51 -12060662.24 0.0088 0.0031
 Neptune -37733-09-17 09:35 J -12060295.26 -12060295.10 -12060294.90 0.0088 0.0061
 Mars -37724-08-27 23:45 J -12057028.71 -12057028.51 -12057028.32 0.1693 0.0528
 Saturn -37721-10-14 16:04 J -12055885.07 -12055884.83 -12055884.58 0.0279 0.0052
 Jupiter -37708-09-19 01:11 J -12051162.49 -12051162.45 -12051162.41 0.0514 0.0506
 Uranus -37707-04-14 03:50 J -12050955.59 -12050955.34 -12050955.08 0.0146 0.0003
 Saturn -37706-04-05 18:28 J -12050598.92 -12050598.73 -12050598.53 0.0279 0.0176
 Uranus -37706-04-19 12:28 J -12050585.08 -12050584.98 -12050584.86 0.0146 0.0131
 Jupiter -37702-03-18 13:11 J -12049155.99 -12049155.95 -12049155.91 0.0514 0.0504
 Jupiter -37696-09-24 04:47 J -12046774.53 -12046774.30 -12046774.07 0.0516 0.0008
 Saturn -37692-10-09 10:18 J -12045298.27 -12045298.07 -12045297.87 0.0281 0.0154
 Jupiter -37690-03-23 08:38 J -12044768.37 -12044768.14 -12044767.91 0.0512 0.0013
 Saturn -37676-04-12 21:50 J -12039633.82 -12039633.59 -12039633.35 0.0279 0.0083
 Uranus -37667-10-15 08:09 J -12036161.38 -12036161.16 -12036160.91 0.0133 0.0055
 Uranus -37666-10-19 21:50 J -12035791.80 -12035791.59 -12035791.35 0.0133 0.0059
 Saturn -37662-10-16 19:40 J -12034333.90 -12034333.68 -12034333.45 0.0280 0.0094
 Neptune -37654-03-09 20:23 J -12031632.80 -12031632.65 -12031632.45 0.0089 0.0067
 Neptune -37653-03-11 04:47 J -12031265.52 -12031265.30 -12031265.05 0.0089 0.0029
 Neptune -37652-03-13 17:16 J -12030898.04 -12030897.78 -12030897.51 0.0089 0.0012
 Neptune -37651-03-16 05:45 J -12030530.46 -12030530.26 -12030530.05 0.0089 0.0051
 Saturn -37647-04-06 23:02 J -12029047.74 -12029047.54 -12029047.32 0.0279 0.0132
 Mars -37645-08-30 11:16 J -12028171.10 -12028171.03 -12028170.96 0.1690 0.1558

Saturn -37633-10-10 13:54 J -12023747.15 -12023746.92 -12023746.69 0.0281 0.0111
 Uranus -37624-04-09 17:16 J -12020643.87 -12020643.78 -12020643.67 0.0146 0.0133
 Uranus -37623-04-14 11:30 J -12020274.27 -12020274.02 -12020273.77 0.0146 0.0009
 Uranus -37622-04-19 20:09 J -12019903.75 -12019903.66 -12019903.54 0.0146 0.0133
 Saturn -37617-04-14 00:42 J -12018082.70 -12018082.47 -12018082.25 0.0279 0.0132
 Jupiter -37613-09-23 01:26 J -12016459.67 -12016459.44 -12016459.20 0.0516 0.0101
 Pluto -37609-04-28 15:50 J -12015146.09 -12015145.84 -12015145.58 0.0066 0.0005
 Jupiter -37607-03-22 09:21 J -12014453.35 -12014453.11 -12014452.88 0.0513 0.0082
 Saturn -37603-10-18 05:59 J -12012782.45 -12012782.25 -12012782.04 0.0280 0.0141
 Jupiter -37601-09-27 23:30 J -12012071.63 -12012071.52 -12012071.40 0.0518 0.0445
 Jupiter -37595-03-27 04:47 J -12010065.36 -12010065.30 -12010065.23 0.0510 0.0486
 Saturn -37588-04-08 10:47 J -12007496.27 -12007496.05 -12007495.82 0.0279 0.0080
 Uranus -37583-10-15 16:33 J -12005480.04 -12005479.81 -12005479.56 0.0133 0.0046
 Uranus -37582-10-20 06:14 J -12005110.47 -12005110.24 -12005110.00 0.0133 0.0050
 Saturn -37574-10-12 14:38 J -12002196.14 -12002195.89 -12002195.64 0.0281 0.0065
 Mars -37572-02-24 07:26 J -12001695.37 -12001695.19 -12001695.01 0.1827 0.0886
 Neptune -37572-09-10 06:57 J -12001497.34 -12001497.21 -12001497.02 0.0088 0.0067
 Neptune -37571-09-12 23:16 J -12001129.78 -12001129.53 -12001129.28 0.0088 0.0032
 Neptune -37570-09-15 10:04 J -12000762.32 -12000762.08 -12000761.82 0.0088 0.0011
 Neptune -37569-09-16 20:09 J -12000394.87 -12000394.66 -12000394.41 0.0088 0.0046
 Neptune -37568-09-19 11:30 J -12000027.02 -12000027.02 -12000026.98 0.0088 0.0088
 Saturn -37559-04-03 10:18 J -11996909.14 -11996909.07 -11996908.99 0.0278 0.0264
 Saturn -37558-04-16 05:45 J -11996531.44 -11996531.26 -11996531.08 0.0279 0.0185
 Saturn -37545-10-06 08:09 J -11991609.23 -11991609.16 -11991609.08 0.0281 0.0265
 Saturn -37544-10-19 16:18 J -11991230.99 -11991230.82 -11991230.64 0.0280 0.0191
 Uranus -37540-04-10 01:26 J -11989962.46 -11989962.44 -11989962.38 0.0146 0.0144
 Uranus -37539-04-14 20:23 J -11989592.90 -11989592.65 -11989592.40 0.0146 0.0005
 Uranus -37538-04-20 05:30 J -11989222.34 -11989222.27 -11989222.18 0.0146 0.0137
 Jupiter -37530-09-23 07:26 J -11986144.40 -11986144.19 -11986143.97 0.0515 0.0187
 Saturn -37529-04-09 23:02 J -11985944.78 -11985944.54 -11985944.30 0.0279 0.0026

Jupiter -37524-03-21 17:45 J -11984137.97 -11984137.76 -11984137.54 0.0513 0.0158
 Pluto -37523-11-01 05:45 J -11983548.48 -11983548.26 -11983548.01 0.0078 0.0027
 Jupiter -37518-09-28 08:23 J -11981756.31 -11981756.15 -11981755.98 0.0517 0.0371
 Saturn -37515-10-13 20:09 J -11980644.91 -11980644.66 -11980644.42 0.0280 0.0017
 Jupiter -37512-03-26 03:50 J -11979750.49 -11979750.34 -11979750.17 0.0511 0.0384
 Saturn -37500-04-04 17:02 J -11975357.94 -11975357.79 -11975357.63 0.0278 0.0211
 Saturn -37499-04-17 17:45 J -11974979.88 -11974979.76 -11974979.64 0.0279 0.0240
 Uranus -37499-10-16 02:09 J -11974798.65 -11974798.41 -11974798.17 0.0133 0.0046
 Uranus -37498-10-20 15:35 J -11974429.06 -11974428.85 -11974428.62 0.0133 0.0065
 Neptune -37489-03-10 15:50 J -11971365.06 -11971364.84 -11971364.59 0.0089 0.0041
 Neptune -37488-03-13 05:45 J -11970997.51 -11970997.26 -11970997.02 0.0089 0.0011
 Neptune -37487-03-15 12:42 J -11970630.20 -11970629.97 -11970629.73 0.0089 0.0038
 Neptune -37486-03-18 06:14 J -11970262.40 -11970262.24 -11970262.08 0.0089 0.0068
 Saturn -37486-10-08 20:23 J -11970057.81 -11970057.65 -11970057.50 0.0281 0.0214
 Saturn -37485-10-20 23:16 J -11969679.66 -11969679.53 -11969679.41 0.0280 0.0243
 Saturn -37470-04-12 06:57 J -11964393.46 -11964393.21 -11964392.96 0.0279 0.0030
 Uranus -37456-04-10 10:47 J -11959281.17 -11959281.05 -11959280.91 0.0146 0.0124
 Saturn -37456-10-15 07:26 J -11959093.42 -11959093.19 -11959092.95 0.0280 0.0037
 Uranus -37455-04-15 05:45 J -11958911.51 -11958911.26 -11958911.01 0.0146 0.0001
 Uranus -37454-04-20 14:09 J -11958540.94 -11958540.91 -11958540.84 0.0146 0.0143
 Jupiter -37447-09-22 13:11 J -11955829.15 -11955828.95 -11955828.74 0.0514 0.0276
 Jupiter -37441-03-20 14:52 J -11953823.08 -11953822.88 -11953822.68 0.0514 0.0272
 Saturn -37441-04-06 05:30 J -11953806.46 -11953806.27 -11953806.07 0.0278 0.0160
 Mars -37440-08-28 05:16 J -11953297.46 -11953297.28 -11953297.09 0.1700 0.0670
 Jupiter -37435-09-26 23:45 J -11951441.70 -11951441.51 -11951441.30 0.0516 0.0251
 Jupiter -37429-03-25 05:30 J -11949435.44 -11949435.27 -11949435.08 0.0512 0.0305
 Saturn -37427-10-10 05:45 J -11948506.47 -11948506.26 -11948506.05 0.0281 0.0160
 Uranus -37415-10-16 11:02 J -11944117.27 -11944117.04 -11944116.79 0.0133 0.0038
 Uranus -37414-10-21 00:14 J -11943747.71 -11943747.49 -11943747.25 0.0133 0.0059
 Saturn -37411-04-13 13:54 J -11942842.15 -11942841.92 -11942841.67 0.0279 0.0087

Neptune -37407-09-12 07:54 J -11941229.37 -11941229.17 -11941228.93 0.0088 0.0045
 Neptune -37406-09-14 17:45 J -11940862.01 -11940861.76 -11940861.48 0.0088 0.0013
 Neptune -37405-09-16 10:04 J -11940494.30 -11940494.08 -11940493.83 0.0088 0.0033
 Neptune -37404-09-18 16:18 J -11940126.99 -11940126.82 -11940126.63 0.0088 0.0064
 Saturn -37397-10-16 21:35 J -11937541.82 -11937541.60 -11937541.37 0.0280 0.0090
 Saturn -37382-04-08 19:26 J -11932254.90 -11932254.69 -11932254.46 0.0278 0.0106
 Uranus -37372-04-10 18:57 J -11928599.79 -11928599.71 -11928599.59 0.0146 0.0134
 Uranus -37371-04-15 15:06 J -11928230.11 -11928229.87 -11928229.62 0.0146 0.0015
 Saturn -37368-10-11 13:11 J -11926955.18 -11926954.95 -11926954.71 0.0280 0.0106
 Jupiter -37364-09-21 05:16 J -11925514.42 -11925514.28 -11925514.13 0.0513 0.0396
 Pluto -37361-04-29 22:47 J -11924562.79 -11924562.55 -11924562.27 0.0066 0.0018
 Mars -37361-08-31 00:42 J -11924439.55 -11924439.47 -11924439.38 0.1696 0.1528
 Jupiter -37358-03-20 17:45 J -11923507.92 -11923507.76 -11923507.59 0.0515 0.0351
 Saturn -37352-04-15 01:11 J -11921290.65 -11921290.45 -11921290.24 0.0279 0.0141
 Jupiter -37352-09-26 08:38 J -11921126.36 -11921126.14 -11921125.91 0.0516 0.0168
 Jupiter -37346-03-25 14:52 J -11919120.09 -11919119.88 -11919119.67 0.0512 0.0225
 Saturn -37338-10-19 09:21 J -11915990.32 -11915990.11 -11915989.89 0.0280 0.0144
 Uranus -37331-10-16 21:21 J -11913435.85 -11913435.61 -11913435.37 0.0133 0.0036
 Uranus -37330-10-21 10:04 J -11913066.28 -11913066.08 -11913065.85 0.0133 0.0074
 Neptune -37325-03-10 04:47 J -11911464.45 -11911464.30 -11911464.11 0.0089 0.0064
 Neptune -37324-03-12 11:02 J -11911097.27 -11911097.04 -11911096.78 0.0089 0.0027
 Neptune -37323-03-15 04:47 J -11910729.54 -11910729.30 -11910729.04 0.0089 0.0014
 Saturn -37323-04-10 05:45 J -11910703.50 -11910703.26 -11910703.01 0.0279 0.0054
 Neptune -37322-03-17 09:06 J -11910362.31 -11910362.12 -11910361.90 0.0089 0.0053
 Saturn -37309-10-13 01:11 J -11905403.68 -11905403.45 -11905403.21 0.0280 0.0050
 Saturn -37294-04-04 13:11 J -11900117.02 -11900116.95 -11900116.85 0.0278 0.0259
 Saturn -37293-04-16 14:52 J -11899739.04 -11899738.88 -11899738.71 0.0279 0.0195
 Mars -37288-02-24 11:02 J -11897964.16 -11897964.04 -11897963.92 0.1819 0.1325
 Uranus -37288-04-11 03:50 J -11897918.48 -11897918.34 -11897918.17 0.0146 0.0115
 Uranus -37287-04-16 00:28 J -11897548.73 -11897548.48 -11897548.23 0.0146 0.0008

Jupiter -37281-09-20 16:33 J -11895198.90 -11895198.81 -11895198.73 0.0513 0.0476
 Saturn -37280-10-07 13:11 J -11894817.03 -11894816.95 -11894816.85 0.0281 0.0262
 Saturn -37279-10-20 15:35 J -11894439.02 -11894438.85 -11894438.66 0.0280 0.0200
 Jupiter -37275-03-19 22:33 J -11893192.67 -11893192.56 -11893192.44 0.0515 0.0450
 Pluto -37275-11-02 14:09 J -11892965.13 -11892964.91 -11892964.67 0.0078 0.0037
 Jupiter -37269-09-25 05:16 J -11890811.52 -11890811.28 -11890811.05 0.0515 0.0085
 Saturn -37264-04-11 10:04 J -11889152.34 -11889152.08 -11889151.83 0.0279 0.0005
 Jupiter -37263-03-24 06:57 J -11888805.44 -11888805.21 -11888804.99 0.0513 0.0114
 Saturn -37250-10-15 16:33 J -11883852.05 -11883851.81 -11883851.57 0.0280 0.0007
 Uranus -37248-10-13 05:30 J -11883123.28 -11883123.27 -11883123.22 0.0133 0.0132
 Uranus -37247-10-17 07:11 J -11882754.44 -11882754.20 -11882753.95 0.0133 0.0029
 Uranus -37246-10-21 18:57 J -11882384.91 -11882384.71 -11882384.47 0.0132 0.0070
 Neptune -37243-09-11 15:50 J -11881329.00 -11881328.84 -11881328.64 0.0088 0.0065
 Neptune -37242-09-14 08:52 J -11880961.36 -11880961.13 -11880960.88 0.0088 0.0031
 Neptune -37241-09-15 14:38 J -11880594.14 -11880593.89 -11880593.63 0.0088 0.0014
 Neptune -37240-09-18 09:06 J -11880226.32 -11880226.12 -11880225.88 0.0088 0.0048
 Saturn -37235-04-06 01:26 J -11878565.58 -11878565.44 -11878565.27 0.0278 0.0207
 Saturn -37234-04-19 02:23 J -11878187.50 -11878187.40 -11878187.28 0.0279 0.0248
 Saturn -37221-10-08 19:54 J -11873265.83 -11873265.67 -11873265.49 0.0280 0.0207
 Saturn -37220-10-21 23:02 J -11872887.63 -11872887.54 -11872887.43 0.0280 0.0256
 Mars -37209-02-28 02:23 J -11869106.56 -11869106.40 -11869106.24 0.1824 0.1084
 Saturn -37205-04-12 12:14 J -11867601.23 -11867600.99 -11867600.74 0.0279 0.0049
 Uranus -37204-04-11 11:16 J -11867237.14 -11867237.03 -11867236.88 0.0146 0.0126
 Uranus -37203-04-16 09:06 J -11866867.36 -11866867.12 -11866866.87 0.0146 0.0024
 Saturn -37191-10-17 04:47 J -11862300.54 -11862300.30 -11862300.06 0.0280 0.0059
 Jupiter -37186-09-25 09:21 J -11860496.34 -11860496.11 -11860495.88 0.0514 0.0017
 Jupiter -37180-03-23 20:09 J -11858489.89 -11858489.66 -11858489.44 0.0514 0.0051
 Saturn -37176-04-07 11:16 J -11857014.23 -11857014.03 -11857013.83 0.0278 0.0156
 Uranus -37164-10-13 15:06 J -11852441.90 -11852441.87 -11852441.78 0.0133 0.0130
 Uranus -37163-10-17 18:14 J -11852072.99 -11852072.74 -11852072.50 0.0133 0.0025

Saturn -37162-10-11 02:52 J -11851714.59 -11851714.38 -11851714.18 0.0280 0.0158
 Uranus -37162-10-22 05:30 J -11851703.46 -11851703.27 -11851703.05 0.0132 0.0083
 Neptune -37160-03-12 03:06 J -11851196.58 -11851196.37 -11851196.13 0.0089 0.0041
 Neptune -37159-03-14 07:54 J -11850829.43 -11850829.17 -11850828.92 0.0089 0.0011
 Neptune -37158-03-17 01:26 J -11850461.66 -11850461.44 -11850461.20 0.0089 0.0038
 Neptune -37157-03-18 07:26 J -11850094.33 -11850094.19 -11850094.02 0.0089 0.0069
 Mars -37156-08-29 03:06 J -11849565.54 -11849565.37 -11849565.20 0.1707 0.0553
 Saturn -37146-04-14 18:42 J -11846049.94 -11846049.72 -11846049.50 0.0279 0.0094
 Saturn -37132-10-18 10:33 J -11840749.29 -11840749.06 -11840748.82 0.0280 0.0109
 Uranus -37120-04-11 20:52 J -11836555.81 -11836555.63 -11836555.45 0.0146 0.0106
 Uranus -37119-04-16 18:57 J -11836185.95 -11836185.71 -11836185.46 0.0146 0.0016
 Saturn -37117-04-08 12:57 J -11835463.19 -11835462.96 -11835462.73 0.0278 0.0112
 Pluto -37113-05-01 14:52 J -11833979.08 -11833978.88 -11833978.62 0.0066 0.0031
 Pluto -37112-05-02 23:02 J -11833612.70 -11833612.54 -11833612.34 0.0067 0.0048
 Jupiter -37103-09-24 11:16 J -11830181.26 -11830181.03 -11830180.78 0.0514 0.0090
 Saturn -37103-10-12 11:59 J -11830163.22 -11830163.00 -11830162.78 0.0280 0.0110
 Jupiter -37097-03-22 19:11 J -11828174.94 -11828174.70 -11828174.47 0.0514 0.0031
 Jupiter -37091-09-29 09:50 J -11825793.13 -11825793.09 -11825793.03 0.0517 0.0501
 Saturn -37087-04-16 01:11 J -11824498.66 -11824498.45 -11824498.24 0.0279 0.0136
 Jupiter -37085-03-27 13:40 J -11823787.00 -11823786.93 -11823786.84 0.0512 0.0473
 Uranus -37080-10-14 02:09 J -11821760.53 -11821760.41 -11821760.30 0.0133 0.0119
 Uranus -37079-10-18 05:02 J -11821391.53 -11821391.29 -11821391.04 0.0133 0.0018
 Neptune -37078-09-13 10:47 J -11821061.26 -11821061.05 -11821060.81 0.0088 0.0044
 Uranus -37078-10-22 15:21 J -11821022.05 -11821021.86 -11821021.64 0.0132 0.0081
 Mars -37077-08-31 08:52 J -11820708.23 -11820708.13 -11820708.03 0.1703 0.1438
 Neptune -37077-09-15 06:14 J -11820693.50 -11820693.24 -11820692.98 0.0088 0.0012
 Neptune -37076-09-17 11:30 J -11820326.24 -11820326.02 -11820325.77 0.0088 0.0034
 Neptune -37075-09-20 04:47 J -11819958.46 -11819958.30 -11819958.10 0.0088 0.0065
 Saturn -37073-10-19 11:45 J -11819198.21 -11819198.01 -11819197.79 0.0280 0.0156
 Saturn -37058-04-10 11:16 J -11813912.27 -11813912.03 -11813911.78 0.0278 0.0070

Saturn -37044-10-13 21:35 J -11808611.83 -11808611.60 -11808611.36 0.0280 0.0065

Uranus -37036-04-12 04:47 J -11805874.44 -11805874.30 -11805874.13 0.0146 0.0116

Uranus -37035-04-17 04:33 J -11805504.54 -11805504.31 -11805504.06 0.0146 0.0034

Saturn -37028-04-17 00:57 J -11802947.65 -11802947.46 -11802947.26 0.0279 0.0173

Pluto -37027-11-04 03:35 J -11802381.46 -11802381.35 -11802381.21 0.0078 0.0067

Pluto -37026-11-05 22:33 J -11802014.70 -11802014.56 -11802014.37 0.0077 0.0059

Jupiter -37020-09-23 17:16 J -11799865.99 -11799865.78 -11799865.56 0.0513 0.0161

Saturn -37015-10-08 07:26 J -11798025.24 -11798025.19 -11798025.12 0.0282 0.0273

Jupiter -37014-03-23 03:21 J -11797859.58 -11797859.36 -11797859.14 0.0515 0.0109

Saturn -37014-10-21 14:52 J -11797647.04 -11797646.88 -11797646.70 0.0280 0.0200

Jupiter -37008-09-28 14:52 J -11795478.03 -11795477.88 -11795477.74 0.0515 0.0409

Mars -37004-02-25 00:42 J -11794232.57 -11794232.47 -11794232.37 0.1811 0.1529

Jupiter -37002-03-27 20:09 J -11793471.81 -11793471.66 -11793471.51 0.0513 0.0400

37TH MILLENNIUM BCE

This is a list of transits of Moon in the 37th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-36999-04-11 12:57 J	-11792361.20	-11792360.96	-11792360.72	0.0278	0.0031		
Neptune	-36996-03-11 05:59 J	-11791296.41	-11791296.25	-11791296.06	0.0089	0.0064		
Uranus	-36996-10-14 12:14 J	-11791079.10	-11791078.99	-11791078.86	0.0133	0.0118		
Neptune	-36995-03-13 23:16 J	-11790928.76	-11790928.53	-11790928.27	0.0089	0.0027		
Uranus	-36995-10-18 16:47 J	-11790710.04	-11790709.80	-11790709.55	0.0133	0.0012		
Neptune	-36994-03-16 05:45 J	-11790561.50	-11790561.26	-11790561.01	0.0089	0.0015		

Uranus -36994-10-23 02:09 J -11790340.57 -11790340.41 -11790340.20 0.0132 0.0094
 Neptune -36993-03-17 19:26 J -11790193.90 -11790193.69 -11790193.47 0.0089 0.0052
 Saturn -36985-10-15 01:40 J -11787060.68 -11787060.43 -11787060.18 0.0280 0.0020
 Saturn -36970-04-06 04:04 J -11781774.44 -11781774.33 -11781774.21 0.0278 0.0244
 Saturn -36969-04-17 20:09 J -11781396.82 -11781396.66 -11781396.48 0.0279 0.0208
 Saturn -36956-10-09 10:18 J -11776474.20 -11776474.07 -11776473.93 0.0282 0.0231
 Saturn -36955-10-22 21:21 J -11776095.71 -11776095.61 -11776095.48 0.0281 0.0245
 Uranus -36952-04-12 15:35 J -11775193.04 -11775192.85 -11775192.64 0.0146 0.0095
 Uranus -36951-04-17 16:04 J -11774823.07 -11774822.83 -11774822.58 0.0146 0.0027
 Saturn -36940-04-12 17:30 J -11770810.00 -11770809.77 -11770809.53 0.0278 0.0010
 Jupiter -36937-09-23 00:14 J -11769550.70 -11769550.49 -11769550.27 0.0512 0.0229
 Jupiter -36931-03-22 12:28 J -11767544.20 -11767543.98 -11767543.75 0.0516 0.0168
 Saturn -36926-10-16 23:45 J -11765509.76 -11765509.51 -11765509.26 0.0281 0.0027
 Mars -36925-02-28 12:57 J -11765375.12 -11765374.96 -11765374.79 0.1816 0.0691
 Jupiter -36925-09-27 16:18 J -11765162.99 -11765162.82 -11765162.64 0.0515 0.0338
 Jupiter -36919-03-27 02:23 J -11763156.57 -11763156.40 -11763156.23 0.0513 0.0330
 Neptune -36914-09-13 01:40 J -11761160.58 -11761160.43 -11761160.23 0.0088 0.0065
 Neptune -36913-09-14 08:09 J -11760793.39 -11760793.16 -11760792.92 0.0088 0.0032
 Neptune -36912-09-17 00:57 J -11760425.73 -11760425.46 -11760425.20 0.0088 0.0013
 Uranus -36912-10-14 23:30 J -11760397.67 -11760397.52 -11760397.35 0.0133 0.0105
 Saturn -36911-04-06 23:16 J -11760223.69 -11760223.53 -11760223.35 0.0278 0.0205
 Neptune -36911-09-19 09:21 J -11760058.30 -11760058.11 -11760057.87 0.0088 0.0047
 Uranus -36911-10-19 04:33 J -11760028.55 -11760028.31 -11760028.06 0.0133 0.0006
 Saturn -36910-04-19 17:59 J -11759845.86 -11759845.75 -11759845.63 0.0279 0.0245
 Uranus -36910-10-23 12:28 J -11759659.14 -11759658.98 -11759658.77 0.0132 0.0095
 Saturn -36897-10-10 15:50 J -11754923.01 -11754922.84 -11754922.66 0.0282 0.0188
 Saturn -36881-04-13 21:06 J -11749258.86 -11749258.62 -11749258.38 0.0277 0.0049
 Mars -36872-08-30 01:11 J -11745833.64 -11745833.45 -11745833.26 0.1713 0.0477
 Uranus -36868-04-13 00:57 J -11744511.63 -11744511.46 -11744511.26 0.0146 0.0103
 Uranus -36867-04-18 02:52 J -11744141.60 -11744141.38 -11744141.14 0.0146 0.0047

Saturn -36867-10-17 23:59 J -11743958.73 -11743958.50 -11743958.25 0.0281 0.0072
 Pluto -36865-05-02 17:02 J -11743395.93 -11743395.79 -11743395.59 0.0066 0.0050
 Pluto -36864-05-04 14:52 J -11743029.11 -11743028.88 -11743028.62 0.0067 0.0026
 Jupiter -36854-09-23 04:47 J -11739235.49 -11739235.30 -11739235.11 0.0512 0.0278
 Saturn -36852-04-07 21:50 J -11738672.77 -11738672.59 -11738672.38 0.0277 0.0167
 Jupiter -36848-03-21 17:02 J -11737228.98 -11737228.79 -11737228.59 0.0516 0.0245
 Jupiter -36842-09-28 07:40 J -11734847.38 -11734847.18 -11734846.98 0.0514 0.0276
 Saturn -36838-10-12 18:28 J -11733371.93 -11733371.73 -11733371.51 0.0282 0.0147
 Jupiter -36836-03-26 11:45 J -11732841.21 -11732841.01 -11732840.80 0.0514 0.0237
 Neptune -36831-03-13 03:21 J -11731028.55 -11731028.36 -11731028.12 0.0089 0.0044
 Neptune -36830-03-15 16:47 J -11730661.06 -11730660.80 -11730660.54 0.0089 0.0011
 Neptune -36829-03-17 04:04 J -11730293.54 -11730293.33 -11730293.09 0.0089 0.0037
 Neptune -36828-03-19 11:59 J -11729926.15 -11729926.00 -11729925.81 0.0089 0.0068
 Uranus -36828-10-15 10:33 J -11729716.20 -11729716.06 -11729715.88 0.0133 0.0105
 Uranus -36827-10-19 17:16 J -11729347.02 -11729346.78 -11729346.53 0.0133 0.0003
 Uranus -36826-10-24 00:28 J -11728977.63 -11728977.48 -11728977.31 0.0132 0.0106
 Saturn -36822-04-15 19:40 J -11727707.92 -11727707.68 -11727707.44 0.0277 0.0088
 Saturn -36808-10-19 06:28 J -11722407.45 -11722407.23 -11722407.02 0.0281 0.0116
 Saturn -36793-04-09 04:04 J -11717121.54 -11717121.33 -11717121.12 0.0277 0.0127
 Mars -36793-09-01 10:18 J -11716976.15 -11716976.07 -11716975.98 0.1709 0.1489
 Uranus -36784-04-13 11:59 J -11713830.21 -11713830.00 -11713829.77 0.0146 0.0082
 Uranus -36783-04-18 14:38 J -11713460.12 -11713459.89 -11713459.65 0.0146 0.0040
 Saturn -36779-10-13 16:47 J -11711821.04 -11711820.80 -11711820.56 0.0282 0.0104
 Pluto -36778-11-07 14:09 J -11711431.13 -11711430.91 -11711430.67 0.0077 0.0037
 Jupiter -36771-09-22 18:28 J -11708919.90 -11708919.73 -11708919.55 0.0511 0.0337
 Jupiter -36765-03-21 00:57 J -11706913.63 -11706913.46 -11706913.28 0.0517 0.0341
 Saturn -36763-04-16 18:57 J -11706156.92 -11706156.71 -11706156.49 0.0277 0.0130
 Jupiter -36759-09-27 03:06 J -11704532.59 -11704532.37 -11704532.14 0.0513 0.0185
 Jupiter -36753-03-25 12:57 J -11702526.18 -11702525.96 -11702525.74 0.0515 0.0166
 Neptune -36749-09-13 18:28 J -11700892.94 -11700892.73 -11700892.49 0.0088 0.0047

Saturn -36749-10-20 13:40 J -11700856.13 -11700855.93 -11700855.74 0.0281 0.0162
 Neptune -36748-09-16 05:30 J -11700525.52 -11700525.27 -11700525.02 0.0088 0.0014
 Neptune -36747-09-18 16:47 J -11700158.03 -11700157.80 -11700157.53 0.0088 0.0032
 Neptune -36746-09-21 07:40 J -11699790.32 -11699790.18 -11699789.98 0.0088 0.0065
 Uranus -36744-10-15 22:18 J -11699034.75 -11699034.57 -11699034.36 0.0133 0.0090
 Uranus -36743-10-20 05:30 J -11698665.52 -11698665.27 -11698665.03 0.0133 0.0008
 Uranus -36742-10-24 11:16 J -11698296.17 -11698296.03 -11698295.87 0.0132 0.0109
 Saturn -36734-04-11 11:30 J -11695570.25 -11695570.02 -11695569.79 0.0277 0.0083
 Saturn -36720-10-14 16:18 J -11690270.07 -11690269.82 -11690269.58 0.0282 0.0058
 Saturn -36705-04-05 06:57 J -11684983.26 -11684983.21 -11684983.14 0.0276 0.0267
 Saturn -36704-04-18 02:23 J -11684605.59 -11684605.40 -11684605.22 0.0277 0.0175
 Uranus -36700-04-13 20:38 J -11683148.84 -11683148.64 -11683148.43 0.0146 0.0090
 Uranus -36699-04-19 00:14 J -11682778.70 -11682778.49 -11682778.25 0.0146 0.0059
 Saturn -36691-10-09 08:52 J -11679683.16 -11679683.13 -11679683.07 0.0282 0.0276
 Saturn -36690-10-22 17:30 J -11679304.92 -11679304.77 -11679304.59 0.0281 0.0209
 Jupiter -36688-09-21 13:54 J -11678605.05 -11678604.92 -11678604.79 0.0510 0.0427
 Jupiter -36682-03-21 01:26 J -11676598.57 -11676598.44 -11676598.30 0.0518 0.0413
 Jupiter -36676-09-26 16:33 J -11674217.04 -11674216.81 -11674216.59 0.0513 0.0112
 Saturn -36675-04-12 16:47 J -11674019.05 -11674018.80 -11674018.55 0.0277 0.0036
 Jupiter -36670-03-26 01:54 J -11672210.64 -11672210.42 -11672210.19 0.0515 0.0089
 Neptune -36667-03-12 12:28 J -11671128.14 -11671127.98 -11671127.78 0.0089 0.0066
 Neptune -36666-03-15 00:57 J -11670760.67 -11670760.46 -11670760.21 0.0089 0.0030
 Neptune -36665-03-16 08:38 J -11670393.38 -11670393.14 -11670392.87 0.0089 0.0015
 Neptune -36664-03-19 01:26 J -11670025.64 -11670025.44 -11670025.22 0.0089 0.0049
 Saturn -36661-10-15 21:50 J -11668718.83 -11668718.59 -11668718.35 0.0282 0.0010
 Uranus -36660-10-16 10:04 J -11668353.26 -11668353.08 -11668352.87 0.0133 0.0090
 Uranus -36659-10-20 18:28 J -11667983.97 -11667983.73 -11667983.48 0.0133 0.0018
 Uranus -36658-10-24 23:16 J -11667614.62 -11667614.53 -11667614.40 0.0132 0.0119
 Saturn -36646-04-07 14:52 J -11663432.02 -11663431.88 -11663431.73 0.0276 0.0220
 Saturn -36645-04-19 13:40 J -11663054.06 -11663053.93 -11663053.78 0.0277 0.0223

Mars -36641-02-28 22:33 J -11661643.76 -11661643.56 -11661643.37 0.1808 0.0277
 Saturn -36632-10-10 15:21 J -11658132.01 -11658131.86 -11658131.70 0.0282 0.0222
 Saturn -36631-10-23 20:52 J -11657753.71 -11657753.63 -11657753.53 0.0281 0.0262
 Saturn -36616-04-13 21:06 J -11652467.87 -11652467.62 -11652467.36 0.0277 0.0014
 Uranus -36616-04-14 06:57 J -11652467.44 -11652467.21 -11652466.98 0.0146 0.0071 *
 Pluto -36616-05-05 16:04 J -11652446.08 -11652445.83 -11652445.58 0.0067 0.0005
 Uranus -36615-04-19 11:45 J -11652097.24 -11652097.01 -11652096.78 0.0146 0.0050
 Jupiter -36605-09-21 03:06 J -11648289.41 -11648289.37 -11648289.30 0.0510 0.0493
 Saturn -36602-10-18 08:52 J -11647167.36 -11647167.13 -11647166.89 0.0282 0.0044
 Jupiter -36593-09-25 17:59 J -11643902.00 -11643901.75 -11643901.51 0.0512 0.0022
 Mars -36588-08-30 02:52 J -11642102.57 -11642102.38 -11642102.19 0.1721 0.0690
 Jupiter -36587-03-24 17:59 J -11641895.99 -11641895.75 -11641895.52 0.0516 0.0029
 Saturn -36587-04-09 03:50 J -11641880.52 -11641880.34 -11641880.15 0.0276 0.0167
 Saturn -36586-04-22 00:14 J -11641502.50 -11641502.49 -11641502.46 0.0277 0.0276
 Neptune -36585-09-12 23:30 J -11640992.67 -11640992.52 -11640992.36 0.0088 0.0068
 Neptune -36584-09-15 09:35 J -11640625.34 -11640625.10 -11640624.85 0.0088 0.0036
 Neptune -36583-09-18 01:26 J -11640257.68 -11640257.44 -11640257.18 0.0088 0.0010
 Neptune -36582-09-20 07:54 J -11639890.39 -11639890.17 -11639889.93 0.0088 0.0042
 Jupiter -36581-09-30 08:23 J -11639514.18 -11639514.15 -11639514.12 0.0514 0.0507
 Uranus -36576-10-16 22:33 J -11637671.77 -11637671.56 -11637671.33 0.0133 0.0074
 Uranus -36575-10-21 07:11 J -11637302.44 -11637302.20 -11637301.95 0.0133 0.0023
 Uranus -36574-10-25 10:47 J -11636933.11 -11636933.05 -11636932.94 0.0132 0.0125
 Saturn -36573-10-11 19:40 J -11636580.88 -11636580.68 -11636580.47 0.0282 0.0165
 Saturn -36557-04-15 05:45 J -11630916.49 -11630916.26 -11630916.02 0.0277 0.0069
 Saturn -36543-10-19 19:26 J -11625615.92 -11625615.69 -11625615.46 0.0282 0.0101
 Uranus -36532-04-14 15:35 J -11621786.06 -11621785.85 -11621785.63 0.0146 0.0079
 Uranus -36531-04-19 21:35 J -11621415.81 -11621415.60 -11621415.38 0.0146 0.0070
 Pluto -36530-11-08 11:45 J -11620848.26 -11620848.01 -11620847.75 0.0077 0.0004
 Saturn -36528-04-10 15:50 J -11620329.07 -11620328.84 -11620328.62 0.0277 0.0113
 Saturn -36514-10-14 06:14 J -11615029.46 -11615029.24 -11615029.02 0.0282 0.0107

Jupiter -36510-09-25 15:50 J -11613587.06 -11613586.84 -11613586.62 0.0511 0.0097
 Mars -36509-09-02 02:09 J -11613244.52 -11613244.41 -11613244.30 0.1716 0.1429
 Jupiter -36504-03-24 02:52 J -11611580.60 -11611580.38 -11611580.17 0.0517 0.0108
 Neptune -36502-03-14 04:47 J -11610860.51 -11610860.30 -11610860.07 0.0089 0.0046
 Neptune -36501-03-15 22:04 J -11610492.83 -11610492.58 -11610492.34 0.0089 0.0015
 Neptune -36500-03-18 02:09 J -11610125.64 -11610125.41 -11610125.17 0.0089 0.0033
 Neptune -36499-03-20 19:40 J -11609757.84 -11609757.68 -11609757.49 0.0089 0.0066
 Saturn -36498-04-17 20:09 J -11609364.86 -11609364.66 -11609364.44 0.0277 0.0125
 Jupiter -36498-09-30 15:35 J -11609198.98 -11609198.85 -11609198.70 0.0514 0.0413
 Jupiter -36492-03-28 20:38 J -11607192.76 -11607192.64 -11607192.53 0.0514 0.0447
 Uranus -36492-10-17 10:47 J -11606990.25 -11606990.05 -11606989.81 0.0133 0.0075
 Uranus -36491-10-21 20:52 J -11606620.86 -11606620.63 -11606620.39 0.0133 0.0034
 Saturn -36484-10-21 01:26 J -11604064.64 -11604064.44 -11604064.22 0.0282 0.0158
 Saturn -36469-04-11 22:18 J -11598777.82 -11598777.57 -11598777.32 0.0277 0.0061
 Saturn -36455-10-15 21:50 J -11593477.82 -11593477.59 -11593477.35 0.0282 0.0050
 Uranus -36448-04-15 03:21 J -11591104.58 -11591104.36 -11591104.11 0.0146 0.0059
 Uranus -36447-04-20 10:18 J -11590734.29 -11590734.07 -11590733.85 0.0146 0.0063
 Saturn -36440-04-06 14:09 J -11588190.97 -11588190.91 -11588190.85 0.0276 0.0266
 Saturn -36439-04-19 11:02 J -11587813.21 -11587813.04 -11587812.84 0.0277 0.0179
 Jupiter -36427-09-25 00:14 J -11583271.71 -11583271.49 -11583271.26 0.0511 0.0185
 Saturn -36426-10-10 02:38 J -11582891.44 -11582891.39 -11582891.32 0.0282 0.0274
 Saturn -36425-10-22 10:04 J -11582513.24 -11582513.08 -11582512.92 0.0281 0.0217
 Jupiter -36421-03-23 01:54 J -11581265.64 -11581265.42 -11581265.21 0.0517 0.0224
 Neptune -36420-09-14 19:26 J -11580724.88 -11580724.69 -11580724.47 0.0088 0.0054
 Neptune -36419-09-17 01:26 J -11580357.69 -11580357.44 -11580357.18 0.0088 0.0018
 Neptune -36418-09-19 20:09 J -11579989.89 -11579989.66 -11579989.40 0.0088 0.0027
 Neptune -36417-09-21 01:11 J -11579622.61 -11579622.45 -11579622.24 0.0088 0.0061
 Jupiter -36415-09-29 12:28 J -11578884.16 -11578883.98 -11578883.80 0.0513 0.0322
 Saturn -36410-04-14 03:50 J -11577226.58 -11577226.34 -11577226.09 0.0277 0.0012
 Jupiter -36409-03-27 13:26 J -11576878.11 -11576877.94 -11576877.77 0.0515 0.0330

Uranus -36408-10-17 23:59 J -11576308.73 -11576308.50 -11576308.25 0.0133 0.0057
 Uranus -36407-10-22 10:18 J -11575939.30 -11575939.07 -11575938.83 0.0133 0.0039
 Saturn -36396-10-17 13:40 J -11571926.17 -11571925.93 -11571925.68 0.0282 0.0011
 Saturn -36381-04-08 03:21 J -11566639.51 -11566639.36 -11566639.20 0.0277 0.0213
 Saturn -36380-04-20 20:09 J -11566261.78 -11566261.66 -11566261.51 0.0277 0.0230
 Pluto -36368-05-07 03:06 J -11561862.62 -11561862.37 -11561862.11 0.0067 0.0020
 Pluto -36367-05-08 15:50 J -11561495.97 -11561495.84 -11561495.70 0.0067 0.0056
 Saturn -36367-10-11 11:30 J -11561340.16 -11561340.02 -11561339.84 0.0282 0.0215
 Saturn -36366-10-24 22:47 J -11560961.59 -11560961.55 -11560961.48 0.0281 0.0273
 Uranus -36364-04-15 14:38 J -11560423.12 -11560422.89 -11560422.66 0.0146 0.0063
 Uranus -36363-04-20 21:50 J -11560052.77 -11560052.59 -11560052.37 0.0146 0.0087
 Mars -36357-02-28 13:26 J -11557913.12 -11557912.94 -11557912.75 0.1798 0.0521
 Saturn -36351-04-15 13:11 J -11555675.19 -11555674.95 -11555674.72 0.0277 0.0038
 Jupiter -36344-09-23 15:50 J -11552957.02 -11552956.84 -11552956.65 0.0510 0.0294
 Neptune -36338-03-13 16:33 J -11550959.94 -11550959.81 -11550959.63 0.0089 0.0070
 Jupiter -36338-03-22 23:45 J -11550950.68 -11550950.51 -11550950.34 0.0518 0.0326
 Neptune -36337-03-14 21:06 J -11550592.84 -11550592.62 -11550592.37 0.0089 0.0035
 Saturn -36337-10-19 01:40 J -11550374.67 -11550374.43 -11550374.18 0.0282 0.0067
 Neptune -36336-03-17 15:06 J -11550225.13 -11550224.87 -11550224.61 0.0089 0.0010
 Neptune -36335-03-19 20:38 J -11549857.84 -11549857.64 -11549857.41 0.0089 0.0045
 Neptune -36334-03-22 11:45 J -11549490.01 -11549490.01 -11549489.99 0.0089 0.0089
 Jupiter -36332-09-28 17:16 J -11548568.99 -11548568.78 -11548568.57 0.0512 0.0212
 Jupiter -36326-03-28 00:57 J -11546562.66 -11546562.46 -11546562.25 0.0516 0.0259
 Uranus -36324-10-18 13:26 J -11545627.17 -11545626.94 -11545626.70 0.0133 0.0057
 Uranus -36323-10-23 00:42 J -11545257.69 -11545257.47 -11545257.23 0.0133 0.0053
 Saturn -36322-04-10 11:30 J -11545088.22 -11545088.02 -11545087.82 0.0277 0.0162
 Saturn -36308-10-13 00:42 J -11539788.66 -11539788.47 -11539788.27 0.0282 0.0157
 Mars -36304-08-30 15:06 J -11538371.03 -11538370.87 -11538370.70 0.1728 0.0731
 Saturn -36292-04-16 23:16 J -11534123.75 -11534123.53 -11534123.30 0.0277 0.0084
 Pluto -36282-11-09 21:06 J -11530264.81 -11530264.62 -11530264.38 0.0077 0.0045

Uranus -36280-04-16 04:33 J -11529741.56 -11529741.31 -11529741.06 0.0146 0.0041
 Uranus -36279-04-21 12:14 J -11529371.18 -11529370.99 -11529370.77 0.0146 0.0082
 Saturn -36278-10-21 07:54 J -11528823.39 -11528823.17 -11528822.94 0.0282 0.0125
 Saturn -36263-04-11 13:54 J -11523537.14 -11523536.92 -11523536.68 0.0277 0.0116
 Jupiter -36261-09-23 01:54 J -11522641.57 -11522641.42 -11522641.27 0.0509 0.0384
 Neptune -36256-09-13 16:18 J -11520824.93 -11520824.82 -11520824.64 0.0088 0.0075
 Jupiter -36255-03-22 11:59 J -11520635.14 -11520635.00 -11520634.84 0.0519 0.0400
 Neptune -36255-09-16 11:45 J -11520457.22 -11520457.01 -11520456.76 0.0088 0.0043
 Neptune -36254-09-18 17:30 J -11520090.02 -11520089.77 -11520089.51 0.0088 0.0005
 Neptune -36253-09-20 10:47 J -11519722.28 -11519722.05 -11519721.79 0.0088 0.0036
 Neptune -36252-09-22 19:11 J -11519354.76 -11519354.70 -11519354.60 0.0088 0.0084
 Jupiter -36249-09-27 14:52 J -11518254.11 -11518253.88 -11518253.65 0.0512 0.0132
 Saturn -36249-10-14 15:50 J -11518237.07 -11518236.84 -11518236.62 0.0282 0.0099
 Jupiter -36243-03-26 20:09 J -11516247.88 -11516247.66 -11516247.44 0.0516 0.0165
 Uranus -36240-10-19 03:21 J -11514945.60 -11514945.36 -11514945.10 0.0133 0.0038
 Uranus -36239-10-23 14:52 J -11514576.09 -11514575.88 -11514575.64 0.0133 0.0058
 Saturn -36233-04-18 05:16 J -11512572.49 -11512572.28 -11512572.06 0.0277 0.0129
 Mars -36225-09-02 02:38 J -11509513.54 -11509513.39 -11509513.23 0.1724 0.1101
 Saturn -36219-10-22 14:38 J -11507272.06 -11507271.89 -11507271.69 0.0282 0.0181
 Saturn -36204-04-12 16:18 J -11501986.05 -11501985.82 -11501985.58 0.0276 0.0073
 Uranus -36196-04-16 15:21 J -11499060.09 -11499059.86 -11499059.61 0.0146 0.0046
 Uranus -36195-04-21 23:45 J -11498689.66 -11498689.51 -11498689.31 0.0146 0.0105
 Saturn -36190-10-17 01:11 J -11496685.69 -11496685.45 -11496685.20 0.0282 0.0046
 Jupiter -36178-09-23 01:26 J -11492326.54 -11492326.44 -11492326.34 0.0509 0.0458
 Saturn -36174-04-20 04:33 J -11491021.50 -11491021.31 -11491021.10 0.0277 0.0167
 Neptune -36173-03-14 09:06 J -11490692.31 -11490692.12 -11490691.89 0.0089 0.0052
 Neptune -36172-03-16 15:50 J -11490325.08 -11490324.84 -11490324.59 0.0089 0.0019
 Jupiter -36172-03-21 06:57 J -11490320.27 -11490320.21 -11490320.15 0.0519 0.0498
 Neptune -36171-03-19 05:45 J -11489957.51 -11489957.26 -11489957.01 0.0089 0.0028
 Neptune -36170-03-21 16:04 J -11489590.00 -11489589.83 -11489589.64 0.0089 0.0061

Jupiter -36166-09-27 22:47 J -11487938.77 -11487938.55 -11487938.32 0.0511 0.0054
 Saturn -36161-10-10 10:33 J -11486099.14 -11486099.06 -11486098.96 0.0283 0.0263
 Jupiter -36160-03-26 06:14 J -11485932.47 -11485932.24 -11485932.02 0.0518 0.0089
 Saturn -36160-10-24 00:57 J -11485720.59 -11485720.46 -11485720.32 0.0282 0.0231
 Uranus -36157-10-15 15:35 J -11484632.89 -11484632.85 -11484632.78 0.0133 0.0129
 Uranus -36156-10-19 17:16 J -11484264.02 -11484263.78 -11484263.52 0.0133 0.0038
 Uranus -36155-10-24 05:59 J -11483894.45 -11483894.25 -11483894.03 0.0133 0.0072
 Saturn -36145-04-13 22:47 J -11480434.78 -11480434.55 -11480434.31 0.0276 0.0034
 Saturn -36131-10-18 04:04 J -11475134.58 -11475134.33 -11475134.07 0.0282 0.0004
 Pluto -36120-05-08 04:04 J -11471279.45 -11471279.33 -11471279.18 0.0066 0.0056
 Pluto -36119-05-09 17:59 J -11470912.98 -11470912.75 -11470912.48 0.0067 0.0027
 Saturn -36116-04-08 11:30 J -11469848.13 -11469848.02 -11469847.89 0.0276 0.0243
 Saturn -36115-04-21 01:26 J -11469470.60 -11469470.44 -11469470.26 0.0277 0.0202
 Uranus -36112-04-17 04:47 J -11468378.55 -11468378.30 -11468378.04 0.0146 0.0025
 Uranus -36111-04-22 13:26 J -11468008.11 -11468007.94 -11468007.74 0.0146 0.0098
 Saturn -36102-10-12 17:59 J -11464547.89 -11464547.75 -11464547.59 0.0283 0.0219
 Saturn -36101-10-25 08:52 J -11464169.16 -11464169.13 -11464169.08 0.0282 0.0278
 Neptune -36091-09-15 09:50 J -11460557.25 -11460557.09 -11460556.89 0.0088 0.0062
 Neptune -36090-09-18 02:38 J -11460189.63 -11460189.39 -11460189.12 0.0088 0.0025
 Neptune -36089-09-19 12:14 J -11459822.24 -11459821.99 -11459821.74 0.0088 0.0019
 Neptune -36088-09-21 23:16 J -11459454.71 -11459454.53 -11459454.29 0.0088 0.0056
 Saturn -36086-04-16 04:33 J -11458883.55 -11458883.31 -11458883.06 0.0276 0.0005
 Jupiter -36083-09-27 01:26 J -11457623.68 -11457623.44 -11457623.19 0.0510 0.0025
 Jupiter -36077-03-25 10:33 J -11455617.30 -11455617.06 -11455616.82 0.0518 0.0035
 Mars -36073-02-29 01:54 J -11454181.58 -11454181.42 -11454181.26 0.1790 0.0741
 Uranus -36073-10-16 06:42 J -11453951.23 -11453951.22 -11453951.19 0.0133 0.0133
 Saturn -36072-10-19 05:02 J -11453583.53 -11453583.29 -11453583.04 0.0282 0.0050
 Uranus -36072-10-20 07:54 J -11453582.43 -11453582.17 -11453581.91 0.0133 0.0018
 Uranus -36071-10-24 20:23 J -11453212.84 -11453212.65 -11453212.43 0.0133 0.0077
 Saturn -36057-04-09 08:09 J -11448297.31 -11448297.16 -11448296.99 0.0276 0.0211

Saturn -36056-04-22 03:06 J -11447919.48 -11447919.37 -11447919.24 0.0277 0.0235

Saturn -36043-10-13 23:59 J -11442996.68 -11442996.50 -11442996.30 0.0283 0.0173

Pluto -36033-11-11 20:09 J -11439314.88 -11439314.66 -11439314.42 0.0077 0.0039

Uranus -36028-04-17 15:21 J -11437697.11 -11437696.86 -11437696.61 0.0146 0.0030

Saturn -36027-04-17 03:35 J -11437332.60 -11437332.35 -11437332.10 0.0276 0.0039

Uranus -36027-04-23 00:28 J -11437326.62 -11437326.48 -11437326.33 0.0146 0.0119

Mars -36020-08-31 14:09 J -11434639.09 -11434638.91 -11434638.74 0.1735 0.0657

Saturn -36013-10-20 09:06 J -11432032.34 -11432032.12 -11432031.89 0.0282 0.0093

Neptune -36009-03-13 09:06 J -11430792.21 -11430792.12 -11430791.96 0.0089 0.0078

Neptune -36008-03-15 23:02 J -11430424.77 -11430424.54 -11430424.30 0.0089 0.0043

Neptune -36007-03-18 11:02 J -11430057.29 -11430057.04 -11430056.80 0.0089 0.0005

Neptune -36006-03-20 18:42 J -11429689.94 -11429689.72 -11429689.47 0.0089 0.0038

Neptune -36005-03-22 10:18 J -11429322.11 -11429322.07 -11429321.96 0.0089 0.0086

36TH MILLENNIUM BCE

This is a list of transits of Moon in the 36th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-36000-09-26 10:04 J	-11427308.30	-11427308.08	-11427307.85	0.0510	0.0078		
Saturn	-35998-04-11 10:33 J	-11426746.23	-11426746.06	-11426745.87	0.0276	0.0174		
Saturn	-35997-04-23 07:40 J	-11426368.22	-11426368.18	-11426368.11	0.0277	0.0269		
Mars	-35994-03-03 12:14 J	-11425324.05	-11425323.99	-11425323.93	0.1795	0.1704		
Jupiter	-35994-03-25 18:42 J	-11425301.94	-11425301.72	-11425301.49	0.0518	0.0032		
Uranus	-35989-10-16 21:06 J	-11423269.75	-11423269.62	-11423269.46	0.0133	0.0109		

Jupiter -35988-10-01 08:38 J -11422920.18 -11422920.14 -11422920.10 0.0512 0.0504
 Uranus -35988-10-20 22:04 J -11422900.83 -11422900.58 -11422900.32 0.0133 0.0019
 Uranus -35987-10-25 11:30 J -11422531.18 -11422531.02 -11422530.82 0.0133 0.0092
 Saturn -35984-10-14 23:30 J -11421445.74 -11421445.52 -11421445.29 0.0283 0.0131
 Jupiter -35982-03-30 10:18 J -11420914.11 -11420914.07 -11420914.00 0.0516 0.0502
 Saturn -35968-04-17 23:59 J -11415781.74 -11415781.50 -11415781.26 0.0276 0.0073
 Saturn -35954-10-22 15:50 J -11410481.04 -11410480.84 -11410480.63 0.0282 0.0137
 Uranus -35944-04-18 05:16 J -11407015.54 -11407015.28 -11407015.03 0.0146 0.0010
 Uranus -35943-04-23 13:54 J -11406645.07 -11406644.92 -11406644.76 0.0146 0.0112
 Mars -35941-09-02 21:50 J -11405781.73 -11405781.59 -11405781.44 0.1730 0.1033
 Saturn -35939-04-12 15:06 J -11405195.07 -11405194.87 -11405194.66 0.0276 0.0138
 Neptune -35927-09-14 16:18 J -11400656.89 -11400656.82 -11400656.69 0.0088 0.0082
 Neptune -35926-09-17 03:50 J -11400289.54 -11400289.34 -11400289.13 0.0088 0.0051
 Neptune -35925-09-18 15:06 J -11399922.14 -11399921.87 -11399921.60 0.0088 0.0002
 Saturn -35925-10-15 19:26 J -11399894.93 -11399894.69 -11399894.45 0.0284 0.0088
 Neptune -35924-09-21 06:14 J -11399554.46 -11399554.24 -11399553.98 0.0088 0.0029
 Neptune -35923-09-23 13:11 J -11399187.08 -11399186.95 -11399186.82 0.0088 0.0077
 Jupiter -35917-09-25 21:35 J -11396992.83 -11396992.60 -11396992.37 0.0509 0.0136
 Jupiter -35911-03-24 23:45 J -11394986.75 -11394986.51 -11394986.28 0.0520 0.0117
 Saturn -35909-04-19 01:11 J -11394230.66 -11394230.45 -11394230.23 0.0276 0.0114
 Jupiter -35905-09-30 07:11 J -11392605.33 -11392605.20 -11392605.08 0.0511 0.0425
 Uranus -35905-10-17 11:59 J -11392588.11 -11392588.00 -11392587.84 0.0133 0.0114
 Uranus -35904-10-21 13:11 J -11392219.21 -11392218.95 -11392218.69 0.0133 0.0002
 Uranus -35903-10-26 02:38 J -11391849.55 -11391849.39 -11391849.20 0.0133 0.0096
 Jupiter -35899-03-29 16:04 J -11390598.95 -11390598.83 -11390598.72 0.0517 0.0438
 Saturn -35895-10-23 19:11 J -11388929.89 -11388929.70 -11388929.50 0.0283 0.0180
 Saturn -35880-04-13 17:45 J -11383643.99 -11383643.76 -11383643.53 0.0276 0.0097
 Pluto -35871-05-11 00:57 J -11380329.70 -11380329.46 -11380329.20 0.0067 0.0005
 Saturn -35866-10-17 20:09 J -11378343.90 -11378343.66 -11378343.42 0.0284 0.0046
 Uranus -35861-04-13 22:33 J -11376703.62 -11376703.56 -11376703.47 0.0145 0.0139

Uranus -35860-04-18 17:02 J -11376334.04 -11376333.79 -11376333.54 0.0146 0.0012
 Uranus -35859-04-24 01:26 J -11375963.52 -11375963.44 -11375963.33 0.0146 0.0135
 Saturn -35850-04-21 07:11 J -11372679.38 -11372679.20 -11372678.99 0.0276 0.0156
 Neptune -35844-03-15 04:33 J -11370524.48 -11370524.31 -11370524.12 0.0089 0.0061
 Neptune -35843-03-17 11:45 J -11370157.25 -11370157.01 -11370156.75 0.0089 0.0025
 Neptune -35842-03-20 04:33 J -11369789.54 -11369789.31 -11369789.05 0.0089 0.0020
 Neptune -35841-03-21 08:52 J -11369422.31 -11369422.13 -11369421.90 0.0089 0.0055
 Saturn -35837-10-11 07:40 J -11367757.24 -11367757.18 -11367757.10 0.0284 0.0272
 Saturn -35836-10-24 17:45 J -11367378.91 -11367378.76 -11367378.59 0.0283 0.0223
 Jupiter -35834-09-25 20:23 J -11366677.85 -11366677.65 -11366677.43 0.0508 0.0212
 Jupiter -35828-03-24 04:47 J -11364671.51 -11364671.30 -11364671.08 0.0520 0.0178
 Jupiter -35822-09-30 23:02 J -11362289.70 -11362289.54 -11362289.38 0.0511 0.0372
 Saturn -35821-04-14 17:02 J -11362093.04 -11362092.79 -11362092.54 0.0276 0.0058
 Uranus -35821-10-18 02:52 J -11361906.56 -11361906.38 -11361906.18 0.0133 0.0090
 Uranus -35820-10-22 03:35 J -11361537.60 -11361537.35 -11361537.09 0.0133 0.0001
 Uranus -35819-10-26 17:16 J -11361167.90 -11361167.78 -11361167.62 0.0133 0.0112
 Jupiter -35816-03-29 05:16 J -11360283.44 -11360283.28 -11360283.11 0.0517 0.0358
 Saturn -35807-10-19 02:38 J -11356792.63 -11356792.39 -11356792.15 0.0284 0.0005
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 Mars -35789-02-29 20:09 J -11350449.82 -11350449.66 -11350449.49 0.1783 0.0889
 Pluto -35785-11-12 23:45 J -11348731.76 -11348731.51 -11348731.26 0.0077 0.0012
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 Uranus -35777-04-14 13:54 J -11346022.03 -11346021.92 -11346021.80 0.0145 0.0129
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 Jupiter -35745-03-23 10:33 J -11334356.25 -11334356.06 -11334355.86 0.0521 0.0284
 Jupiter -35739-09-29 23:02 J -11331974.73 -11331974.54 -11331974.33 0.0510 0.0298
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 Jupiter -35241-09-25 19:40 J -11150083.89 -11150083.68 -11150083.48 0.0506 0.0253
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 Uranus -35064-10-27 06:28 J -11085403.41 -11085403.23 -11085403.04 0.0133 0.0089
 Jupiter -35063-09-30 00:14 J -11085065.73 -11085065.49 -11085065.25 0.0507 0.0090
 Jupiter -35057-03-27 19:11 J -11083059.93 -11083059.70 -11083059.46 0.0522 0.0051
 Saturn -35055-04-22 12:43 J -11082304.18 -11082303.97 -11082303.75 0.0274 0.0117
 Saturn -35041-10-25 20:38 J -11077003.84 -11077003.64 -11077003.43 0.0284 0.0167
 Pluto -35039-11-19 03:35 J -11076249.54 -11076249.35 -11076249.13 0.0077 0.0043
 Saturn -35026-04-17 01:40 J -11071717.66 -11071717.43 -11071717.19 0.0274 0.0103
 Neptune -35021-03-17 11:45 J -11069921.18 -11069921.01 -11069920.83 0.0089 0.0066
 Uranus -35021-04-19 03:21 J -11069888.60 -11069888.36 -11069888.11 0.0145 0.0053
 Neptune -35020-03-20 05:16 J -11069553.53 -11069553.28 -11069553.03 0.0089 0.0016
 Uranus -35020-04-24 04:47 J -11069518.50 -11069518.30 -11069518.09 0.0145 0.0078
 Neptune -35019-03-22 09:21 J -11069186.35 -11069186.11 -11069185.85 0.0089 0.0017
 Neptune -35018-03-25 03:21 J -11068818.52 -11068818.36 -11068818.18 0.0089 0.0067
 Saturn -35012-10-20 02:09 J -11066417.64 -11066417.41 -11066417.18 0.0285 0.0064

35TH MILLENNIUM BCE

This is a list of transits of Moon in the 35th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-34996-04-23	17:59 J	-11060752.93	-11060752.75	-11060752.54	0.0274	0.0160	
Jupiter	-34992-09-24	13:11 J	-11059138.02	-11059137.95	-11059137.86	0.0504	0.0475	
Uranus	-34982-10-20	00:57 J	-11055460.54	-11055460.46	-11055460.33	0.0134	0.0122	
Saturn	-34982-10-27	18:43 J	-11055452.88	-11055452.72	-11055452.54	0.0284	0.0207	

Uranus -34981-10-23 12:28 J -11055091.25 -11055090.98 -11055090.72 0.0134 0.0006
 Jupiter -34980-09-29 03:35 J -11054750.58 -11054750.35 -11054750.12 0.0506 0.0015
 Uranus -34980-10-27 17:16 J -11054721.96 -11054721.78 -11054721.57 0.0133 0.0083
 Jupiter -34974-03-28 05:59 J -11052744.47 -11052744.25 -11052744.02 0.0522 0.0009
 Saturn -34967-04-17 23:02 J -11050166.78 -11050166.54 -11050166.30 0.0274 0.0061
 Saturn -34953-10-21 06:14 J -11044866.48 -11044866.24 -11044865.99 0.0285 0.0023
 Neptune -34939-09-19 01:11 J -11039785.59 -11039785.45 -11039785.27 0.0088 0.0068
 Saturn -34938-04-13 09:07 J -11039579.20 -11039579.12 -11039579.02 0.0273 0.0251
 Neptune -34938-09-21 06:43 J -11039418.46 -11039418.22 -11039417.95 0.0088 0.0020
 Mars -34937-03-02 05:16 J -11039255.39 -11039255.28 -11039255.17 0.1760 0.1405
 Uranus -34937-04-19 13:40 J -11039207.18 -11039206.93 -11039206.68 0.0145 0.0042
 Saturn -34937-04-24 19:11 J -11039201.86 -11039201.70 -11039201.53 0.0274 0.0205
 Neptune -34937-09-23 01:55 J -11039050.67 -11039050.42 -11039050.16 0.0088 0.0013
 Uranus -34936-04-24 16:04 J -11038837.02 -11038836.83 -11038836.63 0.0145 0.0087
 Neptune -34936-09-25 06:43 J -11038683.39 -11038683.22 -11038683.03 0.0088 0.0061
 Saturn -34924-10-15 03:07 J -11034280.46 -11034280.37 -11034280.26 0.0285 0.0258
 Saturn -34923-10-28 22:33 J -11033901.67 -11033901.56 -11033901.45 0.0284 0.0254
 Saturn -34908-04-19 03:50 J -11028615.58 -11028615.34 -11028615.11 0.0274 0.0014
 Uranus -34898-10-20 12:57 J -11024779.10 -11024778.96 -11024778.79 0.0134 0.0104
 Jupiter -34897-09-28 19:40 J -11024434.92 -11024434.68 -11024434.44 0.0506 0.0037
 Uranus -34897-10-23 23:45 J -11024409.77 -11024409.51 -11024409.25 0.0134 0.0013
 Uranus -34896-10-28 05:59 J -11024040.39 -11024040.25 -11024040.08 0.0133 0.0103
 Saturn -34894-10-23 06:28 J -11023315.48 -11023315.23 -11023314.98 0.0285 0.0020
 Jupiter -34891-03-27 09:50 J -11022429.32 -11022429.09 -11022428.86 0.0523 0.0095
 Mars -34884-09-01 13:55 J -11019714.00 -11019713.92 -11019713.85 0.1766 0.1633
 Jupiter -34879-03-31 23:02 J -11018041.60 -11018041.54 -11018041.46 0.0521 0.0493
 Saturn -34879-04-14 12:14 J -11018028.15 -11018027.99 -11018027.82 0.0273 0.0205
 Saturn -34878-04-26 17:59 J -11017650.84 -11017650.75 -11017650.66 0.0274 0.0255
 Pluto -34877-05-16 16:33 J -11017265.02 -11017264.81 -11017264.55 0.0067 0.0033
 Pluto -34876-05-18 11:02 J -11016898.21 -11016898.04 -11016897.84 0.0067 0.0046

Saturn -34865-10-16 09:07 J -11012729.27 -11012729.12 -11012728.96 0.0285 0.0214
 Mars -34858-03-05 10:19 J -11010398.24 -11010398.07 -11010397.91 0.1764 0.0696
 Neptune -34857-03-17 01:11 J -11010020.52 -11010020.45 -11010020.37 0.0089 0.0085
 Neptune -34856-03-19 05:31 J -11009653.48 -11009653.27 -11009653.04 0.0089 0.0043
 Neptune -34855-03-21 23:45 J -11009285.77 -11009285.51 -11009285.25 0.0089 0.0001
 Neptune -34854-03-24 05:02 J -11008918.50 -11008918.29 -11008918.05 0.0089 0.0040
 Neptune -34853-03-25 19:26 J -11008550.77 -11008550.69 -11008550.55 0.0089 0.0081
 Uranus -34853-04-19 23:16 J -11008525.77 -11008525.53 -11008525.27 0.0145 0.0043
 Uranus -34852-04-25 02:09 J -11008155.58 -11008155.41 -11008155.20 0.0145 0.0090
 Saturn -34849-04-20 12:14 J -11007064.22 -11007063.99 -11007063.75 0.0274 0.0037
 Saturn -34835-10-24 05:02 J -11001764.54 -11001764.29 -11001764.04 0.0285 0.0062
 Saturn -34820-04-15 13:26 J -10996477.14 -10996476.94 -10996476.72 0.0273 0.0156
 Jupiter -34814-09-28 15:07 J -10994120.09 -10994119.87 -10994119.64 0.0505 0.0126
 Uranus -34814-10-20 23:45 J -10994097.64 -10994097.51 -10994097.36 0.0134 0.0109
 Uranus -34813-10-24 08:52 J -10993728.39 -10993728.13 -10993727.86 0.0134 0.0005
 Uranus -34812-10-28 16:19 J -10993358.98 -10993358.82 -10993358.64 0.0133 0.0095
 Jupiter -34808-03-26 09:50 J -10992114.31 -10992114.09 -10992113.88 0.0524 0.0177
 Saturn -34806-10-18 19:26 J -10991177.88 -10991177.69 -10991177.49 0.0285 0.0166
 Mars -34805-09-04 14:23 J -10990856.10 -10990855.90 -10990855.71 0.1761 0.0084
 Jupiter -34802-10-03 14:38 J -10989732.00 -10989731.89 -10989731.77 0.0507 0.0439
 Jupiter -34796-03-31 14:23 J -10987726.03 -10987725.90 -10987725.77 0.0521 0.0427
 Pluto -34791-11-19 18:28 J -10985666.93 -10985666.73 -10985666.49 0.0077 0.0042
 Saturn -34790-04-22 20:09 J -10985512.89 -10985512.66 -10985512.42 0.0274 0.0087
 Saturn -34776-10-25 09:35 J -10980213.32 -10980213.10 -10980212.87 0.0285 0.0112
 Neptune -34775-09-18 03:21 J -10979885.40 -10979885.36 -10979885.31 0.0088 0.0086
 Neptune -34774-09-20 22:33 J -10979517.78 -10979517.56 -10979517.32 0.0088 0.0042
 Neptune -34773-09-22 03:50 J -10979150.59 -10979150.34 -10979150.08 0.0088 0.0006
 Neptune -34772-09-24 21:07 J -10978782.84 -10978782.62 -10978782.36 0.0088 0.0038
 Neptune -34771-09-27 05:16 J -10978415.38 -10978415.28 -10978415.12 0.0088 0.0076
 Uranus -34769-04-20 09:21 J -10977844.36 -10977844.11 -10977843.85 0.0145 0.0030

Uranus -34768-04-25 13:11 J -10977474.12 -10977473.95 -10977473.75 0.0145 0.0098
 Saturn -34761-04-16 18:14 J -10974925.96 -10974925.74 -10974925.52 0.0274 0.0106
 Saturn -34747-10-20 04:33 J -10969626.54 -10969626.31 -10969626.08 0.0285 0.0113
 Saturn -34731-04-24 01:26 J -10963961.65 -10963961.44 -10963961.22 0.0274 0.0144
 Jupiter -34731-09-28 03:21 J -10963804.57 -10963804.36 -10963804.14 0.0505 0.0196
 Uranus -34730-10-21 11:02 J -10963416.21 -10963416.04 -10963415.86 0.0134 0.0093
 Uranus -34729-10-24 19:26 J -10963046.95 -10963046.69 -10963046.42 0.0134 0.0002
 Uranus -34728-10-29 04:04 J -10962677.44 -10962677.33 -10962677.19 0.0133 0.0113
 Jupiter -34725-03-25 22:04 J -10961798.78 -10961798.58 -10961798.38 0.0524 0.0252
 Jupiter -34719-10-02 16:33 J -10959416.97 -10959416.81 -10959416.65 0.0507 0.0373
 Saturn -34717-10-26 21:21 J -10958661.79 -10958661.61 -10958661.40 0.0285 0.0167
 Jupiter -34713-03-30 05:16 J -10957411.46 -10957411.28 -10957411.08 0.0521 0.0305
 Saturn -34702-04-19 05:16 J -10953374.51 -10953374.28 -10953374.04 0.0274 0.0051
 Neptune -34692-03-18 19:26 J -10949752.82 -10949752.69 -10949752.50 0.0089 0.0070
 Neptune -34691-03-21 01:55 J -10949385.65 -10949385.42 -10949385.17 0.0089 0.0020
 Neptune -34690-03-23 16:19 J -10949018.07 -10949017.82 -10949017.55 0.0089 0.0013
 Neptune -34689-03-25 03:07 J -10948650.52 -10948650.37 -10948650.18 0.0089 0.0064
 Saturn -34688-10-21 11:02 J -10948075.29 -10948075.04 -10948074.79 0.0285 0.0055
 Uranus -34685-04-20 20:23 J -10947162.90 -10947162.65 -10947162.40 0.0145 0.0030
 Uranus -34684-04-26 00:28 J -10946792.63 -10946792.48 -10946792.29 0.0145 0.0103
 Saturn -34673-04-13 01:26 J -10942787.51 -10942787.44 -10942787.35 0.0273 0.0258
 Saturn -34672-04-25 07:11 J -10942410.35 -10942410.20 -10942410.02 0.0274 0.0202
 Saturn -34658-10-29 11:02 J -10937110.18 -10937110.04 -10937109.88 0.0285 0.0224
 Mars -34653-03-02 11:31 J -10935524.11 -10935524.02 -10935523.94 0.1752 0.1577
 Jupiter -34648-09-27 03:21 J -10933489.57 -10933489.36 -10933489.16 0.0504 0.0268
 Uranus -34646-10-21 20:52 J -10932734.79 -10932734.63 -10932734.45 0.0134 0.0098
 Uranus -34645-10-25 03:50 J -10932365.60 -10932365.34 -10932365.07 0.0134 0.0016
 Uranus -34644-10-29 13:26 J -10931996.08 -10931995.94 -10931995.78 0.0133 0.0105
 Saturn -34643-04-20 17:59 J -10931822.99 -10931822.75 -10931822.51 0.0274 0.0006
 Jupiter -34642-03-25 10:04 J -10931484.23 -10931484.08 -10931483.91 0.0524 0.0386

Jupiter -34636-10-01 17:59 J -10929101.93 -10929101.75 -10929101.56 0.0506 0.0278
 Jupiter -34630-03-30 12:28 J -10927096.19 -10927095.98 -10927095.78 0.0523 0.0205
 Saturn -34629-10-22 20:52 J -10926523.88 -10926523.63 -10926523.38 0.0285 0.0006
 Pluto -34628-05-18 20:23 J -10926315.89 -10926315.65 -10926315.38 0.0067 0.0016
 Saturn -34614-04-15 07:40 J -10921236.34 -10921236.18 -10921236.01 0.0274 0.0202
 Saturn -34613-04-26 18:57 J -10920858.76 -10920858.71 -10920858.63 0.0274 0.0263
 Neptune -34610-09-20 00:43 J -10919617.61 -10919617.47 -10919617.30 0.0088 0.0068
 Neptune -34609-09-21 17:45 J -10919250.02 -10919249.76 -10919249.50 0.0088 0.0020
 Neptune -34608-09-24 02:38 J -10918882.63 -10918882.39 -10918882.13 0.0088 0.0013
 Neptune -34607-09-26 14:38 J -10918515.06 -10918514.89 -10918514.67 0.0088 0.0061
 Uranus -34601-04-21 07:11 J -10916481.45 -10916481.20 -10916480.94 0.0145 0.0015
 Uranus -34600-04-26 11:59 J -10916111.14 -10916111.00 -10916110.82 0.0145 0.0110
 Saturn -34600-10-17 04:47 J -10915937.43 -10915937.30 -10915937.15 0.0285 0.0233
 Saturn -34584-04-22 01:40 J -10910271.68 -10910271.43 -10910271.19 0.0274 0.0062
 Mars -34574-03-06 05:59 J -10906666.43 -10906666.25 -10906666.07 0.1757 0.0634
 Saturn -34570-10-25 11:59 J -10904972.23 -10904972.00 -10904971.77 0.0285 0.0071
 Jupiter -34565-09-26 04:33 J -10903174.46 -10903174.31 -10903174.16 0.0503 0.0367
 Uranus -34562-10-22 07:26 J -10902053.37 -10902053.19 -10902052.99 0.0134 0.0084
 Uranus -34561-10-25 13:55 J -10901684.18 -10901683.92 -10901683.66 0.0134 0.0008
 Uranus -34560-10-30 00:57 J -10901314.55 -10901314.46 -10901314.36 0.0133 0.0123
 Jupiter -34559-03-24 19:26 J -10901168.79 -10901168.69 -10901168.59 0.0525 0.0467
 Saturn -34555-04-16 18:28 J -10899684.93 -10899684.73 -10899684.53 0.0274 0.0147
 Jupiter -34553-09-30 19:55 J -10898786.89 -10898786.67 -10898786.43 0.0506 0.0185
 Jupiter -34547-03-29 13:11 J -10896781.18 -10896780.95 -10896780.71 0.0523 0.0111
 Pluto -34542-11-22 00:57 J -10894717.72 -10894717.46 -10894717.19 0.0077 0.0006
 Saturn -34541-10-18 17:02 J -10894385.98 -10894385.79 -10894385.57 0.0285 0.0170
 Neptune -34528-03-18 00:43 J -10889852.50 -10889852.47 -10889852.40 0.0089 0.0088
 Neptune -34527-03-20 14:23 J -10889485.12 -10889484.90 -10889484.66 0.0089 0.0045
 Neptune -34526-03-23 01:40 J -10889117.68 -10889117.43 -10889117.19 0.0089 0.0004
 Neptune -34525-03-24 09:35 J -10888750.32 -10888750.10 -10888749.85 0.0089 0.0039

Saturn -34525-04-23 05:31 J -10888720.48 -10888720.27 -10888720.03 0.0274 0.0120
 Neptune -34524-03-27 01:26 J -10888382.53 -10888382.44 -10888382.31 0.0089 0.0079
 Mars -34521-09-04 06:57 J -10887125.41 -10887125.21 -10887125.00 0.1769 0.0450
 Uranus -34518-04-18 01:26 J -10886169.53 -10886169.44 -10886169.34 0.0144 0.0133
 Uranus -34517-04-21 17:31 J -10885800.02 -10885799.77 -10885799.52 0.0145 0.0018
 Uranus -34516-04-26 22:47 J -10885429.68 -10885429.55 -10885429.39 0.0145 0.0116
 Saturn -34511-10-27 05:16 J -10883420.49 -10883420.28 -10883420.07 0.0285 0.0133
 Saturn -34496-04-18 07:26 J -10878133.41 -10878133.19 -10878132.96 0.0274 0.0091
 Jupiter -34482-09-26 08:23 J -10872859.26 -10872859.15 -10872859.03 0.0503 0.0445
 Saturn -34482-10-21 02:23 J -10872834.63 -10872834.40 -10872834.17 0.0285 0.0109
 Uranus -34478-10-22 17:02 J -10871371.97 -10871371.79 -10871371.60 0.0134 0.0088
 Uranus -34477-10-25 21:50 J -10871002.85 -10871002.59 -10871002.33 0.0134 0.0024
 Uranus -34476-10-30 09:07 J -10870633.22 -10870633.12 -10870632.97 0.0133 0.0114
 Jupiter -34470-09-30 21:35 J -10868471.83 -10868471.60 -10868471.38 0.0505 0.0106
 Saturn -34466-04-25 11:16 J -10867169.21 -10867169.03 -10867168.83 0.0274 0.0171
 Jupiter -34464-03-28 11:16 J -10866466.25 -10866466.03 -10866465.80 0.0523 0.0010
 Jupiter -34452-04-02 07:55 J -10862078.21 -10862078.17 -10862078.11 0.0522 0.0507
 Saturn -34452-10-28 19:55 J -10861868.84 -10861868.67 -10861868.47 0.0285 0.0194
 Neptune -34446-09-19 15:35 J -10859716.90 -10859716.85 -10859716.80 0.0088 0.0086
 Neptune -34445-09-21 01:26 J -10859349.65 -10859349.44 -10859349.20 0.0088 0.0041
 Neptune -34444-09-23 13:26 J -10858982.21 -10858981.94 -10858981.67 0.0088 0.0005
 Neptune -34443-09-26 03:50 J -10858614.56 -10858614.34 -10858614.11 0.0088 0.0040
 Neptune -34442-09-28 10:33 J -10858247.18 -10858247.06 -10858246.91 0.0088 0.0075
 Saturn -34437-04-19 17:31 J -10856582.01 -10856581.77 -10856581.53 0.0274 0.0040
 Uranus -34434-04-18 09:50 J -10855488.10 -10855488.09 -10855488.03 0.0144 0.0143
 Uranus -34433-04-22 02:09 J -10855118.66 -10855118.41 -10855118.15 0.0145 0.0004
 Uranus -34432-04-27 08:09 J -10854748.28 -10854748.16 -10854748.00 0.0145 0.0119
 Saturn -34423-10-22 13:40 J -10851283.17 -10851282.93 -10851282.69 0.0285 0.0050
 Saturn -34408-04-14 06:14 J -10845995.33 -10845995.24 -10845995.14 0.0274 0.0250
 Saturn -34407-04-26 19:40 J -10845617.80 -10845617.68 -10845617.53 0.0274 0.0222

Saturn -34394-10-17 11:02 J -10840696.10 -10840696.04 -10840695.96 0.0286 0.0275
 Uranus -34394-10-23 02:38 J -10840690.58 -10840690.39 -10840690.17 0.0134 0.0077
 Uranus -34393-10-26 06:57 J -10840321.47 -10840321.21 -10840320.95 0.0134 0.0017
 Saturn -34393-10-30 03:07 J -10840317.47 -10840317.37 -10840317.23 0.0285 0.0251
 Uranus -34392-10-30 19:40 J -10839951.71 -10839951.68 -10839951.62 0.0133 0.0131
 Jupiter -34387-09-30 04:04 J -10838156.57 -10838156.33 -10838156.09 0.0504 0.0017
 Jupiter -34381-03-27 16:04 J -10836151.06 -10836150.83 -10836150.59 0.0525 0.0106
 Pluto -34379-05-21 04:33 J -10835366.55 -10835366.31 -10835366.04 0.0067 0.0006
 Saturn -34378-04-21 20:38 J -10835030.89 -10835030.64 -10835030.39 0.0274 0.0012
 Jupiter -34375-10-04 11:45 J -10833769.02 -10833769.01 -10833769.00 0.0506 0.0506
 Mars -34369-03-02 20:38 J -10831792.70 -10831792.64 -10831792.59 0.1745 0.1655
 Jupiter -34369-04-01 08:52 J -10831763.26 -10831763.13 -10831763.00 0.0522 0.0424
 Saturn -34364-10-24 04:33 J -10829731.55 -10829731.31 -10829731.07 0.0285 0.0009
 Neptune -34363-03-20 00:28 J -10829584.62 -10829584.48 -10829584.31 0.0089 0.0070
 Neptune -34362-03-22 08:52 J -10829217.38 -10829217.13 -10829216.87 0.0089 0.0019
 Neptune -34361-03-24 00:57 J -10828849.70 -10828849.46 -10828849.20 0.0089 0.0014
 Neptune -34360-03-26 05:16 J -10828482.44 -10828482.28 -10828482.08 0.0089 0.0064
 Uranus -34350-04-18 18:57 J -10824806.83 -10824806.71 -10824806.58 0.0144 0.0124
 Saturn -34349-04-15 13:11 J -10824444.10 -10824443.95 -10824443.79 0.0274 0.0203
 Uranus -34349-04-22 10:19 J -10824437.31 -10824437.07 -10824436.81 0.0145 0.0012
 Uranus -34348-04-27 16:33 J -10824066.92 -10824066.81 -10824066.67 0.0145 0.0124
 Saturn -34348-04-28 03:21 J -10824066.40 -10824066.36 -10824066.31 0.0274 0.0269
 Saturn -34335-10-18 15:35 J -10819145.01 -10819144.85 -10819144.68 0.0286 0.0220
 Saturn -34319-04-22 20:38 J -10813479.88 -10813479.64 -10813479.40 0.0273 0.0063
 Uranus -34310-10-23 11:16 J -10810009.22 -10810009.03 -10810008.82 0.0134 0.0080
 Uranus -34309-10-26 14:09 J -10809640.15 -10809639.91 -10809639.64 0.0134 0.0031
 Uranus -34308-10-31 04:04 J -10809270.43 -10809270.33 -10809270.22 0.0133 0.0120
 Saturn -34305-10-25 15:21 J -10808180.09 -10808179.86 -10808179.62 0.0285 0.0062
 Jupiter -34304-09-29 02:23 J -10807841.64 -10807841.40 -10807841.17 0.0504 0.0060
 Jupiter -34298-03-27 17:02 J -10805836.00 -10805835.79 -10805835.58 0.0525 0.0194

Pluto -34293-11-23 11:59 J -10803768.21 -10803768.00 -10803767.74 0.0077 0.0031
 Jupiter -34292-10-04 01:55 J -10803453.52 -10803453.42 -10803453.29 0.0506 0.0438
 Mars -34290-03-06 09:21 J -10802935.30 -10802935.11 -10802934.91 0.1749 0.0308
 Saturn -34290-04-17 19:26 J -10802892.88 -10802892.69 -10802892.49 0.0274 0.0156
 Jupiter -34286-04-01 19:11 J -10801447.88 -10801447.70 -10801447.53 0.0522 0.0331
 Neptune -34281-09-20 09:50 J -10799449.25 -10799449.09 -10799448.90 0.0088 0.0066
 Neptune -34280-09-23 01:55 J -10799081.66 -10799081.42 -10799081.16 0.0088 0.0019
 Neptune -34279-09-25 08:52 J -10798714.38 -10798714.13 -10798713.86 0.0088 0.0015
 Neptune -34278-09-28 03:21 J -10798346.52 -10798346.36 -10798346.16 0.0088 0.0063
 Saturn -34276-10-19 18:57 J -10797593.91 -10797593.71 -10797593.51 0.0286 0.0172
 Uranus -34266-04-19 02:09 J -10794125.47 -10794125.41 -10794125.31 0.0144 0.0137
 Uranus -34265-04-22 18:14 J -10793755.99 -10793755.74 -10793755.49 0.0145 0.0003
 Uranus -34264-04-28 00:57 J -10793385.58 -10793385.46 -10793385.32 0.0145 0.0124
 Saturn -34260-04-24 00:14 J -10791928.70 -10791928.49 -10791928.27 0.0273 0.0111
 Saturn -34246-10-27 19:26 J -10786628.92 -10786628.69 -10786628.45 0.0285 0.0114
 Mars -34237-09-04 08:09 J -10783394.32 -10783394.16 -10783394.00 0.1777 0.0906
 Saturn -34231-04-18 19:11 J -10781341.92 -10781341.70 -10781341.46 0.0273 0.0112
 Uranus -34226-10-23 20:23 J -10779327.86 -10779327.65 -10779327.43 0.0134 0.0071
 Uranus -34225-10-26 22:47 J -10778958.79 -10778958.55 -10778958.28 0.0134 0.0024
 Jupiter -34221-09-28 16:47 J -10777526.03 -10777525.80 -10777525.58 0.0503 0.0121
 Saturn -34217-10-20 23:16 J -10776042.73 -10776042.53 -10776042.30 0.0286 0.0126
 Jupiter -34215-03-27 00:43 J -10775520.65 -10775520.47 -10775520.28 0.0526 0.0305
 Jupiter -34209-10-03 03:07 J -10773138.54 -10773138.37 -10773138.20 0.0505 0.0359
 Jupiter -34203-03-31 15:07 J -10771133.08 -10771132.87 -10771132.66 0.0524 0.0234
 Saturn -34201-04-25 05:31 J -10770377.45 -10770377.27 -10770377.06 0.0273 0.0157
 Neptune -34199-03-19 08:23 J -10769684.19 -10769684.15 -10769684.07 0.0089 0.0087
 Neptune -34198-03-22 00:43 J -10769316.67 -10769316.47 -10769316.23 0.0089 0.0044
 Neptune -34197-03-23 05:31 J -10768949.52 -10768949.27 -10768949.01 0.0089 0.0004
 Neptune -34196-03-25 23:16 J -10768581.74 -10768581.53 -10768581.28 0.0089 0.0040
 Neptune -34195-03-28 03:50 J -10768214.42 -10768214.34 -10768214.21 0.0089 0.0081

Saturn -34187-10-28 18:57 J -10765077.91 -10765077.71 -10765077.49 0.0285 0.0161
 Uranus -34182-04-19 11:45 J -10763444.16 -10763444.01 -10763443.86 0.0144 0.0117
 Uranus -34181-04-23 03:35 J -10763074.60 -10763074.35 -10763074.10 0.0145 0.0005
 Uranus -34180-04-28 09:35 J -10762704.18 -10762704.10 -10762703.98 0.0145 0.0132
 Saturn -34172-04-19 15:07 J -10759791.11 -10759790.87 -10759790.63 0.0273 0.0067
 Mars -34158-09-08 03:07 J -10754536.43 -10754536.37 -10754536.30 0.1773 0.1673
 Saturn -34158-10-23 05:16 J -10754491.51 -10754491.28 -10754491.05 0.0286 0.0082
 Saturn -34143-04-14 21:35 J -10749203.61 -10749203.60 -10749203.56 0.0272 0.0270
 Saturn -34142-04-27 07:11 J -10748826.36 -10748826.20 -10748826.03 0.0273 0.0199
 Uranus -34142-10-24 04:04 J -10748646.53 -10748646.33 -10748646.10 0.0134 0.0073
 Uranus -34141-10-27 06:28 J -10748277.48 -10748277.23 -10748276.98 0.0134 0.0036
 Uranus -34140-10-31 21:07 J -10747907.68 -10747907.62 -10747907.52 0.0134 0.0127
 Jupiter -34138-09-28 17:45 J -10747210.98 -10747210.76 -10747210.53 0.0502 0.0194
 Jupiter -34132-03-26 02:23 J -10745205.56 -10745205.40 -10745205.24 0.0527 0.0380
 Pluto -34131-05-22 00:43 J -10744783.60 -10744783.47 -10744783.30 0.0067 0.0055
 Pluto -34130-05-23 13:55 J -10744417.13 -10744416.92 -10744416.68 0.0067 0.0029
 Saturn -34128-10-29 20:09 J -10743526.82 -10743526.66 -10743526.49 0.0286 0.0207
 Jupiter -34126-10-03 12:43 J -10742823.15 -10742822.97 -10742822.78 0.0505 0.0287
 Jupiter -34120-03-31 06:28 J -10740817.43 -10740817.23 -10740817.01 0.0524 0.0179
 Neptune -34117-09-20 00:28 J -10739548.51 -10739548.48 -10739548.39 0.0088 0.0086
 Neptune -34116-09-22 07:11 J -10739181.43 -10739181.20 -10739180.96 0.0088 0.0038
 Neptune -34115-09-25 02:23 J -10738813.66 -10738813.40 -10738813.14 0.0088 0.0003
 Neptune -34114-09-27 07:11 J -10738446.41 -10738446.20 -10738445.96 0.0088 0.0043
 Saturn -34113-04-20 13:40 J -10738240.16 -10738239.93 -10738239.68 0.0273 0.0027
 Neptune -34113-09-29 01:55 J -10738078.53 -10738078.42 -10738078.30 0.0088 0.0079
 Saturn -34099-10-24 06:14 J -10732940.49 -10732940.24 -10732939.99 0.0287 0.0039
 Uranus -34098-04-19 20:23 J -10732762.76 -10732762.65 -10732762.52 0.0144 0.0126
 Uranus -34097-04-23 12:57 J -10732393.21 -10732392.96 -10732392.71 0.0145 0.0013
 Uranus -34096-04-28 19:11 J -10732022.79 -10732022.70 -10732022.58 0.0145 0.0132
 Mars -34085-03-03 23:45 J -10728060.60 -10728060.51 -10728060.42 0.1738 0.1483

Saturn -34084-04-16 00:28 J -10727652.61 -10727652.48 -10727652.34 0.0272 0.0226
 Saturn -34083-04-28 03:50 J -10727275.44 -10727275.34 -10727275.22 0.0273 0.0243
 Saturn -34069-10-31 01:55 J -10721975.52 -10721975.42 -10721975.31 0.0286 0.0255
 Uranus -34058-10-24 12:43 J -10717965.18 -10717964.97 -10717964.74 0.0134 0.0065
 Uranus -34057-10-27 14:52 J -10717596.12 -10717595.88 -10717595.62 0.0134 0.0031
 Jupiter -34055-09-28 06:14 J -10716895.43 -10716895.24 -10716895.04 0.0502 0.0254
 Saturn -34054-04-22 17:45 J -10716688.99 -10716688.76 -10716688.52 0.0273 0.0019
 Jupiter -34049-03-25 16:04 J -10714889.94 -10714889.83 -10714889.72 0.0527 0.0455
 Pluto -34045-11-24 01:26 J -10713185.56 -10713185.44 -10713185.29 0.0077 0.0065
 Pluto -34044-11-25 23:02 J -10712818.68 -10712818.54 -10712818.35 0.0077 0.0057
 Jupiter -34043-10-03 00:43 J -10712507.69 -10712507.47 -10712507.25 0.0504 0.0224
 Saturn -34040-10-25 01:26 J -10711389.69 -10711389.44 -10711389.18 0.0287 0.0007
 Jupiter -34037-03-30 04:33 J -10710502.54 -10710502.31 -10710502.07 0.0525 0.0075
 Neptune -34034-03-21 05:59 J -10709416.41 -10709416.25 -10709416.08 0.0089 0.0068
 Neptune -34033-03-22 23:45 J -10709048.75 -10709048.51 -10709048.24 0.0089 0.0018
 Neptune -34032-03-25 05:02 J -10708681.53 -10708681.29 -10708681.04 0.0089 0.0016
 Neptune -34031-03-27 20:23 J -10708313.81 -10708313.65 -10708313.45 0.0089 0.0066
 Saturn -34025-04-16 21:50 J -10706101.77 -10706101.59 -10706101.39 0.0272 0.0178
 Uranus -34014-04-20 06:14 J -10702081.40 -10702081.24 -10702081.05 0.0144 0.0106
 Uranus -34013-04-23 23:45 J -10701711.76 -10701711.51 -10701711.26 0.0144 0.0006
 Uranus -34012-04-29 05:02 J -10701341.30 -10701341.29 -10701341.22 0.0145 0.0143
 Saturn -34011-10-19 07:26 J -10700803.31 -10700803.19 -10700803.06 0.0287 0.0241
 Mars -34006-03-07 02:23 J -10699203.58 -10699203.40 -10699203.23 0.1742 0.0207

34TH MILLENNIUM BCE

This is a list of transits of Moon in the 34th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-33995-04-23 23:16 J	-10695137.77	-10695137.53	-10695137.30	0.0273	0.0067		
Saturn	-33981-10-26 00:14 J	-10689838.73	-10689838.49	-10689838.25	0.0287	0.0054		
Uranus	-33974-10-24 21:07 J	-10687283.84	-10687283.62	-10687283.39	0.0134	0.0065		
Uranus	-33973-10-27 23:16 J	-10686914.77	-10686914.53	-10686914.29	0.0134	0.0042		
Jupiter	-33972-09-27 17:31 J	-10686579.96	-10686579.77	-10686579.58	0.0501	0.0315		
Uranus	-33972-11-01 14:52 J	-10686544.90	-10686544.88	-10686544.86	0.0134	0.0133		
Saturn	-33966-04-18 20:38 J	-10684550.85	-10684550.64	-10684550.42	0.0272	0.0128		
Jupiter	-33960-10-02 00:57 J	-10682192.68	-10682192.46	-10682192.23	0.0503	0.0140		
Jupiter	-33954-03-30 11:31 J	-10680187.24	-10680187.02	-10680186.80	0.0526	0.0008		
Mars	-33953-09-04 23:02 J	-10679662.69	-10679662.54	-10679662.38	0.1785	0.1050		
Neptune	-33952-09-22 00:57 J	-10679280.63	-10679280.46	-10679280.27	0.0088	0.0064		
Saturn	-33952-10-20 12:14 J	-10679252.16	-10679251.99	-10679251.80	0.0287	0.0192		
Neptune	-33951-09-24 06:14 J	-10678913.49	-10678913.24	-10678912.98	0.0088	0.0016		
Neptune	-33950-09-27 00:43 J	-10678545.72	-10678545.47	-10678545.20	0.0088	0.0018		
Neptune	-33949-09-28 07:55 J	-10678178.31	-10678178.17	-10678177.97	0.0088	0.0066		
Saturn	-33936-04-25 00:28 J	-10673586.70	-10673586.48	-10673586.25	0.0273	0.0118		
Uranus	-33930-04-20 14:23 J	-10671400.04	-10671399.90	-10671399.74	0.0144	0.0116		
Uranus	-33929-04-24 08:38 J	-10671030.38	-10671030.14	-10671029.89	0.0144	0.0023		
Uranus	-33928-04-29 13:40 J	-10670659.97	-10670659.93	-10670659.85	0.0145	0.0141		
Saturn	-33922-10-28 05:59 J	-10668287.47	-10668287.25	-10668287.03	0.0287	0.0106		
Saturn	-33907-04-20 03:07 J	-10662999.60	-10662999.37	-10662999.14	0.0272	0.0078		
Saturn	-33893-10-21 14:23 J	-10657701.12	-10657700.90	-10657700.67	0.0287	0.0137		
Uranus	-33890-10-25 05:16 J	-10656602.50	-10656602.28	-10656602.04	0.0134	0.0059		
Jupiter	-33889-09-26 16:33 J	-10656264.93	-10656264.81	-10656264.67	0.0501	0.0405		
Uranus	-33889-10-28 07:40 J	-10656233.42	-10656233.18	-10656232.93	0.0134	0.0038		
Pluto	-33882-05-24 07:11 J	-10653834.41	-10653834.20	-10653833.93	0.0067	0.0029		

Pluto -33881-05-25 02:23 J -10653467.44 -10653467.40 -10653467.29 0.0067 0.0065
 Saturn -33877-04-26 01:11 J -10652035.63 -10652035.45 -10652035.25 0.0273 0.0172
 Jupiter -33877-10-01 15:21 J -10651877.10 -10651876.86 -10651876.63 0.0503 0.0067
 Mars -33874-09-08 12:14 J -10650805.10 -10650804.99 -10650804.87 0.1780 0.1390
 Jupiter -33871-03-29 22:04 J -10649871.81 -10649871.58 -10649871.34 0.0526 0.0066
 Neptune -33870-03-21 00:28 J -10649515.56 -10649515.48 -10649515.38 0.0089 0.0084
 Neptune -33869-03-22 05:16 J -10649148.48 -10649148.28 -10649148.03 0.0089 0.0041
 Neptune -33868-03-24 20:52 J -10648780.89 -10648780.63 -10648780.36 0.0089 0.0001
 Neptune -33867-03-27 05:45 J -10648413.46 -10648413.26 -10648413.03 0.0089 0.0044
 Neptune -33866-03-29 16:19 J -10648045.90 -10648045.82 -10648045.70 0.0089 0.0083
 Saturn -33863-10-29 14:38 J -10646736.09 -10646735.89 -10646735.69 0.0287 0.0161
 Jupiter -33859-04-03 06:28 J -10645484.25 -10645484.23 -10645484.20 0.0523 0.0519
 Saturn -33848-04-21 12:57 J -10641448.19 -10641447.96 -10641447.72 0.0272 0.0025
 Uranus -33846-04-20 22:04 J -10640718.75 -10640718.58 -10640718.38 0.0144 0.0099
 Uranus -33845-04-24 17:16 J -10640349.02 -10640348.78 -10640348.53 0.0144 0.0013
 Saturn -33834-10-23 17:59 J -10636149.98 -10636149.75 -10636149.50 0.0287 0.0082
 Saturn -33819-04-16 03:35 J -10630861.45 -10630861.35 -10630861.22 0.0272 0.0239
 Saturn -33818-04-28 09:21 J -10630484.23 -10630484.11 -10630483.97 0.0273 0.0228
 Jupiter -33806-09-27 07:26 J -10625949.26 -10625949.19 -10625949.11 0.0500 0.0475
 Uranus -33806-10-25 13:40 J -10625921.17 -10625920.93 -10625920.70 0.0134 0.0057
 Uranus -33805-10-28 16:04 J -10625552.06 -10625551.83 -10625551.59 0.0134 0.0048
 Saturn -33804-10-30 21:21 J -10625184.77 -10625184.61 -10625184.44 0.0286 0.0217
 Mars -33801-03-04 17:16 J -10624328.89 -10624328.78 -10624328.67 0.1731 0.1433
 Pluto -33796-11-26 13:26 J -10622236.20 -10622235.94 -10622235.68 0.0077 0.0020
 Jupiter -33794-10-01 14:23 J -10621562.14 -10621561.90 -10621561.66 0.0502 0.0007
 Saturn -33789-04-22 20:52 J -10619896.87 -10619896.63 -10619896.38 0.0272 0.0029
 Jupiter -33788-03-28 11:45 J -10619557.21 -10619557.01 -10619556.79 0.0526 0.0199
 Neptune -33788-09-21 05:02 J -10619380.35 -10619380.29 -10619380.18 0.0088 0.0083
 Neptune -33787-09-23 23:02 J -10619012.77 -10619012.54 -10619012.28 0.0088 0.0036
 Neptune -33786-09-26 07:11 J -10618645.45 -10618645.20 -10618644.94 0.0088 0.0002

Neptune -33785-09-27 20:23 J -10618277.86 -10618277.65 -10618277.40 0.0088 0.0047
 Neptune -33784-09-30 09:21 J -10617910.18 -10617910.11 -10617910.00 0.0088 0.0082
 Jupiter -33776-04-02 17:02 J -10615168.91 -10615168.79 -10615168.66 0.0525 0.0431
 Saturn -33775-10-25 05:16 J -10614598.51 -10614598.28 -10614598.04 0.0287 0.0021
 Uranus -33762-04-21 04:04 J -10610037.48 -10610037.33 -10610037.15 0.0144 0.0111
 Uranus -33761-04-25 00:14 J -10609667.72 -10609667.49 -10609667.24 0.0144 0.0029
 Saturn -33760-04-17 11:31 J -10609310.19 -10609310.02 -10609309.83 0.0272 0.0184
 Uranus -33760-04-30 03:50 J -10609297.37 -10609297.34 -10609297.31 0.0145 0.0143
 Saturn -33746-10-19 07:55 J -10604012.23 -10604012.17 -10604012.08 0.0287 0.0273
 Saturn -33745-11-01 03:21 J -10603633.41 -10603633.36 -10603633.31 0.0286 0.0279
 Saturn -33730-04-25 01:55 J -10598345.66 -10598345.42 -10598345.18 0.0273 0.0085
 Mars -33722-03-08 05:59 J -10595471.43 -10595471.25 -10595471.07 0.1736 0.0339
 Uranus -33722-10-25 21:07 J -10595239.84 -10595239.62 -10595239.36 0.0134 0.0054
 Uranus -33721-10-29 00:43 J -10594870.70 -10594870.47 -10594870.23 0.0134 0.0045
 Saturn -33716-10-26 21:50 J -10593046.83 -10593046.59 -10593046.35 0.0287 0.0046
 Jupiter -33711-09-30 21:07 J -10591246.84 -10591246.62 -10591246.39 0.0501 0.0101
 Neptune -33705-03-21 21:07 J -10589247.78 -10589247.62 -10589247.42 0.0089 0.0065
 Jupiter -33705-03-27 23:16 J -10589241.72 -10589241.53 -10589241.33 0.0527 0.0282
 Neptune -33704-03-24 07:11 J -10588880.43 -10588880.20 -10588879.94 0.0089 0.0016
 Neptune -33703-03-26 16:47 J -10588513.05 -10588512.80 -10588512.53 0.0089 0.0019
 Neptune -33702-03-29 06:57 J -10588145.34 -10588145.21 -10588145.03 0.0089 0.0070
 Saturn -33701-04-19 00:57 J -10587758.66 -10587758.46 -10587758.24 0.0272 0.0125
 Jupiter -33699-10-05 07:26 J -10586859.32 -10586859.19 -10586859.06 0.0504 0.0425
 Jupiter -33693-04-01 13:40 J -10584854.10 -10584853.93 -10584853.74 0.0525 0.0338
 Saturn -33687-10-20 16:33 J -10582460.97 -10582460.81 -10582460.62 0.0287 0.0205
 Uranus -33678-04-21 11:02 J -10579356.22 -10579356.04 -10579355.83 0.0144 0.0096
 Uranus -33677-04-25 08:38 J -10578986.38 -10578986.14 -10578985.90 0.0145 0.0016
 Saturn -33671-04-26 07:11 J -10576794.39 -10576794.20 -10576793.98 0.0273 0.0144
 Mars -33669-09-04 13:26 J -10575932.02 -10575931.94 -10575931.85 0.1793 0.1642
 Saturn -33657-10-28 13:26 J -10571495.16 -10571494.94 -10571494.70 0.0287 0.0115

Saturn -33642-04-21 14:52 J -10566207.12 -10566206.88 -10566206.65 0.0272 0.0065
 Uranus -33638-10-26 05:16 J -10564558.52 -10564558.28 -10564558.03 0.0134 0.0050
 Uranus -33637-10-29 09:07 J -10564189.33 -10564189.12 -10564188.87 0.0134 0.0053
 Pluto -33633-05-25 14:38 J -10562885.15 -10562884.89 -10562884.62 0.0067 0.0003
 Jupiter -33628-09-29 20:23 J -10560931.88 -10560931.65 -10560931.42 0.0501 0.0183
 Saturn -33628-10-22 05:59 J -10560909.46 -10560909.25 -10560909.03 0.0286 0.0138
 Neptune -33623-09-23 06:43 J -10559112.38 -10559112.22 -10559112.01 0.0088 0.0060
 Jupiter -33622-03-27 14:23 J -10558927.04 -10558926.90 -10558926.74 0.0527 0.0399
 Neptune -33622-09-25 20:09 J -10558744.91 -10558744.66 -10558744.38 0.0088 0.0013
 Neptune -33621-09-27 09:50 J -10558377.33 -10558377.09 -10558376.84 0.0088 0.0022
 Neptune -33620-09-29 17:31 J -10558009.91 -10558009.77 -10558009.58 0.0088 0.0069
 Jupiter -33616-10-04 12:14 J -10556544.15 -10556543.99 -10556543.83 0.0503 0.0358
 Saturn -33613-04-15 08:52 J -10555620.15 -10555620.13 -10555620.08 0.0273 0.0270
 Saturn -33612-04-27 17:31 J -10555242.92 -10555242.77 -10555242.60 0.0273 0.0200
 Jupiter -33610-04-01 15:21 J -10554539.06 -10554538.86 -10554538.65 0.0525 0.0216
 Saturn -33598-10-31 00:28 J -10549943.67 -10549943.48 -10549943.28 0.0287 0.0184
 Uranus -33594-04-21 17:59 J -10548674.91 -10548674.75 -10548674.56 0.0144 0.0105
 Uranus -33593-04-25 16:33 J -10548305.04 -10548304.81 -10548304.57 0.0145 0.0033
 Mars -33590-09-08 22:47 J -10547073.71 -10547073.55 -10547073.38 0.1788 0.0966
 Saturn -33583-04-22 22:19 J -10544655.83 -10544655.57 -10544655.32 0.0272 0.0008
 Saturn -33569-10-23 23:59 J -10539357.73 -10539357.50 -10539357.27 0.0286 0.0069
 Saturn -33554-04-17 18:14 J -10534068.87 -10534068.74 -10534068.60 0.0273 0.0219
 Uranus -33554-10-26 12:57 J -10533877.21 -10533876.96 -10533876.72 0.0134 0.0049
 Saturn -33553-04-29 05:59 J -10533691.33 -10533691.25 -10533691.17 0.0273 0.0254
 Uranus -33553-10-29 17:45 J -10533507.98 -10533507.76 -10533507.52 0.0134 0.0052
 Pluto -33547-11-28 23:31 J -10531286.76 -10531286.52 -10531286.25 0.0077 0.0021
 Jupiter -33545-09-28 22:19 J -10530616.76 -10530616.57 -10530616.38 0.0500 0.0274
 Neptune -33541-03-21 07:11 J -10529347.27 -10529347.20 -10529347.09 0.0089 0.0083
 Neptune -33540-03-23 16:33 J -10528980.03 -10528979.81 -10528979.56 0.0089 0.0037
 Neptune -33539-03-26 08:23 J -10528612.40 -10528612.15 -10528611.90 0.0089 0.0001

Jupiter -33539-03-26 18:28 J -10528611.78 -10528611.73 -10528611.67 0.0529 0.0511
 Saturn -33539-11-01 10:19 J -10528392.18 -10528392.07 -10528391.94 0.0287 0.0253
 Neptune -33538-03-28 13:40 J -10528245.14 -10528244.93 -10528244.70 0.0089 0.0047
 Neptune -33537-03-30 07:11 J -10527877.25 -10527877.20 -10527877.10 0.0089 0.0085
 Jupiter -33533-10-03 14:52 J -10526229.08 -10526228.88 -10526228.67 0.0502 0.0262
 Jupiter -33527-03-31 14:23 J -10524224.13 -10524223.90 -10524223.66 0.0527 0.0119
 Saturn -33524-04-24 01:40 J -10523104.67 -10523104.43 -10523104.18 0.0272 0.0048
 Mars -33517-03-05 00:14 J -10520597.60 -10520597.49 -10520597.38 0.1724 0.1420
 Uranus -33510-04-22 03:07 J -10517993.56 -10517993.37 -10517993.15 0.0144 0.0088
 Saturn -33510-10-26 16:47 J -10517806.04 -10517805.80 -10517805.56 0.0286 0.0004
 Uranus -33509-04-26 02:38 J -10517623.62 -10517623.39 -10517623.14 0.0145 0.0024
 Saturn -33495-04-19 04:04 J -10512517.51 -10512517.33 -10512517.14 0.0273 0.0167
 Saturn -33481-10-19 23:16 J -10507219.64 -10507219.53 -10507219.38 0.0287 0.0246
 Uranus -33470-10-26 20:52 J -10503195.87 -10503195.63 -10503195.36 0.0134 0.0043
 Uranus -33469-10-30 03:07 J -10502826.59 -10502826.37 -10502826.14 0.0134 0.0058
 Saturn -33465-04-25 07:26 J -10501553.41 -10501553.19 -10501552.96 0.0272 0.0100
 Jupiter -33462-09-29 03:21 J -10500301.53 -10500301.36 -10500301.19 0.0500 0.0360
 Neptune -33459-09-22 17:59 J -10499211.85 -10499211.75 -10499211.63 0.0088 0.0079
 Neptune -33458-09-25 08:09 J -10498844.38 -10498844.16 -10498843.91 0.0088 0.0032
 Neptune -33457-09-26 16:19 J -10498477.08 -10498476.82 -10498476.55 0.0088 0.0003
 Neptune -33456-09-29 10:19 J -10498109.26 -10498109.07 -10498108.84 0.0088 0.0051
 Neptune -33455-10-01 15:21 J -10497741.90 -10497741.86 -10497741.77 0.0088 0.0086
 Saturn -33451-10-28 04:19 J -10496254.57 -10496254.32 -10496254.07 0.0286 0.0058
 Jupiter -33450-10-03 13:26 J -10495914.15 -10495913.94 -10495913.72 0.0502 0.0180
 Jupiter -33444-03-30 16:47 J -10493909.02 -10493908.80 -10493908.57 0.0527 0.0032
 Mars -33438-03-08 16:47 J -10491740.01 -10491739.80 -10491739.60 0.1729 0.0182
 Saturn -33436-04-20 09:35 J -10490966.32 -10490966.10 -10490965.87 0.0273 0.0119
 Uranus -33426-04-22 11:02 J -10487312.22 -10487312.04 -10487311.83 0.0144 0.0096
 Uranus -33425-04-26 11:59 J -10486942.23 -10486942.00 -10486941.76 0.0145 0.0042
 Saturn -33422-10-22 09:50 J -10485668.27 -10485668.09 -10485667.91 0.0287 0.0185

Saturn -33406-04-27 15:35 J -10480002.04 -10480001.85 -10480001.65 0.0272 0.0147
 Saturn -33392-10-29 09:21 J -10474703.34 -10474703.11 -10474702.88 0.0287 0.0121
 Uranus -33386-10-27 04:47 J -10472514.55 -10472514.30 -10472514.04 0.0134 0.0043
 Pluto -33385-05-26 19:11 J -10472301.87 -10472301.70 -10472301.50 0.0067 0.0047
 Uranus -33385-10-30 11:59 J -10472145.21 -10472145.00 -10472144.77 0.0134 0.0060
 Pluto -33384-05-28 04:19 J -10471935.49 -10471935.32 -10471935.12 0.0067 0.0046
 Jupiter -33379-09-28 04:47 J -10469986.41 -10469986.30 -10469986.18 0.0500 0.0431
 Saturn -33377-04-21 08:38 J -10469415.38 -10469415.14 -10469414.89 0.0272 0.0072
 Neptune -33376-03-23 08:23 J -10469079.30 -10469079.15 -10469078.95 0.0089 0.0063
 Neptune -33375-03-25 13:40 J -10468712.18 -10468711.93 -10468711.67 0.0089 0.0013
 Neptune -33374-03-28 07:40 J -10468344.42 -10468344.18 -10468343.93 0.0089 0.0021
 Neptune -33373-03-29 11:59 J -10467977.14 -10467977.00 -10467976.84 0.0089 0.0072
 Jupiter -33367-10-03 01:55 J -10465598.65 -10465598.42 -10465598.19 0.0501 0.0115
 Saturn -33363-10-23 21:07 J -10464116.82 -10464116.62 -10464116.39 0.0287 0.0126
 Jupiter -33361-03-29 20:09 J -10463593.89 -10463593.66 -10463593.43 0.0528 0.0078
 Jupiter -33349-04-03 12:14 J -10459206.08 -10459205.99 -10459205.89 0.0526 0.0473
 Saturn -33347-04-28 21:21 J -10458450.77 -10458450.61 -10458450.43 0.0272 0.0195
 Uranus -33342-04-22 19:11 J -10456630.90 -10456630.70 -10456630.47 0.0144 0.0081
 Uranus -33341-04-26 21:35 J -10456260.84 -10456260.60 -10456260.36 0.0145 0.0031
 Saturn -33333-10-30 13:40 J -10453152.12 -10453151.93 -10453151.74 0.0287 0.0179
 Saturn -33318-04-23 06:43 J -10447864.46 -10447864.22 -10447863.98 0.0272 0.0026
 Mars -33306-09-08 06:43 J -10443343.43 -10443343.22 -10443343.01 0.1796 0.0022
 Saturn -33304-10-25 02:52 J -10442565.62 -10442565.38 -10442565.14 0.0288 0.0071
 Uranus -33302-10-27 13:26 J -10441833.19 -10441832.94 -10441832.67 0.0134 0.0034
 Uranus -33301-10-30 21:35 J -10441463.81 -10441463.60 -10441463.37 0.0134 0.0064
 Pluto -33299-11-29 23:45 J -10440703.69 -10440703.51 -10440703.27 0.0077 0.0044
 Jupiter -33296-09-27 19:26 J -10439670.73 -10439670.69 -10439670.64 0.0499 0.0486
 Neptune -33294-09-24 14:38 J -10438944.07 -10438943.89 -10438943.66 0.0088 0.0057
 Neptune -33293-09-26 09:35 J -10438576.35 -10438576.10 -10438575.84 0.0088 0.0010
 Neptune -33292-09-28 14:38 J -10438209.13 -10438208.89 -10438208.63 0.0088 0.0026

Neptune -33291-10-01 09:07 J -10437841.24 -10437841.12 -10437840.95 0.0088 0.0073
 Saturn -33289-04-17 17:59 J -10437276.87 -10437276.75 -10437276.60 0.0271 0.0224
 Saturn -33288-04-29 20:52 J -10436899.74 -10436899.63 -10436899.50 0.0272 0.0237
 Jupiter -33284-10-02 00:28 J -10435283.72 -10435283.48 -10435283.24 0.0500 0.0043
 Jupiter -33278-03-29 22:04 J -10433278.79 -10433278.58 -10433278.36 0.0528 0.0153
 Saturn -33274-11-01 21:50 J -10431600.72 -10431600.59 -10431600.45 0.0287 0.0235
 Jupiter -33266-04-04 04:19 J -10428890.47 -10428890.32 -10428890.18 0.0526 0.0400
 Saturn -33259-04-24 09:35 J -10426313.34 -10426313.10 -10426312.86 0.0272 0.0017
 Uranus -33258-04-23 01:40 J -10425949.63 -10425949.43 -10425949.22 0.0144 0.0089
 Uranus -33257-04-27 04:47 J -10425579.53 -10425579.30 -10425579.06 0.0145 0.0048
 Saturn -33245-10-26 00:28 J -10421014.74 -10421014.48 -10421014.23 0.0288 0.0020
 Mars -33233-03-06 01:26 J -10416865.55 -10416865.44 -10416865.33 0.1718 0.1300
 Saturn -33230-04-19 17:02 J -10415725.98 -10415725.79 -10415725.60 0.0271 0.0180
 Uranus -33219-10-23 12:28 J -10411521.05 -10411520.98 -10411520.90 0.0134 0.0128
 Uranus -33218-10-27 21:21 J -10411151.86 -10411151.61 -10411151.35 0.0134 0.0036
 Uranus -33217-10-31 06:57 J -10410782.41 -10410782.21 -10410781.99 0.0134 0.0069
 Saturn -33216-10-19 23:45 J -10410428.54 -10410428.51 -10410428.46 0.0288 0.0283
 Saturn -33215-11-03 03:50 J -10410049.34 -10410049.34 -10410049.32 0.0287 0.0287
 Neptune -33212-03-22 13:11 J -10409179.03 -10409178.95 -10409178.82 0.0089 0.0082
 Neptune -33211-03-25 07:26 J -10408811.41 -10408811.19 -10408810.94 0.0089 0.0034
 Neptune -33210-03-27 12:14 J -10408444.24 -10408443.99 -10408443.74 0.0089 0.0003
 Neptune -33209-03-29 04:19 J -10408076.52 -10408076.32 -10408076.08 0.0089 0.0049
 Neptune -33208-03-31 12:28 J -10407709.04 -10407708.98 -10407708.93 0.0089 0.0087
 Jupiter -33201-10-01 16:04 J -10404968.06 -10404967.83 -10404967.60 0.0500 0.0006
 Saturn -33200-04-25 14:09 J -10404762.14 -10404761.91 -10404761.67 0.0272 0.0059
 Jupiter -33195-03-29 12:43 J -10402963.18 -10402962.97 -10402962.76 0.0529 0.0227
 Saturn -33186-10-27 21:50 J -10399463.84 -10399463.59 -10399463.34 0.0288 0.0030
 Jupiter -33183-04-02 22:33 J -10398575.75 -10398575.56 -10398575.35 0.0527 0.0286
 Uranus -33174-04-23 08:52 J -10395268.35 -10395268.13 -10395267.91 0.0144 0.0078
 Uranus -33173-04-27 12:57 J -10394898.20 -10394897.96 -10394897.72 0.0145 0.0036

Saturn -33171-04-20 13:26 J -10394175.16 -10394174.94 -10394174.73 0.0271 0.0136
 Saturn -33157-10-21 03:50 J -10388877.47 -10388877.34 -10388877.19 0.0288 0.0235
 Mars -33154-03-09 04:19 J -10388008.50 -10388008.32 -10388008.13 0.1722 0.0033
 Saturn -33141-04-26 14:09 J -10383211.14 -10383210.91 -10383210.67 0.0272 0.0101
 Pluto -33136-05-29 05:59 J -10381352.51 -10381352.25 -10381351.97 0.0067 0.0007
 Uranus -33134-10-28 06:28 J -10380470.49 -10380470.23 -10380469.97 0.0134 0.0024
 Uranus -33133-10-31 17:02 J -10380100.99 -10380100.79 -10380100.57 0.0134 0.0071
 Neptune -33130-09-24 06:28 J -10379043.32 -10379043.23 -10379043.09 0.0088 0.0079
 Neptune -33129-09-25 12:14 J -10378676.23 -10378675.99 -10378675.74 0.0088 0.0029
 Neptune -33128-09-28 07:11 J -10378308.46 -10378308.20 -10378307.93 0.0088 0.0005
 Neptune -33127-09-30 14:09 J -10377941.10 -10377940.91 -10377940.70 0.0088 0.0053
 Saturn -33127-10-28 23:02 J -10377912.77 -10377912.54 -10377912.31 0.0288 0.0075
 Neptune -33126-10-03 06:14 J -10377573.26 -10377573.24 -10377573.21 0.0088 0.0088
 Jupiter -33118-10-01 23:45 J -10374652.75 -10374652.51 -10374652.26 0.0500 0.0051
 Jupiter -33112-03-28 05:59 J -10372648.42 -10372648.25 -10372648.07 0.0530 0.0344
 Saturn -33112-04-21 14:23 J -10372624.12 -10372623.90 -10372623.67 0.0271 0.0093
 Jupiter -33106-10-06 11:45 J -10370265.12 -10370265.01 -10370264.89 0.0501 0.0433
 Jupiter -33100-04-02 11:16 J -10368260.24 -10368260.03 -10368259.83 0.0528 0.0211
 Saturn -33098-10-23 03:35 J -10367326.55 -10367326.35 -10367326.16 0.0288 0.0184
 Uranus -33090-04-23 15:35 J -10364587.05 -10364586.85 -10364586.64 0.0144 0.0083
 Uranus -33089-04-27 20:23 J -10364216.87 -10364216.65 -10364216.41 0.0145 0.0052
 Saturn -33082-04-28 11:02 J -10361660.25 -10361660.04 -10361659.82 0.0271 0.0142
 Saturn -33068-10-30 03:21 J -10356361.57 -10356361.36 -10356361.14 0.0288 0.0124
 Saturn -33053-04-22 19:55 J -10351072.90 -10351072.67 -10351072.43 0.0271 0.0049
 Uranus -33051-10-24 07:55 J -10350158.27 -10350158.17 -10350158.05 0.0135 0.0119
 Uranus -33050-10-28 14:38 J -10349789.15 -10349788.89 -10349788.63 0.0134 0.0029
 Pluto -33050-12-02 17:31 J -10349754.03 -10349753.77 -10349753.50 0.0077 0.0013
 Uranus -33049-11-01 02:38 J -10349419.58 -10349419.39 -10349419.18 0.0134 0.0079
 Neptune -33047-03-24 11:59 J -10348911.16 -10348911.00 -10348910.79 0.0089 0.0061
 Neptune -33046-03-27 04:04 J -10348543.59 -10348543.33 -10348543.07 0.0089 0.0012

Neptune -33045-03-28 11:45 J -10348176.23 -10348176.01 -10348175.76 0.0089 0.0023
 Neptune -33044-03-30 23:02 J -10347808.67 -10347808.54 -10347808.36 0.0089 0.0073
 Saturn -33039-10-24 01:11 J -10345775.68 -10345775.45 -10345775.23 0.0288 0.0131
 Jupiter -33035-10-01 05:45 J -10344337.48 -10344337.26 -10344337.04 0.0499 0.0121
 Jupiter -33029-03-27 20:23 J -10342332.79 -10342332.65 -10342332.51 0.0530 0.0413
 Saturn -33024-04-17 11:59 J -10340486.05 -10340486.00 -10340485.93 0.0271 0.0262
 Saturn -33023-04-29 12:14 J -10340109.15 -10340108.99 -10340108.81 0.0271 0.0190
 Jupiter -33023-10-05 23:31 J -10339949.68 -10339949.52 -10339949.35 0.0501 0.0363
 Mars -33022-09-08 06:57 J -10339612.38 -10339612.21 -10339612.04 0.1804 0.0667
 Jupiter -33017-04-01 17:31 J -10337945.00 -10337944.77 -10337944.54 0.0528 0.0134
 Saturn -33009-10-31 06:14 J -10334810.44 -10334810.24 -10334810.04 0.0288 0.0174
 Uranus -33006-04-24 00:57 J -10333905.67 -10333905.46 -10333905.23 0.0144 0.0071
 Uranus -33005-04-28 06:28 J -10333535.46 -10333535.23 -10333534.98 0.0145 0.0044

33RD MILLENNIUM BCE

This is a list of transits of Moon in the 33rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-32994-04-25 01:40 J	-10329521.68	-10329521.43	-10329521.19	0.0271	0.0001		
Saturn	-32980-10-25 05:45 J	-10324224.48	-10324224.26	-10324224.02	0.0288	0.0078		
Uranus	-32967-10-24 18:28 J	-10319476.80	-10319476.73	-10319476.64	0.0135	0.0127		
Uranus	-32966-10-29 00:28 J	-10319107.74	-10319107.48	-10319107.22	0.0134	0.0014		
Saturn	-32965-04-18 13:40 J	-10318935.07	-10318934.93	-10318934.78	0.0271	0.0213		
Neptune	-32965-09-25 03:50 J	-10318775.53	-10318775.34	-10318775.12	0.0088	0.0056		

Uranus -32965-11-01 13:26 J -10318738.13 -10318737.94 -10318737.74 0.0134 0.0079
 Saturn -32964-04-30 19:40 J -10318557.77 -10318557.68 -10318557.56 0.0271 0.0239
 Neptune -32964-09-27 11:45 J -10318408.26 -10318408.01 -10318407.76 0.0088 0.0010
 Neptune -32963-09-30 02:23 J -10318040.65 -10318040.40 -10318040.14 0.0088 0.0028
 Neptune -32962-10-02 13:40 J -10317673.04 -10317672.93 -10317672.77 0.0088 0.0074
 Jupiter -32952-09-30 18:14 J -10314021.97 -10314021.74 -10314021.51 0.0499 0.0177
 Saturn -32950-11-02 05:16 J -10313259.42 -10313259.28 -10313259.11 0.0288 0.0229
 Mars -32949-03-07 02:52 J -10313133.52 -10313133.38 -10313133.23 0.1712 0.1105
 Jupiter -32946-03-27 17:16 J -10312017.79 -10312017.78 -10312017.75 0.0530 0.0527
 Jupiter -32940-10-05 02:38 J -10309634.57 -10309634.39 -10309634.19 0.0501 0.0295
 Saturn -32935-04-26 03:21 J -10307970.60 -10307970.36 -10307970.11 0.0271 0.0048
 Jupiter -32934-04-01 13:55 J -10307630.14 -10307629.92 -10307629.70 0.0528 0.0011
 Uranus -32922-04-24 11:02 J -10303224.25 -10303224.04 -10303223.81 0.0144 0.0071
 Uranus -32921-04-28 16:47 J -10302854.01 -10302853.80 -10302853.56 0.0145 0.0063
 Saturn -32921-10-26 17:02 J -10302673.02 -10302672.79 -10302672.55 0.0288 0.0020
 Saturn -32906-04-20 23:02 J -10297383.73 -10297383.54 -10297383.36 0.0271 0.0163
 Saturn -32892-10-20 08:23 J -10292087.18 -10292087.15 -10292087.10 0.0288 0.0283
 Saturn -32891-11-03 10:04 J -10291708.08 -10291708.08 -10291708.07 0.0288 0.0288
 Pluto -32888-05-30 04:47 J -10290769.47 -10290769.30 -10290769.13 0.0067 0.0049
 Pluto -32887-05-31 18:28 J -10290402.93 -10290402.73 -10290402.52 0.0067 0.0044
 Neptune -32883-03-24 02:23 J -10289010.47 -10289010.40 -10289010.25 0.0089 0.0082
 Uranus -32883-10-25 05:02 J -10288795.42 -10288795.29 -10288795.13 0.0134 0.0108
 Neptune -32882-03-26 11:45 J -10288643.22 -10288643.01 -10288642.77 0.0089 0.0034
 Uranus -32882-10-29 10:04 J -10288426.34 -10288426.08 -10288425.82 0.0134 0.0019
 Neptune -32881-03-27 22:47 J -10288275.82 -10288275.55 -10288275.29 0.0089 0.0003
 Uranus -32881-11-02 00:14 J -10288056.67 -10288056.49 -10288056.30 0.0134 0.0090
 Neptune -32880-03-30 11:31 J -10287908.20 -10287908.02 -10287907.79 0.0089 0.0052
 Neptune -32879-04-01 17:31 J -10287540.81 -10287540.77 -10287540.68 0.0089 0.0087
 Saturn -32876-04-27 05:02 J -10286419.52 -10286419.29 -10286419.05 0.0271 0.0098
 Mars -32870-03-10 09:07 J -10284276.30 -10284276.12 -10284275.94 0.1716 0.0210

Jupiter -32869-09-29 15:35 J -10283707.04 -10283706.85 -10283706.65 0.0498 0.0263
 Saturn -32862-10-29 04:33 J -10281121.55 -10281121.31 -10281121.06 0.0288 0.0043
 Jupiter -32857-10-04 11:59 J -10279319.22 -10279319.00 -10279318.79 0.0500 0.0197
 Jupiter -32851-03-31 23:02 J -10277314.78 -10277314.54 -10277314.31 0.0529 0.0076
 Saturn -32847-04-22 10:33 J -10275832.28 -10275832.06 -10275831.84 0.0271 0.0110
 Jupiter -32839-04-05 15:07 J -10272926.87 -10272926.87 -10272926.86 0.0527 0.0526
 Uranus -32838-04-24 22:19 J -10272542.79 -10272542.57 -10272542.34 0.0144 0.0059
 Uranus -32837-04-29 04:19 J -10272172.55 -10272172.32 -10272172.08 0.0145 0.0056
 Saturn -32833-10-21 17:59 J -10270535.91 -10270535.75 -10270535.60 0.0288 0.0222
 Saturn -32817-04-28 13:40 J -10264868.13 -10264867.93 -10264867.73 0.0271 0.0150
 Saturn -32803-10-30 13:55 J -10259570.16 -10259569.92 -10259569.69 0.0288 0.0107
 Pluto -32802-12-03 11:16 J -10259171.23 -10259171.03 -10259170.80 0.0077 0.0039
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 Uranus -32798-10-29 21:21 J -10257744.88 -10257744.61 -10257744.35 0.0134 0.0003
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 Jupiter -32786-09-30 01:26 J -10253391.59 -10253391.44 -10253391.26 0.0498 0.0350
 Jupiter -32774-10-04 09:50 J -10249004.33 -10249004.09 -10249003.86 0.0500 0.0113
 Saturn -32774-10-24 09:50 J -10248984.28 -10248984.09 -10248983.89 0.0288 0.0157
 Jupiter -32768-03-30 15:21 J -10247000.07 -10246999.86 -10246999.65 0.0529 0.0198
 Saturn -32759-04-18 17:16 J -10243693.85 -10243693.78 -10243693.69 0.0272 0.0254
 Saturn -32758-05-01 01:55 J -10243316.57 -10243316.42 -10243316.25 0.0272 0.0203
 Jupiter -32756-04-04 18:28 J -10242611.87 -10242611.73 -10242611.58 0.0527 0.0403
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 Saturn -32729-04-25 00:43 J -10232729.72 -10232729.47 -10232729.22 0.0271 0.0002
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 Saturn -32715-10-26 03:50 J -10227432.57 -10227432.34 -10227432.10 0.0288 0.0085
 Uranus -32715-10-26 03:50 J -10227432.49 -10227432.34 -10227432.14 0.0134 0.0095 *
 Uranus -32714-10-30 07:55 J -10227063.43 -10227063.17 -10227062.91 0.0134 0.0007
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 Jupiter -32703-09-28 23:16 J -10223076.66 -10223076.53 -10223076.41 0.0498 0.0428
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 Saturn -32685-11-02 14:09 J -10216467.02 -10216466.91 -10216466.78 0.0288 0.0246
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 Mars -32659-09-11 07:55 J -10207023.22 -10207023.17 -10207023.11 0.1807 0.1717
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 Neptune -32633-10-02 14:09 J -10197505.04 -10197504.91 -10197504.74 0.0088 0.0072

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 Uranus -32630-10-30 19:40 J -10196381.93 -10196381.68 -10196381.42 0.0134 0.0012
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 Saturn -32627-10-22 02:09 J -10195294.50 -10195294.41 -10195294.29 0.0288 0.0260
 Saturn -32611-04-28 18:43 J -10189626.93 -10189626.72 -10189626.50 0.0271 0.0113
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 Jupiter -32602-03-29 16:33 J -10186369.95 -10186369.81 -10186369.66 0.0531 0.0415
 Saturn -32597-10-29 05:02 J -10184329.54 -10184329.29 -10184329.04 0.0288 0.0054
 Jupiter -32596-10-07 04:47 J -10183986.42 -10183986.30 -10183986.18 0.0501 0.0423
 Jupiter -32590-04-03 19:26 J -10181981.89 -10181981.69 -10181981.48 0.0528 0.0205
 Mars -32586-03-11 05:31 J -10180544.46 -10180544.27 -10180544.07 0.1710 0.0262
 Uranus -32586-04-26 01:40 J -10180498.66 -10180498.43 -10180498.20 0.0144 0.0050
 Uranus -32585-04-30 05:59 J -10180128.44 -10180128.25 -10180128.02 0.0145 0.0080
 Saturn -32582-04-23 20:23 J -10179039.88 -10179039.65 -10179039.41 0.0272 0.0097
 Saturn -32568-10-23 19:40 J -10173742.85 -10173742.68 -10173742.50 0.0288 0.0193
 Neptune -32554-03-25 09:35 J -10168842.18 -10168842.10 -10168842.01 0.0089 0.0084
 Neptune -32553-03-26 14:23 J -10168475.12 -10168474.90 -10168474.64 0.0089 0.0035
 Pluto -32553-12-05 12:57 J -10168221.17 -10168220.96 -10168220.71 0.0077 0.0032
 Neptune -32552-03-29 08:23 J -10168107.41 -10168107.15 -10168106.90 0.0089 0.0002
 Saturn -32552-04-30 06:14 J -10168075.42 -10168075.24 -10168075.05 0.0271 0.0165
 Neptune -32551-03-31 12:14 J -10167740.19 -10167739.99 -10167739.77 0.0089 0.0050
 Neptune -32550-04-03 05:31 J -10167372.34 -10167372.27 -10167372.20 0.0089 0.0086
 Uranus -32547-10-27 04:04 J -10166069.52 -10166069.33 -10166069.11 0.0134 0.0080
 Uranus -32546-10-31 07:11 J -10165700.46 -10165700.20 -10165699.94 0.0134 0.0007
 Uranus -32545-11-03 23:16 J -10165330.65 -10165330.53 -10165330.40 0.0134 0.0116
 Saturn -32538-10-31 15:07 J -10162778.09 -10162777.87 -10162777.64 0.0288 0.0120
 Jupiter -32525-10-01 19:26 J -10158058.91 -10158058.69 -10158058.47 0.0498 0.0154
 Saturn -32523-04-24 21:21 J -10157488.86 -10157488.61 -10157488.37 0.0271 0.0051
 Jupiter -32519-03-28 22:47 J -10156054.59 -10156054.55 -10156054.50 0.0531 0.0519
 Jupiter -32513-10-06 12:14 J -10153671.16 -10153670.99 -10153670.81 0.0500 0.0347

Saturn -32509-10-25 08:09 J -10152191.37 -10152191.16 -10152190.93 0.0288 0.0129
 Jupiter -32507-04-02 14:38 J -10151667.12 -10151666.89 -10151666.65 0.0529 0.0088
 Uranus -32502-04-26 11:59 J -10149817.24 -10149817.00 -10149816.77 0.0144 0.0044
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 Saturn -32494-04-20 08:52 J -10146901.22 -10146901.13 -10146901.03 0.0271 0.0245
 Saturn -32493-05-01 11:16 J -10146524.18 -10146524.03 -10146523.87 0.0271 0.0211
 Saturn -32479-11-02 04:19 J -10141226.49 -10141226.32 -10141226.12 0.0288 0.0181
 Neptune -32472-09-25 09:50 J -10138707.17 -10138707.09 -10138706.98 0.0088 0.0081
 Neptune -32471-09-28 04:04 J -10138339.55 -10138339.33 -10138339.07 0.0088 0.0031
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 Neptune -32469-10-02 04:19 J -10137604.51 -10137604.32 -10137604.08 0.0088 0.0053
 Neptune -32468-10-04 10:19 J -10137237.11 -10137237.07 -10137236.98 0.0088 0.0085
 Saturn -32464-04-26 01:26 J -10135937.67 -10135937.44 -10135937.20 0.0271 0.0006
 Uranus -32463-10-27 15:50 J -10135388.01 -10135387.84 -10135387.62 0.0134 0.0088
 Uranus -32462-10-31 19:11 J -10135018.95 -10135018.70 -10135018.45 0.0134 0.0026
 Uranus -32461-11-04 11:16 J -10134649.14 -10134649.03 -10134648.89 0.0134 0.0115
 Saturn -32450-10-27 12:57 J -10130640.20 -10130639.96 -10130639.70 0.0289 0.0073
 Jupiter -32442-10-02 05:02 J -10127743.50 -10127743.29 -10127743.07 0.0497 0.0231
 Saturn -32435-04-21 12:28 J -10125350.14 -10125349.98 -10125349.80 0.0270 0.0197
 Saturn -32434-05-03 09:50 J -10124973.17 -10124973.09 -10124973.00 0.0271 0.0253
 Jupiter -32430-10-06 09:50 J -10123356.28 -10123356.09 -10123355.89 0.0499 0.0266
 Jupiter -32424-04-01 19:40 J -10121351.90 -10121351.68 -10121351.46 0.0530 0.0020
 Saturn -32420-11-03 16:04 J -10119674.96 -10119674.83 -10119674.69 0.0288 0.0238
 Uranus -32418-04-26 22:47 J -10119135.79 -10119135.55 -10119135.31 0.0144 0.0039
 Uranus -32417-05-01 01:55 J -10118765.62 -10118765.42 -10118765.21 0.0145 0.0089
 Saturn -32405-04-27 07:26 J -10114386.43 -10114386.19 -10114385.96 0.0271 0.0037
 Pluto -32391-06-02 21:21 J -10109236.84 -10109236.61 -10109236.38 0.0067 0.0034
 Saturn -32391-10-28 14:09 J -10109089.16 -10109088.91 -10109088.66 0.0289 0.0018
 Pluto -32390-06-04 18:43 J -10108869.79 -10108869.72 -10108869.58 0.0068 0.0062
 Neptune -32389-03-26 04:33 J -10108574.46 -10108574.31 -10108574.11 0.0089 0.0064

Neptune -32388-03-28 09:21 J -10108207.35 -10108207.11 -10108206.86 0.0089 0.0015
 Neptune -32387-03-31 02:23 J -10107839.65 -10107839.40 -10107839.14 0.0089 0.0021
 Neptune -32386-04-02 08:52 J -10107472.26 -10107472.13 -10107471.95 0.0089 0.0069
 Mars -32381-03-08 11:16 J -10105670.17 -10105670.03 -10105669.88 0.1700 0.0947
 Uranus -32379-10-28 04:33 J -10104706.51 -10104706.31 -10104706.07 0.0134 0.0066
 Uranus -32378-11-01 07:26 J -10104337.43 -10104337.19 -10104336.93 0.0134 0.0021
 Uranus -32377-11-04 23:45 J -10103967.56 -10103967.51 -10103967.45 0.0134 0.0130
 Saturn -32376-04-22 10:19 J -10103799.27 -10103799.07 -10103798.85 0.0270 0.0154
 Mars -32375-09-11 05:02 J -10103292.46 -10103292.29 -10103292.12 0.1815 0.1085
 Saturn -32362-10-22 17:16 J -10098502.80 -10098502.78 -10098502.73 0.0289 0.0286
 Jupiter -32359-10-01 04:33 J -10097428.48 -10097428.31 -10097428.12 0.0497 0.0307
 Jupiter -32347-10-06 02:38 J -10093040.60 -10093040.39 -10093040.18 0.0499 0.0213
 Saturn -32346-04-29 09:50 J -10092835.32 -10092835.09 -10092834.85 0.0271 0.0080
 Jupiter -32341-04-01 06:43 J -10091036.45 -10091036.22 -10091035.98 0.0530 0.0051
 Uranus -32334-04-27 11:59 J -10088454.23 -10088454.00 -10088453.75 0.0144 0.0030
 Uranus -32333-05-01 14:38 J -10088084.08 -10088083.89 -10088083.67 0.0145 0.0089
 Saturn -32332-10-29 16:33 J -10087538.05 -10087537.81 -10087537.57 0.0289 0.0032
 Jupiter -32329-04-05 17:02 J -10086648.83 -10086648.79 -10086648.74 0.0529 0.0517
 Saturn -32317-04-23 08:38 J -10082248.36 -10082248.14 -10082247.92 0.0270 0.0112
 Neptune -32307-09-27 02:38 J -10078439.57 -10078439.39 -10078439.19 0.0088 0.0059
 Neptune -32306-09-29 22:04 J -10078071.85 -10078071.58 -10078071.32 0.0088 0.0017
 Neptune -32305-10-01 04:33 J -10077704.55 -10077704.31 -10077704.06 0.0088 0.0023
 Pluto -32305-12-06 10:33 J -10077638.32 -10077638.06 -10077637.79 0.0077 0.0008
 Neptune -32304-10-03 20:23 J -10077336.80 -10077336.65 -10077336.46 0.0088 0.0067
 Saturn -32303-10-23 18:57 J -10076951.85 -10076951.71 -10076951.56 0.0289 0.0236
 Mars -32302-03-11 16:33 J -10076813.00 -10076812.81 -10076812.62 0.1704 0.0182
 Uranus -32295-10-28 17:31 J -10074024.98 -10074024.77 -10074024.54 0.0134 0.0071
 Uranus -32294-11-01 20:23 J -10073655.88 -10073655.65 -10073655.39 0.0134 0.0042
 Uranus -32293-11-05 12:57 J -10073286.02 -10073285.96 -10073285.89 0.0134 0.0129
 Saturn -32287-04-30 06:43 J -10071284.44 -10071284.22 -10071283.99 0.0271 0.0121

Jupiter -32276-09-30 23:02 J -10067112.70 -10067112.54 -10067112.37 0.0496 0.0356
 Saturn -32273-10-30 21:35 J -10065986.83 -10065986.60 -10065986.37 0.0289 0.0077
 Jupiter -32264-10-05 05:45 J -10062725.48 -10062725.26 -10062725.03 0.0498 0.0162
 Jupiter -32258-03-31 23:59 J -10060721.71 -10060721.50 -10060721.28 0.0531 0.0165
 Saturn -32258-04-25 11:31 J -10060697.25 -10060697.02 -10060696.79 0.0270 0.0072
 Uranus -32250-04-27 23:31 J -10057772.75 -10057772.52 -10057772.27 0.0144 0.0024
 Uranus -32249-05-02 01:11 J -10057402.61 -10057402.45 -10057402.25 0.0145 0.0104
 Jupiter -32246-04-06 08:52 J -10056333.25 -10056333.13 -10056333.01 0.0529 0.0446
 Saturn -32244-10-24 14:52 J -10055401.05 -10055400.88 -10055400.68 0.0289 0.0193
 Saturn -32228-05-01 02:52 J -10049733.57 -10049733.38 -10049733.17 0.0270 0.0160
 Neptune -32225-03-25 05:59 J -10048674.26 -10048674.25 -10048674.20 0.0089 0.0089
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 Neptune -32221-04-03 05:45 J -10047204.33 -10047204.26 -10047204.15 0.0089 0.0082
 Saturn -32214-11-01 22:47 J -10044435.77 -10044435.55 -10044435.32 0.0289 0.0121
 Uranus -32211-10-29 07:11 J -10043343.43 -10043343.20 -10043342.95 0.0134 0.0049
 Uranus -32210-11-02 10:04 J -10042974.31 -10042974.08 -10042973.83 0.0134 0.0037
 Saturn -32199-04-26 16:04 J -10039146.07 -10039145.83 -10039145.59 0.0270 0.0032
 Jupiter -32193-09-29 23:45 J -10036797.63 -10036797.51 -10036797.37 0.0496 0.0417
 Saturn -32185-10-25 15:50 J -10033850.04 -10033849.84 -10033849.62 0.0289 0.0148
 Jupiter -32181-10-04 17:59 J -10032409.97 -10032409.75 -10032409.52 0.0498 0.0109
 Jupiter -32175-03-31 17:59 J -10030405.96 -10030405.75 -10030405.54 0.0532 0.0217
 Saturn -32170-04-21 03:21 J -10028559.44 -10028559.36 -10028559.26 0.0270 0.0250
 Saturn -32169-05-02 05:02 J -10028182.44 -10028182.29 -10028182.13 0.0270 0.0203
 Uranus -32167-04-23 15:21 J -10027460.95 -10027460.86 -10027460.74 0.0144 0.0132
 Uranus -32166-04-28 12:14 J -10027091.23 -10027090.99 -10027090.75 0.0144 0.0016
 Uranus -32165-05-02 13:26 J -10026721.12 -10026720.94 -10026720.75 0.0145 0.0103
 Jupiter -32163-04-05 11:16 J -10026018.20 -10026018.03 -10026017.86 0.0529 0.0367
 Saturn -32155-11-02 17:59 J -10022884.96 -10022884.75 -10022884.53 0.0289 0.0161

Pluto -32143-06-04 07:40 J -10018653.25 -10018653.18 -10018653.05 0.0067 0.0061
 Neptune -32143-09-26 14:09 J -10018538.92 -10018538.91 -10018538.85 0.0088 0.0087
 Pluto -32142-06-05 16:47 J -10018287.03 -10018286.80 -10018286.56 0.0067 0.0029
 Neptune -32142-09-28 22:04 J -10018171.80 -10018171.58 -10018171.34 0.0088 0.0037
 Neptune -32141-09-30 13:11 J -10017804.22 -10017803.95 -10017803.68 0.0088 0.0003
 Saturn -32140-04-27 16:04 J -10017595.08 -10017594.83 -10017594.57 0.0270 0.0012
 Neptune -32140-10-03 00:14 J -10017436.69 -10017436.49 -10017436.27 0.0088 0.0047
 Neptune -32139-10-05 10:19 J -10017069.18 -10017069.07 -10017068.95 0.0088 0.0080
 Uranus -32127-10-29 20:09 J -10012661.88 -10012661.66 -10012661.41 0.0134 0.0055
 Saturn -32126-10-27 21:35 J -10012298.82 -10012298.60 -10012298.37 0.0289 0.0102
 Uranus -32126-11-02 23:45 J -10012292.73 -10012292.51 -10012292.27 0.0134 0.0058
 Saturn -32111-04-22 07:11 J -10007008.35 -10007008.20 -10007008.04 0.0270 0.0205
 Saturn -32110-05-04 11:45 J -10006631.09 -10006631.01 -10006630.91 0.0270 0.0248
 Jupiter -32110-09-30 13:55 J -10006481.99 -10006481.92 -10006481.85 0.0496 0.0470
 Jupiter -32098-10-05 04:04 J -10002094.57 -10002094.33 -10002094.08 0.0497 0.0068
 Mars -32097-03-09 21:07 J -10001937.79 -10001937.62 -10001937.45 0.1696 0.0603
 Saturn -32096-11-03 16:19 J -10001333.98 -10001333.82 -10001333.64 0.0289 0.0206
 Jupiter -32092-03-30 11:31 J -10000091.20 -10000091.02 -10000090.83 0.0532 0.0330
 Mars -32091-09-10 07:40 J -9999562.39 -9999562.18 -9999561.98 0.1824 0.0076
 Uranus -32083-04-24 00:28 J -9996779.54 -9996779.48 -9996779.38 0.0144 0.0137
 Uranus -32082-04-28 22:04 J -9996409.82 -9996409.58 -9996409.33 0.0144 0.0011
 Saturn -32081-04-28 13:55 J -9996044.17 -9996043.92 -9996043.67 0.0270 0.0054
 Uranus -32081-05-02 21:50 J -9996039.73 -9996039.59 -9996039.42 0.0145 0.0115
 Jupiter -32080-04-04 13:40 J -9995703.12 -9995702.93 -9995702.73 0.0530 0.0242
 Saturn -32067-10-29 03:35 J -9990747.59 -9990747.35 -9990747.11 0.0289 0.0051
 Neptune -32060-03-27 01:26 J -9988406.57 -9988406.44 -9988406.25 0.0089 0.0069
 Neptune -32059-03-29 12:57 J -9988039.20 -9988038.96 -9988038.69 0.0089 0.0021
 Neptune -32058-04-01 01:55 J -9987671.65 -9987671.42 -9987671.16 0.0089 0.0017
 Neptune -32057-04-02 07:55 J -9987304.33 -9987304.17 -9987303.96 0.0089 0.0063
 Pluto -32057-12-07 19:55 J -9987054.86 -9987054.67 -9987054.44 0.0077 0.0043

Saturn	-32052-04-23 15:07 J	-9985457.05	-9985456.87	-9985456.67	0.0270	0.0157
Uranus	-32043-10-30 10:19 J	-9981980.32	-9981980.07	-9981979.81	0.0134	0.0032
Uranus	-32042-11-03 13:40 J	-9981611.14	-9981610.93	-9981610.68	0.0134	0.0054
Saturn	-32037-11-04 21:35 J	-9979782.69	-9979782.60	-9979782.48	0.0289	0.0259
Saturn	-32022-04-30 17:02 J	-9974493.01	-9974492.79	-9974492.56	0.0270	0.0103
Mars	-32018-03-12 20:23 J	-9973080.82	-9973080.65	-9973080.48	0.1699	0.0432
Jupiter	-32015-10-04 06:43 J	-9971779.45	-9971779.22	-9971778.99	0.0497	0.0009
Jupiter	-32009-03-29 19:26 J	-9969775.82	-9969775.69	-9969775.55	0.0533	0.0421
Saturn	-32008-10-30 07:55 J	-9969196.43	-9969196.17	-9969195.92	0.0289	0.0006

32ND MILLENNIUM BCE

This is a list of transits of Moon in the 32nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-31999-04-24 10:47 J	-9966098.17	-9966098.05	-9966097.89	0.0144	0.0120		
Uranus	-31998-04-29 10:04 J	-9965728.32	-9965728.08	-9965727.84	0.0144	0.0006		
Jupiter	-31997-04-03 20:23 J	-9965387.87	-9965387.65	-9965387.42	0.0531	0.0159		
Uranus	-31997-05-03 09:07 J	-9965358.26	-9965358.12	-9965357.95	0.0145	0.0115		
Saturn	-31993-04-24 22:33 J	-9963905.78	-9963905.56	-9963905.33	0.0270	0.0104		
Saturn	-31979-10-23 22:33 J	-9958610.64	-9958610.56	-9958610.47	0.0289	0.0270		
Neptune	-31978-09-28 03:21 J	-9958271.51	-9958271.36	-9958271.15	0.0088	0.0065		
Neptune	-31977-09-29 17:02 J	-9957904.02	-9957903.79	-9957903.54	0.0088	0.0024		
Neptune	-31976-10-02 02:23 J	-9957536.65	-9957536.40	-9957536.13	0.0088	0.0018		
Neptune	-31975-10-04 19:26 J	-9957168.85	-9957168.69	-9957168.48	0.0088	0.0061		

Saturn	-31963-05-02 01:55 J	-9952941.60	-9952941.42	-9952941.22	0.0270	0.0157
Uranus	-31960-10-26 06:57 J	-9951668.29	-9951668.21	-9951668.10	0.0135	0.0125
Uranus	-31959-10-30 23:02 J	-9951298.78	-9951298.54	-9951298.27	0.0135	0.0038
Uranus	-31958-11-04 03:50 J	-9950929.54	-9950929.34	-9950929.13	0.0134	0.0075
Saturn	-31949-10-31 11:59 J	-9947645.24	-9947645.00	-9947644.75	0.0289	0.0064
Saturn	-31934-04-27 02:38 J	-9942354.63	-9942354.39	-9942354.14	0.0270	0.0052
Jupiter	-31932-10-03 17:02 J	-9941464.03	-9941463.79	-9941463.55	0.0496	0.0071
Jupiter	-31926-03-29 23:59 J	-9939460.58	-9939460.50	-9939460.42	0.0533	0.0501
Jupiter	-31920-10-08 00:28 J	-9937076.60	-9937076.48	-9937076.36	0.0498	0.0427
Saturn	-31920-10-25 12:43 J	-9937059.13	-9937058.97	-9937058.80	0.0289	0.0209
Uranus	-31915-04-24 21:07 J	-9935416.72	-9935416.62	-9935416.46	0.0144	0.0125
Jupiter	-31914-04-03 16:47 J	-9935073.02	-9935072.80	-9935072.57	0.0531	0.0044
Uranus	-31914-04-29 21:07 J	-9935046.86	-9935046.62	-9935046.37	0.0144	0.0004
Uranus	-31913-05-03 18:43 J	-9934676.83	-9934676.72	-9934676.58	0.0145	0.0126
Saturn	-31905-04-21 07:26 J	-9931767.27	-9931767.19	-9931767.10	0.0271	0.0252
Saturn	-31904-05-03 12:14 J	-9931390.14	-9931389.99	-9931389.83	0.0270	0.0210
Neptune	-31895-03-28 21:07 J	-9928138.82	-9928138.62	-9928138.40	0.0089	0.0044
Neptune	-31894-03-31 03:07 J	-9927771.62	-9927771.37	-9927771.11	0.0089	0.0010
Pluto	-31894-06-07 07:55 J	-9927703.43	-9927703.17	-9927702.90	0.0067	0.0007
Neptune	-31893-04-01 20:23 J	-9927403.86	-9927403.65	-9927403.41	0.0089	0.0041
Neptune	-31892-04-04 00:14 J	-9927036.61	-9927036.49	-9927036.34	0.0089	0.0076
Saturn	-31890-11-02 23:02 J	-9926093.75	-9926093.54	-9926093.32	0.0289	0.0129
Uranus	-31876-10-26 21:50 J	-9920986.66	-9920986.59	-9920986.50	0.0135	0.0127
Saturn	-31875-04-28 07:26 J	-9920803.44	-9920803.19	-9920802.95	0.0270	0.0005
Uranus	-31875-10-31 13:11 J	-9920617.21	-9920616.95	-9920616.69	0.0135	0.0014
Uranus	-31874-11-04 17:59 J	-9920247.95	-9920247.75	-9920247.53	0.0134	0.0072
Saturn	-31861-10-27 00:57 J	-9915507.68	-9915507.46	-9915507.24	0.0289	0.0144
Jupiter	-31849-10-02 15:21 J	-9911149.09	-9911148.86	-9911148.64	0.0496	0.0144
Saturn	-31846-04-23 18:43 J	-9910215.87	-9910215.72	-9910215.55	0.0271	0.0201
Saturn	-31845-05-04 18:57 J	-9909838.75	-9909838.71	-9909838.64	0.0271	0.0264

Jupiter	-31837-10-07 09:21 J	-9906761.28	-9906761.11	-9906760.94	0.0498	0.0334
Jupiter	-31831-04-02 20:09 J	-9904757.89	-9904757.66	-9904757.43	0.0532	0.0077
Uranus	-31831-04-25 11:31 J	-9904735.19	-9904735.02	-9904734.82	0.0144	0.0103
Saturn	-31831-11-04 16:47 J	-9904541.96	-9904541.80	-9904541.62	0.0289	0.0197
Uranus	-31830-04-30 12:28 J	-9904365.22	-9904364.98	-9904364.74	0.0144	0.0010
Uranus	-31829-05-04 09:35 J	-9903995.20	-9903995.10	-9903994.98	0.0145	0.0131
Jupiter	-31819-04-07 13:26 J	-9900370.02	-9900369.94	-9900369.84	0.0530	0.0489
Saturn	-31816-04-29 17:45 J	-9899251.99	-9899251.76	-9899251.52	0.0270	0.0059
Mars	-31813-03-10 16:04 J	-9898206.02	-9898205.83	-9898205.64	0.1690	0.0470
Neptune	-31813-09-28 16:04 J	-9898004.04	-9898003.83	-9898003.58	0.0088	0.0045
Neptune	-31812-10-01 10:47 J	-9897636.30	-9897636.05	-9897635.80	0.0088	0.0011
Neptune	-31811-10-03 15:50 J	-9897269.05	-9897268.84	-9897268.58	0.0088	0.0040
Neptune	-31810-10-06 11:31 J	-9896901.16	-9896901.02	-9896900.86	0.0088	0.0072
Pluto	-31809-12-08 20:09 J	-9896471.72	-9896471.66	-9896471.53	0.0077	0.0072
Pluto	-31808-12-11 04:47 J	-9896104.47	-9896104.30	-9896104.13	0.0076	0.0058
Mars	-31807-09-10 10:33 J	-9895831.23	-9895831.06	-9895830.89	0.1831	0.0827
Saturn	-31802-10-29 11:31 J	-9893956.26	-9893956.02	-9893955.77	0.0289	0.0076
Uranus	-31792-10-27 11:31 J	-9890305.15	-9890305.02	-9890304.85	0.0135	0.0107
Uranus	-31791-11-01 02:52 J	-9889935.64	-9889935.38	-9889935.12	0.0135	0.0019
Uranus	-31790-11-05 08:52 J	-9889566.31	-9889566.13	-9889565.95	0.0134	0.0094
Saturn	-31787-04-25 01:26 J	-9888664.64	-9888664.44	-9888664.22	0.0271	0.0147
Saturn	-31772-11-06 11:02 J	-9882990.13	-9882990.04	-9882989.94	0.0289	0.0266
Jupiter	-31766-10-02 23:16 J	-9880833.73	-9880833.53	-9880833.32	0.0495	0.0232
Saturn	-31757-05-01 07:26 J	-9877700.40	-9877700.19	-9877699.97	0.0270	0.0115
Jupiter	-31754-10-07 04:47 J	-9876446.51	-9876446.30	-9876446.08	0.0497	0.0232
Jupiter	-31748-04-01 16:33 J	-9874443.02	-9874442.81	-9874442.60	0.0532	0.0181
Uranus	-31747-04-26 01:26 J	-9874053.62	-9874053.44	-9874053.27	0.0144	0.0105
Uranus	-31746-05-01 02:23 J	-9873683.64	-9873683.40	-9873683.16	0.0144	0.0023
Uranus	-31745-05-04 21:50 J	-9873313.60	-9873313.59	-9873313.55	0.0145	0.0144
Saturn	-31743-10-31 01:11 J	-9872404.70	-9872404.45	-9872404.21	0.0289	0.0007

Jupiter	-31736-04-06 20:38 J	-9870054.79	-9870054.64	-9870054.48	0.0530	0.0386
Mars	-31734-03-14 03:07 J	-9869348.55	-9869348.37	-9869348.20	0.1693	0.0645
Neptune	-31731-03-27 21:21 J	-9868238.73	-9868238.61	-9868238.45	0.0089	0.0074
Neptune	-31730-03-30 15:21 J	-9867871.10	-9867870.86	-9867870.62	0.0089	0.0029
Neptune	-31729-03-31 19:11 J	-9867503.94	-9867503.70	-9867503.44	0.0089	0.0011
Neptune	-31728-04-03 11:59 J	-9867136.19	-9867136.00	-9867135.79	0.0089	0.0056
Saturn	-31728-04-26 05:16 J	-9867113.52	-9867113.28	-9867113.04	0.0271	0.0094
Mars	-31728-09-13 05:31 J	-9866973.36	-9866973.27	-9866973.18	0.1826	0.1591
Saturn	-31714-10-25 20:09 J	-9861817.77	-9861817.66	-9861817.53	0.0289	0.0248
Uranus	-31708-10-28 03:21 J	-9859623.50	-9859623.36	-9859623.20	0.0135	0.0108
Uranus	-31707-11-01 17:45 J	-9859254.03	-9859253.76	-9859253.50	0.0135	0.0005
Uranus	-31706-11-05 23:59 J	-9858884.67	-9858884.50	-9858884.31	0.0134	0.0090
Saturn	-31698-05-03 17:02 J	-9856148.97	-9856148.79	-9856148.59	0.0270	0.0171
Saturn	-31684-11-01 18:43 J	-9850852.95	-9850852.72	-9850852.49	0.0289	0.0071
Jupiter	-31683-10-01 20:09 J	-9850518.83	-9850518.66	-9850518.46	0.0495	0.0317
Jupiter	-31671-10-06 11:59 J	-9846131.21	-9846131.00	-9846130.78	0.0497	0.0150
Saturn	-31669-04-27 10:47 J	-9845562.29	-9845562.05	-9845561.81	0.0271	0.0041
Jupiter	-31665-03-31 21:50 J	-9844127.77	-9844127.59	-9844127.40	0.0532	0.0305
Uranus	-31663-04-26 15:35 J	-9843372.05	-9843371.85	-9843371.63	0.0144	0.0083
Uranus	-31662-05-01 17:45 J	-9843002.00	-9843001.76	-9843001.52	0.0144	0.0029
Saturn	-31655-10-27 08:09 J	-9840266.36	-9840266.16	-9840265.95	0.0289	0.0178
Jupiter	-31653-04-05 11:16 J	-9839740.23	-9839740.03	-9839739.82	0.0531	0.0255
Neptune	-31649-09-28 01:55 J	-9838103.56	-9838103.42	-9838103.26	0.0088	0.0072
Neptune	-31648-09-30 07:11 J	-9837736.43	-9837736.20	-9837735.95	0.0088	0.0033
Neptune	-31647-10-03 02:52 J	-9837368.64	-9837368.38	-9837368.12	0.0088	0.0010
Pluto	-31646-06-08 12:57 J	-9837120.21	-9837119.96	-9837119.70	0.0067	0.0006
Neptune	-31646-10-05 08:38 J	-9837001.32	-9837001.14	-9837000.91	0.0088	0.0051
Saturn	-31640-04-23 00:14 J	-9834974.59	-9834974.49	-9834974.36	0.0270	0.0234
Saturn	-31639-05-04 21:07 J	-9834597.74	-9834597.62	-9834597.47	0.0270	0.0227
Saturn	-31625-11-03 12:14 J	-9829301.19	-9829300.99	-9829300.77	0.0289	0.0140

Uranus	-31624-10-28 18:14 J	-9828941.92	-9828941.74	-9828941.54	0.0135	0.0087
Uranus	-31623-11-02 07:55 J	-9828572.43	-9828572.17	-9828571.90	0.0135	0.0003
Uranus	-31622-11-06 15:07 J	-9828202.98	-9828202.87	-9828202.72	0.0134	0.0113
Saturn	-31610-04-29 19:11 J	-9824010.94	-9824010.70	-9824010.47	0.0271	0.0012
Jupiter	-31600-10-01 03:21 J	-9820203.50	-9820203.36	-9820203.22	0.0495	0.0394
Saturn	-31596-10-28 15:35 J	-9818715.07	-9818714.85	-9818714.61	0.0289	0.0115
Jupiter	-31588-10-05 15:35 J	-9815816.09	-9815815.85	-9815815.61	0.0496	0.0064
Jupiter	-31582-03-31 13:26 J	-9813813.06	-9813812.94	-9813812.79	0.0533	0.0434
Saturn	-31581-04-24 03:50 J	-9813423.51	-9813423.34	-9813423.15	0.0270	0.0184
Uranus	-31579-04-27 03:35 J	-9812690.54	-9812690.35	-9812690.14	0.0144	0.0088
Uranus	-31578-05-02 05:59 J	-9812320.48	-9812320.25	-9812320.01	0.0144	0.0040
Jupiter	-31570-04-05 19:26 J	-9809424.89	-9809424.69	-9809424.47	0.0532	0.0173
Neptune	-31566-03-29 13:11 J	-9807971.15	-9807970.95	-9807970.74	0.0089	0.0052
Saturn	-31566-11-06 00:57 J	-9807749.63	-9807749.46	-9807749.28	0.0289	0.0205
Neptune	-31565-03-31 05:45 J	-9807603.51	-9807603.26	-9807603.00	0.0089	0.0018
Neptune	-31564-04-02 12:28 J	-9807236.20	-9807235.98	-9807235.74	0.0089	0.0033
Neptune	-31563-04-05 00:57 J	-9806868.60	-9806868.46	-9806868.26	0.0089	0.0068
Pluto	-31560-12-12 09:21 J	-9805521.29	-9805521.11	-9805520.90	0.0076	0.0048
Saturn	-31551-05-01 03:21 J	-9802459.59	-9802459.36	-9802459.13	0.0270	0.0060
Uranus	-31540-10-29 09:50 J	-9798260.26	-9798260.09	-9798259.89	0.0135	0.0088
Uranus	-31539-11-02 22:33 J	-9797890.82	-9797890.56	-9797890.29	0.0135	0.0024
Uranus	-31538-11-07 06:28 J	-9797521.36	-9797521.23	-9797521.07	0.0134	0.0109
Saturn	-31537-10-29 23:45 J	-9797163.75	-9797163.51	-9797163.27	0.0290	0.0057
Mars	-31529-03-11 07:55 J	-9794474.35	-9794474.17	-9794473.98	0.1685	0.0395
Mars	-31523-09-10 01:11 J	-9792100.48	-9792100.45	-9792100.41	0.1839	0.1808
Saturn	-31522-04-26 04:04 J	-9791872.55	-9791872.33	-9791872.12	0.0270	0.0138
Jupiter	-31517-09-30 07:55 J	-9789888.24	-9789888.17	-9789888.09	0.0494	0.0466
Saturn	-31507-11-07 05:59 J	-9786198.34	-9786198.25	-9786198.14	0.0289	0.0263
Jupiter	-31505-10-04 17:59 J	-9785500.98	-9785500.75	-9785500.52	0.0496	0.0018
Jupiter	-31499-03-31 00:43 J	-9783497.52	-9783497.47	-9783497.42	0.0534	0.0516

Uranus	-31495-04-27 16:04 J	-9782009.05	-9782008.83	-9782008.60	0.0144	0.0067
Uranus	-31494-05-02 18:57 J	-9781638.94	-9781638.71	-9781638.47	0.0144	0.0043
Jupiter	-31493-10-09 12:14 J	-9781113.08	-9781112.99	-9781112.88	0.0498	0.0450
Saturn	-31492-05-02 05:16 J	-9780908.51	-9780908.28	-9780908.05	0.0270	0.0107
Jupiter	-31487-04-04 22:33 J	-9779109.79	-9779109.56	-9779109.32	0.0532	0.0085
Neptune	-31484-09-29 16:33 J	-9777836.01	-9777835.81	-9777835.59	0.0088	0.0053
Neptune	-31483-10-01 23:31 J	-9777468.76	-9777468.52	-9777468.26	0.0088	0.0020
Neptune	-31482-10-04 15:07 J	-9777101.11	-9777100.87	-9777100.60	0.0088	0.0031
Neptune	-31481-10-06 02:38 J	-9776733.53	-9776733.39	-9776733.20	0.0088	0.0065
Saturn	-31478-11-01 09:35 J	-9775612.34	-9775612.10	-9775611.86	0.0290	0.0004
Saturn	-31463-04-27 07:40 J	-9770321.40	-9770321.18	-9770320.95	0.0269	0.0091
Uranus	-31456-10-30 00:28 J	-9767578.69	-9767578.48	-9767578.26	0.0135	0.0068
Uranus	-31455-11-03 12:28 J	-9767209.24	-9767208.98	-9767208.71	0.0135	0.0020
Uranus	-31454-11-07 21:21 J	-9766839.64	-9766839.61	-9766839.54	0.0134	0.0132
Mars	-31450-03-14 17:31 J	-9765616.95	-9765616.77	-9765616.59	0.1688	0.0685
Saturn	-31449-10-25 02:52 J	-9765026.43	-9765026.38	-9765026.30	0.0289	0.0279
Mars	-31444-09-13 09:35 J	-9763242.25	-9763242.10	-9763241.95	0.1833	0.1119
Saturn	-31433-05-03 01:40 J	-9759357.63	-9759357.43	-9759357.22	0.0270	0.0152
Jupiter	-31422-10-05 08:23 J	-9755185.39	-9755185.15	-9755184.91	0.0495	0.0084
Saturn	-31419-11-02 15:07 J	-9754061.11	-9754060.87	-9754060.63	0.0290	0.0049
Uranus	-31411-04-28 03:07 J	-9751327.58	-9751327.37	-9751327.15	0.0144	0.0074
Uranus	-31410-05-03 06:14 J	-9750957.47	-9750957.24	-9750957.01	0.0144	0.0055
Jupiter	-31410-10-09 14:23 J	-9750798.04	-9750797.90	-9750797.75	0.0497	0.0390
Jupiter	-31404-04-03 20:09 J	-9748794.88	-9748794.66	-9748794.44	0.0533	0.0026
Saturn	-31404-04-28 13:11 J	-9748770.18	-9748769.95	-9748769.71	0.0269	0.0046
Neptune	-31402-03-28 23:02 J	-9748070.60	-9748070.54	-9748070.42	0.0089	0.0084
Neptune	-31401-03-30 06:43 J	-9747703.43	-9747703.22	-9747702.98	0.0089	0.0039
Neptune	-31400-04-01 18:28 J	-9747335.99	-9747335.73	-9747335.46	0.0089	0.0003
Neptune	-31399-04-04 06:28 J	-9746968.42	-9746968.23	-9746968.00	0.0089	0.0048
Neptune	-31398-04-06 13:40 J	-9746600.96	-9746600.93	-9746600.87	0.0089	0.0088

Pluto	-31398-06-10 07:26 J	-9746536.46	-9746536.19	-9746535.92	0.0067	0.0002
Saturn	-31390-10-27 04:19 J	-9743475.46	-9743475.32	-9743475.16	0.0290	0.0229
Saturn	-31375-04-23 04:33 J	-9738183.34	-9738183.31	-9738183.27	0.0270	0.0266
Saturn	-31374-05-05 01:11 J	-9737806.60	-9737806.45	-9737806.28	0.0270	0.0200
Uranus	-31372-10-30 14:52 J	-9736897.08	-9736896.88	-9736896.66	0.0135	0.0070
Uranus	-31371-11-04 01:55 J	-9736527.67	-9736527.42	-9736527.16	0.0135	0.0041
Uranus	-31370-11-08 11:31 J	-9736158.08	-9736158.02	-9736157.92	0.0134	0.0127
Saturn	-31360-11-03 12:28 J	-9732510.22	-9732509.98	-9732509.74	0.0290	0.0097
Saturn	-31345-04-29 14:52 J	-9727219.12	-9727218.88	-9727218.63	0.0269	0.0004
Jupiter	-31339-10-04 09:35 J	-9724870.33	-9724870.10	-9724869.88	0.0495	0.0153
Saturn	-31331-10-28 08:23 J	-9721924.32	-9721924.15	-9721923.95	0.0290	0.0180
Uranus	-31327-04-28 16:19 J	-9720646.05	-9720645.82	-9720645.57	0.0144	0.0052
Jupiter	-31327-10-09 05:16 J	-9720482.45	-9720482.28	-9720482.11	0.0496	0.0331
Uranus	-31326-05-03 19:55 J	-9720275.89	-9720275.67	-9720275.44	0.0144	0.0057
Jupiter	-31321-04-03 11:31 J	-9718479.25	-9718479.02	-9718478.79	0.0533	0.0071
Neptune	-31320-09-28 16:04 J	-9717935.92	-9717935.83	-9717935.71	0.0088	0.0080
Neptune	-31319-10-01 06:14 J	-9717568.46	-9717568.24	-9717567.98	0.0088	0.0042
Neptune	-31318-10-03 18:57 J	-9717200.96	-9717200.71	-9717200.46	0.0088	0.0004
Neptune	-31317-10-05 04:19 J	-9716833.56	-9716833.32	-9716833.09	0.0088	0.0041
Saturn	-31316-04-24 02:38 J	-9716632.50	-9716632.39	-9716632.24	0.0270	0.0224
Neptune	-31316-10-07 20:38 J	-9716465.65	-9716465.64	-9716465.58	0.0088	0.0087
Saturn	-31315-05-06 05:16 J	-9716255.36	-9716255.28	-9716255.18	0.0269	0.0248
Pluto	-31312-12-14 05:59 J	-9714937.45	-9714937.25	-9714937.03	0.0076	0.0047
Saturn	-31301-11-04 07:55 J	-9710959.38	-9710959.17	-9710958.95	0.0290	0.0142
Uranus	-31288-10-31 04:33 J	-9706215.53	-9706215.31	-9706215.07	0.0135	0.0052
Uranus	-31287-11-04 14:52 J	-9705846.13	-9705845.88	-9705845.62	0.0135	0.0037
Saturn	-31286-05-01 11:16 J	-9705668.27	-9705668.03	-9705667.77	0.0269	0.0045
Saturn	-31272-10-29 12:43 J	-9700373.17	-9700372.97	-9700372.74	0.0290	0.0134
Saturn	-31257-04-25 06:14 J	-9695081.40	-9695081.24	-9695081.05	0.0269	0.0179
Jupiter	-31256-10-04 02:09 J	-9694554.62	-9694554.41	-9694554.20	0.0495	0.0213

Mars	-31245-03-12 17:02 J	-9690741.97	-9690741.79	-9690741.62	0.1680	0.0103
Jupiter	-31244-10-08 11:16 J	-9690167.22	-9690167.03	-9690166.82	0.0496	0.0282
Uranus	-31243-04-29 06:28 J	-9689964.45	-9689964.23	-9689963.98	0.0143	0.0056
Uranus	-31242-05-04 10:04 J	-9689594.28	-9689594.08	-9689593.86	0.0144	0.0073
Saturn	-31242-11-06 07:40 J	-9689408.36	-9689408.18	-9689408.00	0.0290	0.0190
Jupiter	-31238-04-03 05:02 J	-9688164.50	-9688164.29	-9688164.07	0.0533	0.0180
Neptune	-31237-03-29 11:45 J	-9687803.20	-9687803.01	-9687802.82	0.0089	0.0061
Neptune	-31236-04-01 01:11 J	-9687435.67	-9687435.45	-9687435.20	0.0089	0.0028
Neptune	-31235-04-03 07:26 J	-9687068.43	-9687068.19	-9687067.93	0.0089	0.0024
Neptune	-31234-04-05 23:59 J	-9686700.67	-9686700.50	-9686700.29	0.0089	0.0059
Saturn	-31227-05-02 08:09 J	-9684117.38	-9684117.16	-9684116.92	0.0269	0.0089
Jupiter	-31226-04-08 11:16 J	-9683776.14	-9683776.03	-9683775.90	0.0531	0.0453
Saturn	-31213-10-30 13:26 J	-9678822.18	-9678821.94	-9678821.70	0.0290	0.0085
Uranus	-31204-10-31 18:28 J	-9675533.94	-9675533.73	-9675533.49	0.0135	0.0054
Uranus	-31203-11-05 04:04 J	-9675164.57	-9675164.33	-9675164.09	0.0135	0.0057
Saturn	-31198-04-27 11:16 J	-9673530.23	-9673530.03	-9673529.81	0.0269	0.0134
Saturn	-31183-11-07 11:59 J	-9667857.12	-9667857.00	-9667856.85	0.0290	0.0238
Jupiter	-31173-10-03 08:52 J	-9664239.34	-9664239.13	-9664238.92	0.0494	0.0259
Saturn	-31168-05-03 10:47 J	-9662566.24	-9662566.05	-9662565.84	0.0269	0.0137
Mars	-31166-03-15 14:23 J	-9661885.06	-9661884.90	-9661884.75	0.1683	0.0846
Jupiter	-31161-10-07 21:35 J	-9659851.80	-9659851.60	-9659851.39	0.0496	0.0231
Mars	-31160-09-12 12:43 J	-9659512.19	-9659511.97	-9659511.74	0.1841	0.0046
Uranus	-31159-04-29 21:35 J	-9659282.84	-9659282.60	-9659282.35	0.0143	0.0031
Uranus	-31158-05-05 01:11 J	-9658912.65	-9658912.45	-9658912.23	0.0144	0.0077
Jupiter	-31155-04-02 17:59 J	-9657848.95	-9657848.75	-9657848.55	0.0534	0.0256
Neptune	-31155-09-30 11:31 J	-9657668.20	-9657668.02	-9657667.84	0.0088	0.0061
Neptune	-31154-10-02 19:55 J	-9657300.91	-9657300.67	-9657300.40	0.0088	0.0027
Saturn	-31154-11-01 10:33 J	-9657271.31	-9657271.06	-9657270.80	0.0290	0.0036
Neptune	-31153-10-04 14:09 J	-9656933.16	-9656932.91	-9656932.66	0.0088	0.0023
Neptune	-31152-10-06 19:26 J	-9656565.88	-9656565.69	-9656565.48	0.0088	0.0057

Pluto	-31150-06-11 22:47 J	-9655952.79	-9655952.55	-9655952.29	0.0067	0.0006
Jupiter	-31143-04-07 14:23 J	-9653461.06	-9653460.90	-9653460.73	0.0532	0.0381
Saturn	-31139-04-28 12:28 J	-9651979.22	-9651978.98	-9651978.74	0.0269	0.0084
Saturn	-31124-11-08 16:47 J	-9646305.81	-9646305.80	-9646305.78	0.0290	0.0289
Uranus	-31120-11-01 08:38 J	-9644852.37	-9644852.14	-9644851.89	0.0135	0.0035
Uranus	-31119-11-05 17:02 J	-9644483.02	-9644482.79	-9644482.53	0.0135	0.0054
Saturn	-31109-05-04 17:45 J	-9641014.92	-9641014.76	-9641014.58	0.0269	0.0187
Saturn	-31095-11-02 14:38 J	-9635720.13	-9635719.89	-9635719.65	0.0290	0.0022
Jupiter	-31090-10-03 17:02 J	-9633923.96	-9633923.79	-9633923.63	0.0494	0.0330
Saturn	-31080-04-29 11:59 J	-9630428.25	-9630428.00	-9630427.75	0.0269	0.0031
Jupiter	-31078-10-08 05:45 J	-9629536.48	-9629536.26	-9629536.02	0.0495	0.0172
Uranus	-31076-04-25 22:19 J	-9628970.62	-9628970.57	-9628970.48	0.0143	0.0137
Uranus	-31075-04-30 11:16 J	-9628601.27	-9628601.03	-9628600.78	0.0143	0.0036
Uranus	-31074-05-05 14:52 J	-9628231.05	-9628230.88	-9628230.67	0.0144	0.0093
Neptune	-31072-03-31 00:43 J	-9627535.67	-9627535.47	-9627535.24	0.0089	0.0050
Jupiter	-31072-04-01 18:57 J	-9627533.89	-9627533.71	-9627533.52	0.0534	0.0332
Neptune	-31071-04-02 18:43 J	-9627167.97	-9627167.72	-9627167.47	0.0089	0.0005
Neptune	-31070-04-04 22:19 J	-9626800.78	-9626800.57	-9626800.33	0.0089	0.0038
Neptune	-31069-04-06 15:35 J	-9626432.94	-9626432.85	-9626432.71	0.0089	0.0081
Saturn	-31066-10-27 11:59 J	-9625134.09	-9625134.00	-9625133.88	0.0290	0.0263
Pluto	-31065-12-14 01:55 J	-9624720.51	-9624720.42	-9624720.29	0.0077	0.0069
Pluto	-31064-12-15 22:19 J	-9624353.71	-9624353.57	-9624353.40	0.0076	0.0059
Jupiter	-31060-04-06 17:59 J	-9623145.93	-9623145.75	-9623145.56	0.0532	0.0271
Saturn	-31051-04-24 23:02 J	-9619840.63	-9619840.54	-9619840.42	0.0270	0.0239
Saturn	-31050-05-06 22:33 J	-9619463.66	-9619463.56	-9619463.44	0.0269	0.0241
Uranus	-31037-10-28 05:16 J	-9614540.32	-9614540.28	-9614540.18	0.0136	0.0131
Uranus	-31036-11-01 22:04 J	-9614170.81	-9614170.58	-9614170.33	0.0135	0.0037
Saturn	-31036-11-04 02:23 J	-9614168.63	-9614168.40	-9614168.18	0.0290	0.0086
Uranus	-31035-11-06 05:45 J	-9613801.47	-9613801.26	-9613801.03	0.0135	0.0073
Saturn	-31021-04-30 17:59 J	-9608876.99	-9608876.75	-9608876.51	0.0269	0.0025

Jupiter -31007-10-03 01:11 J -9603608.59 -9603608.45 -9603608.29 0.0494 0.0395

Saturn -31007-10-28 17:02 J -9603582.96 -9603582.79 -9603582.59 0.0290 0.0198

31ST MILLENNIUM BCE

This is a list of transits of Moon in the 31st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-30995-10-07 08:23 J		-9599221.37	-9599221.15	-9599220.92	0.0495	0.0116	
Saturn	-30992-04-26 05:59 J		-9598289.42	-9598289.25	-9598289.06	0.0270	0.0186	
Uranus	-30991-04-30 23:31 J		-9597919.76	-9597919.52	-9597919.27	0.0143	0.0014	
Neptune	-30991-09-29 12:28 J		-9597768.03	-9597767.98	-9597767.90	0.0088	0.0085	
Uranus	-30990-05-06 03:35 J		-9597549.54	-9597549.35	-9597549.16	0.0144	0.0093	
Neptune	-30990-10-02 06:43 J		-9597400.42	-9597400.22	-9597399.99	0.0088	0.0049	
Jupiter	-30989-03-31 19:40 J		-9597218.79	-9597218.68	-9597218.56	0.0534	0.0454	
Neptune	-30989-10-03 12:14 J		-9597033.25	-9597032.99	-9597032.73	0.0088	0.0001	
Neptune	-30988-10-06 07:11 J		-9596665.43	-9596665.20	-9596664.95	0.0088	0.0035	
Neptune	-30987-10-08 13:11 J		-9596298.04	-9596297.95	-9596297.85	0.0088	0.0081	
Jupiter	-30977-04-05 18:28 J		-9592830.95	-9592830.73	-9592830.50	0.0533	0.0158	
Saturn	-30977-11-05 15:35 J		-9592617.05	-9592616.85	-9592616.64	0.0290	0.0152	
Saturn	-30962-05-03 05:31 J		-9587325.49	-9587325.27	-9587325.04	0.0269	0.0085	
Mars	-30961-03-13 21:21 J		-9587009.80	-9587009.61	-9587009.42	0.1676	0.0169	
Uranus	-30953-10-28 17:45 J		-9583858.84	-9583858.76	-9583858.64	0.0136	0.0125	
Uranus	-30952-11-02 11:16 J		-9583489.27	-9583489.03	-9583488.78	0.0135	0.0019	
Uranus	-30951-11-06 17:59 J		-9583119.96	-9583119.75	-9583119.51	0.0135	0.0069	

Saturn	-30948-10-30 02:52 J	-9582031.60	-9582031.38	-9582031.16	0.0290	0.0131
Saturn	-30933-04-27 10:04 J	-9576738.29	-9576738.08	-9576737.85	0.0270	0.0129
Jupiter	-30924-10-01 23:02 J	-9573293.59	-9573293.54	-9573293.48	0.0493	0.0478
Saturn	-30918-11-08 03:50 J	-9571065.49	-9571065.34	-9571065.17	0.0290	0.0225
Jupiter	-30912-10-06 17:31 J	-9568906.01	-9568905.77	-9568905.53	0.0494	0.0036
Neptune	-30908-03-30 12:43 J	-9567635.11	-9567634.97	-9567634.79	0.0089	0.0070
Uranus	-30908-04-26 21:50 J	-9567607.71	-9567607.59	-9567607.45	0.0143	0.0122
Neptune	-30907-04-01 17:16 J	-9567268.01	-9567267.78	-9567267.55	0.0089	0.0036
Uranus	-30907-05-01 11:02 J	-9567238.28	-9567238.04	-9567237.79	0.0143	0.0022
Neptune	-30906-04-04 10:19 J	-9566900.32	-9566900.07	-9566899.81	0.0089	0.0016
Uranus	-30906-05-06 14:38 J	-9566868.04	-9566867.89	-9566867.71	0.0144	0.0107
Neptune	-30905-04-05 16:33 J	-9566533.00	-9566532.81	-9566532.59	0.0089	0.0051
Saturn	-30903-05-04 17:02 J	-9565773.98	-9565773.79	-9565773.58	0.0269	0.0143
Pluto	-30902-06-13 22:04 J	-9565368.83	-9565368.58	-9565368.32	0.0068	0.0023
Jupiter	-30894-04-05 18:14 J	-9562515.96	-9562515.74	-9562515.52	0.0533	0.0062
Saturn	-30889-10-31 18:57 J	-9560479.94	-9560479.71	-9560479.47	0.0290	0.0059
Mars	-30882-03-17 01:11 J	-9558152.58	-9558152.45	-9558152.32	0.1678	0.1166
Mars	-30876-09-11 14:09 J	-9555782.06	-9555781.91	-9555781.75	0.1849	0.1092
Saturn	-30874-04-29 14:38 J	-9555187.12	-9555186.89	-9555186.65	0.0270	0.0074
Uranus	-30869-10-29 04:47 J	-9553177.41	-9553177.30	-9553177.14	0.0136	0.0117
Uranus	-30868-11-02 23:16 J	-9552807.78	-9552807.53	-9552807.28	0.0135	0.0022
Uranus	-30867-11-07 05:02 J	-9552438.47	-9552438.29	-9552438.07	0.0135	0.0088
Saturn	-30844-05-06 01:11 J	-9544222.60	-9544222.45	-9544222.27	0.0269	0.0203
Saturn	-30830-11-03 15:35 J	-9538928.09	-9538927.85	-9538927.61	0.0290	0.0018
Jupiter	-30829-10-05 12:28 J	-9538591.22	-9538590.98	-9538590.75	0.0494	0.0053
Neptune	-30826-10-01 06:14 J	-9537500.39	-9537500.24	-9537500.05	0.0088	0.0066
Neptune	-30825-10-03 01:40 J	-9537132.67	-9537132.43	-9537132.17	0.0088	0.0031
Uranus	-30824-04-27 07:55 J	-9536926.25	-9536926.17	-9536926.04	0.0143	0.0131
Neptune	-30824-10-05 08:23 J	-9536765.39	-9536765.15	-9536764.90	0.0088	0.0018
Uranus	-30823-05-01 22:04 J	-9536556.83	-9536556.58	-9536556.33	0.0143	0.0001

Neptune	-30823-10-07 23:59 J	-9536397.69	-9536397.50	-9536397.26	0.0088	0.0053
Uranus	-30822-05-07 01:11 J	-9536186.61	-9536186.45	-9536186.26	0.0144	0.0105
Jupiter	-30817-10-10 07:11 J	-9534203.29	-9534203.20	-9534203.11	0.0496	0.0456
Pluto	-30817-12-15 22:04 J	-9534136.80	-9534136.58	-9534136.35	0.0077	0.0037
Saturn	-30815-05-01 00:14 J	-9533635.73	-9533635.49	-9533635.25	0.0270	0.0015
Jupiter	-30811-04-04 21:35 J	-9532200.84	-9532200.60	-9532200.37	0.0533	0.0061
Saturn	-30801-10-27 20:38 J	-9528341.76	-9528341.64	-9528341.49	0.0290	0.0242
Jupiter	-30799-04-09 10:04 J	-9527813.18	-9527813.08	-9527812.97	0.0532	0.0472
Mars	-30797-09-14 23:02 J	-9526923.69	-9526923.54	-9526923.39	0.1844	0.1329
Saturn	-30786-04-26 11:59 J	-9523048.13	-9523048.00	-9523047.84	0.0270	0.0220
Saturn	-30785-05-07 05:59 J	-9522671.28	-9522671.25	-9522671.19	0.0269	0.0265
Uranus	-30785-10-29 15:50 J	-9522495.97	-9522495.84	-9522495.68	0.0136	0.0111
Uranus	-30784-11-03 11:02 J	-9522126.29	-9522126.04	-9522125.79	0.0135	0.0007
Uranus	-30783-11-07 16:19 J	-9521757.01	-9521756.82	-9521756.59	0.0135	0.0082
Saturn	-30771-11-05 08:52 J	-9517376.36	-9517376.13	-9517375.89	0.0290	0.0095
Mars	-30756-03-12 07:11 J	-9512135.25	-9512135.20	-9512135.16	0.1668	0.1610
Saturn	-30756-05-02 12:14 J	-9512084.22	-9512083.99	-9512083.75	0.0270	0.0045
Jupiter	-30746-10-05 21:35 J	-9508275.82	-9508275.60	-9508275.38	0.0494	0.0132
Neptune	-30743-04-01 04:33 J	-9507367.48	-9507367.31	-9507367.08	0.0089	0.0058
Neptune	-30742-04-03 12:14 J	-9507000.22	-9506999.99	-9506999.74	0.0089	0.0013
Saturn	-30742-10-30 11:31 J	-9506790.21	-9506790.02	-9506789.81	0.0290	0.0167
Neptune	-30741-04-05 00:43 J	-9506632.70	-9506632.47	-9506632.21	0.0089	0.0030
Neptune	-30740-04-07 12:57 J	-9506265.08	-9506264.96	-9506264.81	0.0089	0.0075
Uranus	-30740-04-27 20:38 J	-9506244.79	-9506244.64	-9506244.45	0.0143	0.0108
Uranus	-30739-05-02 11:16 J	-9505875.28	-9505875.03	-9505874.79	0.0143	0.0007
Uranus	-30738-05-07 13:40 J	-9505505.05	-9505504.93	-9505504.78	0.0144	0.0121
Jupiter	-30734-10-10 04:47 J	-9503888.47	-9503888.30	-9503888.13	0.0495	0.0361
Jupiter	-30728-04-03 11:02 J	-9501886.25	-9501886.04	-9501885.82	0.0535	0.0190
Saturn	-30727-04-27 15:50 J	-9501497.04	-9501496.84	-9501496.63	0.0269	0.0160
Jupiter	-30716-04-08 20:09 J	-9497497.82	-9497497.66	-9497497.50	0.0533	0.0375

Saturn	-30712-11-06 20:09 J	-9495824.86	-9495824.66	-9495824.45	0.0290	0.0172
Uranus	-30701-10-30 01:26 J	-9491814.58	-9491814.44	-9491814.25	0.0136	0.0106
Uranus	-30700-11-03 21:21 J	-9491444.86	-9491444.61	-9491444.35	0.0136	0.0009
Uranus	-30699-11-08 02:23 J	-9491075.56	-9491075.40	-9491075.21	0.0135	0.0100
Saturn	-30697-05-03 19:40 J	-9490532.91	-9490532.68	-9490532.45	0.0270	0.0102
Saturn	-30683-11-01 04:19 J	-9485238.55	-9485238.32	-9485238.09	0.0290	0.0093
Mars	-30677-03-14 11:59 J	-9483278.19	-9483278.00	-9483277.81	0.1671	0.0219
Saturn	-30668-04-28 21:07 J	-9479945.83	-9479945.62	-9479945.39	0.0269	0.0105
Jupiter	-30663-10-04 19:55 J	-9477960.89	-9477960.67	-9477960.44	0.0493	0.0211
Neptune	-30661-10-02 02:23 J	-9477232.57	-9477232.40	-9477232.17	0.0088	0.0054
Neptune	-30660-10-04 18:14 J	-9476865.01	-9476864.74	-9476864.47	0.0088	0.0005
Neptune	-30659-10-07 05:45 J	-9476497.48	-9476497.26	-9476497.01	0.0088	0.0032
Neptune	-30658-10-09 16:04 J	-9476129.92	-9476129.83	-9476129.69	0.0088	0.0079
Uranus	-30656-04-28 09:35 J	-9475563.25	-9475563.10	-9475562.94	0.0143	0.0113
Uranus	-30655-05-03 00:14 J	-9475193.73	-9475193.49	-9475193.24	0.0143	0.0016
Pluto	-30655-06-14 09:21 J	-9475151.32	-9475151.11	-9475150.86	0.0067	0.0036
Uranus	-30654-05-08 02:23 J	-9474823.53	-9474823.40	-9474823.25	0.0144	0.0120
Pluto	-30654-06-15 23:59 J	-9474784.65	-9474784.50	-9474784.31	0.0068	0.0050
Saturn	-30653-11-08 05:45 J	-9474273.38	-9474273.26	-9474273.12	0.0290	0.0246
Jupiter	-30651-10-09 09:21 J	-9473573.30	-9473573.11	-9473572.92	0.0495	0.0277
Jupiter	-30645-04-02 23:02 J	-9471570.73	-9471570.54	-9471570.35	0.0535	0.0283
Saturn	-30638-05-05 20:38 J	-9468981.84	-9468981.64	-9468981.43	0.0270	0.0158
Jupiter	-30633-04-07 16:47 J	-9467183.01	-9467182.80	-9467182.60	0.0533	0.0265
Saturn	-30624-11-02 17:16 J	-9463687.02	-9463686.78	-9463686.53	0.0290	0.0026
Uranus	-30617-10-30 12:28 J	-9461133.13	-9461132.98	-9461132.78	0.0136	0.0099
Uranus	-30616-11-04 08:52 J	-9460763.39	-9460763.13	-9460762.88	0.0136	0.0005
Uranus	-30615-11-08 13:26 J	-9460394.11	-9460393.94	-9460393.74	0.0135	0.0094
Saturn	-30609-04-30 05:02 J	-9458394.52	-9458394.29	-9458394.05	0.0269	0.0050
Mars	-30598-03-18 01:11 J	-9454420.56	-9454420.45	-9454420.33	0.1674	0.1349
Jupiter	-30580-10-04 03:21 J	-9447645.55	-9447645.36	-9447645.17	0.0493	0.0275

Neptune	-30579-03-31 09:50 J	-9447467.21	-9447467.09	-9447466.95	0.0089	0.0076
Saturn	-30579-05-06 20:38 J	-9447430.78	-9447430.64	-9447430.47	0.0269	0.0212
Neptune	-30578-04-02 20:52 J	-9447099.85	-9447099.63	-9447099.38	0.0089	0.0041
Neptune	-30577-04-04 09:50 J	-9446732.34	-9446732.09	-9446731.85	0.0089	0.0011
Neptune	-30576-04-06 16:04 J	-9446365.04	-9446364.83	-9446364.59	0.0089	0.0045
Uranus	-30572-04-28 22:47 J	-9444881.74	-9444881.55	-9444881.34	0.0143	0.0090
Uranus	-30571-05-03 14:23 J	-9444512.15	-9444511.90	-9444511.66	0.0143	0.0010
Uranus	-30570-05-08 15:21 J	-9444141.91	-9444141.86	-9444141.77	0.0144	0.0138
Pluto	-30569-12-18 10:04 J	-9443552.33	-9443552.08	-9443551.81	0.0077	0.0011
Jupiter	-30568-10-08 18:43 J	-9443257.94	-9443257.72	-9443257.49	0.0494	0.0206
Saturn	-30565-11-03 22:33 J	-9442135.81	-9442135.56	-9442135.30	0.0290	0.0036
Jupiter	-30562-04-02 13:40 J	-9441256.07	-9441255.93	-9441255.78	0.0535	0.0420
Jupiter	-30550-04-07 17:16 J	-9436867.99	-9436867.78	-9436867.57	0.0534	0.0140
Saturn	-30550-05-02 11:59 J	-9436843.24	-9436843.00	-9436842.76	0.0269	0.0004
Saturn	-30536-10-28 15:21 J	-9431549.98	-9431549.86	-9431549.74	0.0290	0.0250
Uranus	-30533-10-30 23:02 J	-9430451.71	-9430451.54	-9430451.34	0.0136	0.0094
Uranus	-30532-11-04 19:26 J	-9430081.95	-9430081.69	-9430081.43	0.0136	0.0003
Uranus	-30531-11-08 23:59 J	-9429712.63	-9429712.50	-9429712.34	0.0135	0.0110
Saturn	-30521-04-26 01:11 J	-9426256.57	-9426256.45	-9426256.31	0.0270	0.0228
Saturn	-30520-05-08 00:14 J	-9425879.53	-9425879.49	-9425879.43	0.0269	0.0261
Mars	-30513-09-14 11:59 J	-9423193.19	-9423193.00	-9423192.82	0.1851	0.0306
Saturn	-30506-11-05 21:50 J	-9420584.83	-9420584.59	-9420584.35	0.0291	0.0095
Neptune	-30497-10-01 13:26 J	-9417332.09	-9417331.94	-9417331.75	0.0088	0.0069
Jupiter	-30497-10-03 16:19 J	-9417330.01	-9417329.82	-9417329.64	0.0492	0.0319
Neptune	-30496-10-04 02:09 J	-9416964.63	-9416964.41	-9416964.16	0.0088	0.0033
Neptune	-30495-10-06 11:31 J	-9416597.28	-9416597.02	-9416596.74	0.0088	0.0015
Neptune	-30494-10-09 04:33 J	-9416229.51	-9416229.31	-9416229.10	0.0088	0.0051
Saturn	-30491-05-03 12:28 J	-9415292.23	-9415291.98	-9415291.74	0.0269	0.0052
Uranus	-30488-04-29 09:07 J	-9414200.29	-9414200.12	-9414199.91	0.0143	0.0098
Uranus	-30487-05-04 01:26 J	-9413830.67	-9413830.44	-9413830.19	0.0143	0.0031

Uranus	-30486-05-09 01:55 J	-9413460.50	-9413460.42	-9413460.32	0.0144	0.0134
Jupiter	-30485-10-07 20:38 J	-9412942.86	-9412942.64	-9412942.41	0.0494	0.0139
Jupiter	-30479-04-01 23:02 J	-9410940.59	-9410940.54	-9410940.48	0.0536	0.0514
Saturn	-30477-10-29 23:02 J	-9409998.71	-9409998.54	-9409998.35	0.0290	0.0194
Mars	-30472-03-13 19:11 J	-9408402.81	-9408402.70	-9408402.58	0.1665	0.1230
Jupiter	-30467-04-07 02:52 J	-9406552.61	-9406552.38	-9406552.14	0.0534	0.0073
Saturn	-30462-04-28 04:04 J	-9404705.50	-9404705.33	-9404705.15	0.0269	0.0177
Uranus	-30449-10-31 10:04 J	-9399770.27	-9399770.08	-9399769.87	0.0136	0.0086
Uranus	-30448-11-05 06:14 J	-9399400.49	-9399400.24	-9399399.98	0.0135	0.0016
Saturn	-30447-11-06 21:21 J	-9399033.81	-9399033.61	-9399033.39	0.0291	0.0150
Uranus	-30447-11-09 10:47 J	-9399031.20	-9399031.05	-9399030.88	0.0135	0.0105
Saturn	-30432-05-04 07:55 J	-9393741.40	-9393741.17	-9393740.94	0.0269	0.0104
Saturn	-30418-11-01 01:11 J	-9388447.67	-9388447.45	-9388447.23	0.0290	0.0137
Neptune	-30414-04-02 08:09 J	-9387199.33	-9387199.16	-9387198.97	0.0089	0.0062
Jupiter	-30414-10-03 18:28 J	-9387014.87	-9387014.73	-9387014.58	0.0492	0.0381
Neptune	-30413-04-03 14:09 J	-9386832.16	-9386831.91	-9386831.64	0.0089	0.0015
Neptune	-30412-04-06 07:11 J	-9386464.43	-9386464.20	-9386463.95	0.0089	0.0025
Neptune	-30411-04-08 11:02 J	-9386097.17	-9386097.04	-9386096.87	0.0089	0.0072
Pluto	-30407-06-16 12:57 J	-9384567.20	-9384566.96	-9384566.70	0.0068	0.0007
Uranus	-30404-04-29 18:57 J	-9383518.91	-9383518.71	-9383518.47	0.0142	0.0079
Saturn	-30403-04-29 09:07 J	-9383154.32	-9383154.12	-9383153.90	0.0269	0.0126
Uranus	-30403-05-04 12:28 J	-9383149.22	-9383148.98	-9383148.74	0.0143	0.0022
Jupiter	-30402-10-08 12:57 J	-9382627.19	-9382626.96	-9382626.72	0.0494	0.0078
Mars	-30393-03-15 16:19 J	-9379545.98	-9379545.82	-9379545.65	0.1667	0.0497
Saturn	-30388-11-08 00:57 J	-9377482.62	-9377482.46	-9377482.28	0.0291	0.0204
Jupiter	-30384-04-06 00:14 J	-9376237.71	-9376237.49	-9376237.27	0.0534	0.0040
Saturn	-30373-05-05 07:26 J	-9372190.38	-9372190.19	-9372189.99	0.0269	0.0155
Uranus	-30365-10-31 19:40 J	-9369088.87	-9369088.68	-9369088.47	0.0136	0.0084
Uranus	-30364-11-05 15:35 J	-9368719.10	-9368718.85	-9368718.58	0.0136	0.0015
Uranus	-30363-11-09 20:09 J	-9368349.75	-9368349.66	-9368349.52	0.0135	0.0120

Saturn	-30359-11-01 20:09 J	-9366896.90	-9366896.66	-9366896.41	0.0291	0.0082
Saturn	-30344-04-30 10:19 J	-9361603.30	-9361603.07	-9361602.83	0.0269	0.0076
Neptune	-30332-10-03 07:11 J	-9357064.40	-9357064.20	-9357063.98	0.0088	0.0055
Jupiter	-30331-10-03 13:11 J	-9356699.07	-9356698.95	-9356698.83	0.0492	0.0425
Neptune	-30331-10-06 01:26 J	-9356696.70	-9356696.44	-9356696.18	0.0088	0.0005
Neptune	-30330-10-08 07:11 J	-9356329.44	-9356329.20	-9356328.95	0.0088	0.0030
Neptune	-30329-10-10 02:38 J	-9355961.49	-9355961.39	-9355961.27	0.0088	0.0079
Saturn	-30329-11-09 03:07 J	-9355931.47	-9355931.37	-9355931.24	0.0291	0.0257
Pluto	-30322-12-19 21:07 J	-9353334.76	-9353334.62	-9353334.43	0.0077	0.0060
Pluto	-30321-12-20 16:33 J	-9352967.91	-9352967.81	-9352967.68	0.0076	0.0068
Uranus	-30320-04-30 02:38 J	-9352837.58	-9352837.39	-9352837.17	0.0142	0.0088
Uranus	-30319-05-04 20:38 J	-9352467.87	-9352467.64	-9352467.40	0.0143	0.0039
Jupiter	-30319-10-07 18:28 J	-9352311.97	-9352311.73	-9352311.49	0.0493	0.0026
Uranus	-30318-05-09 18:43 J	-9352097.75	-9352097.72	-9352097.66	0.0143	0.0141
Mars	-30314-03-18 17:16 J	-9350688.85	-9350688.78	-9350688.70	0.1669	0.1518
Saturn	-30314-05-07 12:14 J	-9350639.14	-9350638.99	-9350638.84	0.0268	0.0205
Jupiter	-30307-10-12 10:04 J	-9347924.14	-9347924.08	-9347924.00	0.0494	0.0470
Jupiter	-30301-04-05 11:59 J	-9345922.23	-9345922.00	-9345921.77	0.0535	0.0116
Saturn	-30300-11-02 18:57 J	-9345345.95	-9345345.71	-9345345.46	0.0291	0.0028
Saturn	-30285-05-01 07:26 J	-9340052.44	-9340052.19	-9340051.93	0.0269	0.0025
Uranus	-30281-11-01 05:45 J	-9338407.47	-9338407.26	-9338407.05	0.0136	0.0077
Uranus	-30280-11-06 00:57 J	-9338037.71	-9338037.46	-9338037.19	0.0136	0.0024
Uranus	-30279-11-10 05:59 J	-9337668.38	-9337668.25	-9337668.11	0.0135	0.0114
Saturn	-30256-04-26 15:07 J	-9329464.96	-9329464.87	-9329464.75	0.0269	0.0241
Saturn	-30255-05-08 15:21 J	-9329087.93	-9329087.86	-9329087.78	0.0269	0.0255
Neptune	-30250-04-01 12:43 J	-9327299.08	-9327298.97	-9327298.83	0.0089	0.0078
Neptune	-30249-04-03 06:14 J	-9326931.46	-9326931.24	-9326931.01	0.0089	0.0043
Neptune	-30248-04-05 10:04 J	-9326564.32	-9326564.08	-9326563.82	0.0089	0.0010
Jupiter	-30248-10-02 14:52 J	-9326383.91	-9326383.88	-9326383.83	0.0492	0.0483
Neptune	-30247-04-08 03:21 J	-9326196.58	-9326196.36	-9326196.12	0.0089	0.0044

Saturn	-30241-11-04 00:14 J	-9323794.72	-9323794.49	-9323794.25	0.0291	0.0026
Uranus	-30236-04-30 11:16 J	-9322156.24	-9322156.03	-9322155.79	0.0142	0.0072
Jupiter	-30236-10-07 07:26 J	-9321996.42	-9321996.19	-9321995.97	0.0493	0.0046
Uranus	-30235-05-05 06:43 J	-9321786.45	-9321786.22	-9321785.98	0.0143	0.0029
Mars	-30229-09-14 06:43 J	-9319462.41	-9319462.22	-9319462.02	0.1857	0.0581
Saturn	-30226-05-03 07:11 J	-9318501.44	-9318501.20	-9318500.96	0.0269	0.0027
Jupiter	-30224-10-11 16:19 J	-9317608.95	-9317608.82	-9317608.68	0.0494	0.0405
Jupiter	-30218-04-05 13:55 J	-9315607.13	-9315606.92	-9315606.70	0.0535	0.0183
Saturn	-30212-10-28 13:11 J	-9313209.03	-9313208.95	-9313208.85	0.0290	0.0270
Jupiter	-30206-04-10 16:19 J	-9311218.94	-9311218.82	-9311218.70	0.0533	0.0446
Saturn	-30197-04-27 20:23 J	-9307913.81	-9307913.65	-9307913.47	0.0269	0.0191
Uranus	-30197-11-01 13:11 J	-9307726.13	-9307725.95	-9307725.72	0.0136	0.0079
Uranus	-30196-11-06 08:38 J	-9307356.39	-9307356.14	-9307355.88	0.0136	0.0023
Uranus	-30195-11-10 14:09 J	-9306986.98	-9306986.91	-9306986.81	0.0135	0.0126
Mars	-30188-03-14 23:16 J	-9304670.70	-9304670.53	-9304670.37	0.1661	0.0918
Saturn	-30182-11-06 07:26 J	-9302243.42	-9302243.19	-9302242.96	0.0291	0.0084
Neptune	-30168-10-02 21:50 J	-9297163.72	-9297163.59	-9297163.41	0.0088	0.0070
Saturn	-30167-05-04 12:57 J	-9296950.19	-9296949.96	-9296949.74	0.0269	0.0080
Neptune	-30167-10-05 03:21 J	-9296796.58	-9296796.36	-9296796.10	0.0088	0.0032
Neptune	-30166-10-07 23:02 J	-9296428.79	-9296428.54	-9296428.27	0.0088	0.0016
Neptune	-30165-10-09 04:47 J	-9296061.49	-9296061.30	-9296061.08	0.0088	0.0052
Pluto	-30160-06-17 05:02 J	-9294349.48	-9294349.29	-9294349.07	0.0067	0.0039
Pluto	-30159-06-18 23:45 J	-9293982.68	-9293982.51	-9293982.34	0.0068	0.0052
Jupiter	-30153-10-06 14:23 J	-9291681.14	-9291680.90	-9291680.66	0.0493	0.0110
Saturn	-30153-10-29 14:52 J	-9291658.05	-9291657.88	-9291657.71	0.0290	0.0212
Uranus	-30152-04-30 20:38 J	-9291474.86	-9291474.64	-9291474.42	0.0142	0.0078
Uranus	-30151-05-05 16:19 J	-9291105.04	-9291104.82	-9291104.58	0.0143	0.0048
Jupiter	-30141-10-11 01:26 J	-9287293.58	-9287293.44	-9287293.27	0.0494	0.0358
Saturn	-30138-04-29 22:04 J	-9286362.80	-9286362.58	-9286362.36	0.0270	0.0137
Jupiter	-30135-04-04 18:57 J	-9285291.90	-9285291.71	-9285291.53	0.0535	0.0297

Jupiter	-30123-04-09 13:40 J	-9280904.11	-9280903.93	-9280903.75	0.0534	0.0344
Saturn	-30123-11-07 13:26 J	-9280692.15	-9280691.94	-9280691.71	0.0291	0.0146
Uranus	-30113-11-01 22:19 J	-9277044.77	-9277044.57	-9277044.34	0.0136	0.0070
Uranus	-30112-11-06 16:47 J	-9276675.05	-9276674.80	-9276674.54	0.0136	0.0029
Uranus	-30111-11-10 22:47 J	-9276305.64	-9276305.55	-9276305.42	0.0135	0.0122
Mars	-30109-03-17 04:33 J	-9275813.47	-9275813.31	-9275813.16	0.1663	0.0874
Saturn	-30108-05-05 22:04 J	-9275398.78	-9275398.58	-9275398.37	0.0269	0.0137
Saturn	-30094-11-01 00:43 J	-9270106.67	-9270106.47	-9270106.26	0.0290	0.0147
Neptune	-30085-04-02 09:50 J	-9267031.25	-9267031.09	-9267030.89	0.0089	0.0063
Neptune	-30084-04-05 03:21 J	-9266663.61	-9266663.36	-9266663.10	0.0089	0.0015
Neptune	-30083-04-07 09:07 J	-9266296.34	-9266296.12	-9266295.87	0.0089	0.0024
Neptune	-30082-04-09 22:04 J	-9265928.71	-9265928.58	-9265928.39	0.0089	0.0072
Saturn	-30079-04-30 21:50 J	-9264811.82	-9264811.59	-9264811.35	0.0270	0.0080
Pluto	-30074-12-22 07:40 J	-9262750.42	-9262750.18	-9262749.93	0.0076	0.0022
Jupiter	-30070-10-06 18:14 J	-9261365.95	-9261365.74	-9261365.52	0.0492	0.0185
Uranus	-30068-05-01 07:26 J	-9260793.41	-9260793.19	-9260792.94	0.0142	0.0060
Uranus	-30067-05-06 04:47 J	-9260423.53	-9260423.30	-9260423.06	0.0143	0.0040
Saturn	-30064-11-08 18:43 J	-9259140.88	-9259140.72	-9259140.54	0.0291	0.0215
Jupiter	-30058-10-11 09:07 J	-9256978.32	-9256978.12	-9256977.92	0.0494	0.0280
Jupiter	-30052-04-03 16:19 J	-9254976.98	-9254976.82	-9254976.66	0.0536	0.0394
Saturn	-30049-05-07 05:02 J	-9253847.45	-9253847.29	-9253847.11	0.0269	0.0196
Jupiter	-30040-04-08 21:21 J	-9250588.80	-9250588.61	-9250588.42	0.0534	0.0265
Saturn	-30035-11-02 16:33 J	-9248555.04	-9248554.81	-9248554.57	0.0290	0.0075
Uranus	-30029-11-02 06:57 J	-9246363.40	-9246363.21	-9246362.98	0.0136	0.0072
Uranus	-30028-11-07 00:43 J	-9245993.72	-9245993.47	-9245993.21	0.0136	0.0030
Uranus	-30027-11-11 07:55 J	-9245624.21	-9245624.17	-9245624.11	0.0135	0.0132
Saturn	-30020-05-02 04:04 J	-9243260.57	-9243260.33	-9243260.09	0.0270	0.0023
Saturn	-30005-11-10 05:59 J	-9237589.26	-9237589.25	-9237589.24	0.0291	0.0290
Neptune	-30003-10-04 20:38 J	-9236895.84	-9236895.64	-9236895.42	0.0088	0.0055
Neptune	-30002-10-07 03:21 J	-9236528.61	-9236528.36	-9236528.10	0.0088	0.0004

Neptune -30001-10-08 19:55 J -9236160.91 -9236160.67 -9236160.41 0.0088 0.0031

30TH MILLENNIUM BCE

This is a list of transits of Moon in the 30th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Neptune	-30000-10-11 05:59 J		-9235793.33	-9235793.25	-9235793.14	0.0088	0.0081	
Saturn	-29991-04-27 15:35 J		-9232672.95	-9232672.85	-9232672.72	0.0270	0.0240	
Saturn	-29990-05-09 08:09 J		-9232296.22	-9232296.16	-9232296.07	0.0269	0.0257	
Jupiter	-29987-10-06 00:57 J		-9231050.66	-9231050.46	-9231050.26	0.0492	0.0269	
Uranus	-29984-05-01 17:02 J		-9230112.01	-9230111.79	-9230111.55	0.0142	0.0065	
Uranus	-29983-05-06 15:07 J		-9229742.08	-9229741.87	-9229741.64	0.0143	0.0060	
Saturn	-29976-11-04 07:11 J		-9227003.45	-9227003.20	-9227002.95	0.0290	0.0002	
Jupiter	-29975-10-10 06:57 J		-9226663.42	-9226663.21	-9226663.00	0.0493	0.0204	
Jupiter	-29969-04-02 20:09 J		-9224661.73	-9224661.66	-9224661.57	0.0536	0.0497	
Saturn	-29961-05-03 15:35 J		-9221709.08	-9221708.85	-9221708.61	0.0270	0.0037	
Jupiter	-29957-04-07 18:57 J		-9220273.94	-9220273.71	-9220273.48	0.0534	0.0141	
Saturn	-29947-10-29 11:02 J		-9216417.12	-9216417.04	-9216416.94	0.0290	0.0268	
Uranus	-29945-11-02 16:47 J		-9215682.01	-9215681.80	-9215681.57	0.0136	0.0061	
Uranus	-29944-11-07 08:52 J		-9215312.38	-9215312.13	-9215311.86	0.0136	0.0035	
Uranus	-29943-11-11 17:02 J		-9214942.85	-9214942.79	-9214942.71	0.0135	0.0129	
Saturn	-29932-04-28 21:07 J		-9211121.80	-9211121.62	-9211121.43	0.0269	0.0178	
Neptune	-29921-04-02 02:38 J		-9207130.49	-9207130.39	-9207130.23	0.0089	0.0078	
Neptune	-29920-04-04 09:50 J		-9206763.31	-9206763.09	-9206762.87	0.0089	0.0042	

Neptune	-29919-04-06 22:47 J	-9206395.81	-9206395.55	-9206395.29	0.0089	0.0009
Neptune	-29918-04-09 10:04 J	-9206028.28	-9206028.08	-9206027.86	0.0089	0.0045
Saturn	-29917-11-05 19:40 J	-9205451.92	-9205451.68	-9205451.43	0.0290	0.0078
Pluto	-29912-06-19 21:21 J	-9203764.84	-9203764.61	-9203764.34	0.0068	0.0023
Mars	-29904-03-15 16:47 J	-9200938.97	-9200938.80	-9200938.63	0.1657	0.0763
Jupiter	-29904-10-04 22:19 J	-9200735.73	-9200735.57	-9200735.41	0.0492	0.0355
Saturn	-29902-05-06 01:40 J	-9200157.65	-9200157.43	-9200157.19	0.0270	0.0097
Uranus	-29900-05-02 02:23 J	-9199430.64	-9199430.40	-9199430.16	0.0142	0.0051
Uranus	-29899-05-07 01:40 J	-9199060.66	-9199060.43	-9199060.20	0.0143	0.0050
Jupiter	-29892-10-09 15:50 J	-9196348.06	-9196347.84	-9196347.61	0.0493	0.0126
Saturn	-29888-10-31 05:59 J	-9194865.42	-9194865.25	-9194865.07	0.0290	0.0192
Jupiter	-29874-04-07 12:28 J	-9189959.21	-9189958.98	-9189958.76	0.0535	0.0019
Saturn	-29873-04-30 03:21 J	-9189570.57	-9189570.36	-9189570.13	0.0269	0.0116
Mars	-29866-09-17 21:07 J	-9186873.70	-9186873.62	-9186873.54	0.1860	0.1713
Uranus	-29861-11-03 01:40 J	-9185000.64	-9185000.43	-9185000.20	0.0136	0.0065
Uranus	-29860-11-07 16:47 J	-9184631.04	-9184630.80	-9184630.53	0.0136	0.0039
Saturn	-29858-11-08 09:21 J	-9183900.32	-9183900.11	-9183899.90	0.0290	0.0158
Saturn	-29843-05-07 07:26 J	-9178606.38	-9178606.19	-9178605.97	0.0270	0.0155
Neptune	-29839-10-04 00:43 J	-9176995.60	-9176995.47	-9176995.28	0.0088	0.0069
Neptune	-29838-10-06 16:47 J	-9176628.04	-9176627.80	-9176627.53	0.0088	0.0030
Neptune	-29837-10-08 03:50 J	-9176260.58	-9176260.34	-9176260.09	0.0088	0.0017
Neptune	-29836-10-10 14:52 J	-9175893.07	-9175892.88	-9175892.65	0.0088	0.0055
Saturn	-29829-11-02 00:57 J	-9173313.69	-9173313.46	-9173313.24	0.0290	0.0112
Pluto	-29827-12-23 01:11 J	-9172532.68	-9172532.45	-9172532.21	0.0077	0.0031
Mars	-29825-03-18 02:09 J	-9172081.56	-9172081.41	-9172081.25	0.1659	0.1004
Jupiter	-29821-10-04 08:23 J	-9170420.25	-9170420.15	-9170420.04	0.0491	0.0440
Uranus	-29816-05-02 09:21 J	-9168749.35	-9168749.11	-9168748.88	0.0142	0.0057
Uranus	-29815-05-07 09:21 J	-9168379.32	-9168379.11	-9168378.88	0.0143	0.0067
Saturn	-29814-05-02 13:26 J	-9168019.17	-9168018.94	-9168018.70	0.0269	0.0054
Jupiter	-29809-10-08 10:47 J	-9166033.29	-9166033.05	-9166032.81	0.0492	0.0036

Saturn	-29799-11-10 01:55 J	-9162348.55	-9162348.42	-9162348.27	0.0291	0.0235
Jupiter	-29791-04-06 21:21 J	-9159643.84	-9159643.61	-9159643.38	0.0535	0.0072
Saturn	-29784-05-08 11:02 J	-9157055.19	-9157055.04	-9157054.90	0.0269	0.0216
Jupiter	-29779-04-11 12:28 J	-9155256.06	-9155255.98	-9155255.89	0.0534	0.0493
Uranus	-29777-11-03 10:47 J	-9154319.27	-9154319.05	-9154318.81	0.0136	0.0053
Uranus	-29776-11-08 00:43 J	-9153949.72	-9153949.47	-9153949.21	0.0136	0.0040
Saturn	-29770-11-04 13:40 J	-9151762.18	-9151761.93	-9151761.68	0.0290	0.0037
Neptune	-29756-04-03 23:02 J	-9146862.72	-9146862.54	-9146862.33	0.0089	0.0061
Neptune	-29755-04-06 11:02 J	-9146495.28	-9146495.04	-9146494.80	0.0089	0.0013
Saturn	-29755-05-04 01:26 J	-9146467.67	-9146467.44	-9146467.20	0.0269	0.0009
Neptune	-29754-04-08 18:14 J	-9146127.98	-9146127.74	-9146127.48	0.0089	0.0025
Neptune	-29753-04-10 10:33 J	-9145760.19	-9145760.06	-9145759.92	0.0089	0.0074
Uranus	-29732-05-02 15:50 J	-9138068.06	-9138067.84	-9138067.58	0.0142	0.0048
Uranus	-29731-05-07 17:16 J	-9137697.99	-9137697.78	-9137697.54	0.0143	0.0055
Saturn	-29726-04-28 19:40 J	-9135880.81	-9135880.68	-9135880.53	0.0270	0.0220
Jupiter	-29726-10-08 20:23 J	-9135717.88	-9135717.65	-9135717.42	0.0492	0.0038
Jupiter	-29714-10-13 05:16 J	-9131330.34	-9131330.28	-9131330.20	0.0494	0.0471
Saturn	-29711-11-05 19:55 J	-9130210.92	-9130210.67	-9130210.42	0.0291	0.0037
Jupiter	-29708-04-05 08:52 J	-9129329.34	-9129329.13	-9129328.92	0.0536	0.0213
Mars	-29699-03-15 04:47 J	-9126063.41	-9126063.30	-9126063.19	0.1651	0.1297
Jupiter	-29696-04-10 16:33 J	-9124940.97	-9124940.81	-9124940.65	0.0535	0.0365
Saturn	-29696-05-05 08:23 J	-9124916.39	-9124916.15	-9124915.91	0.0269	0.0068
Uranus	-29693-11-03 18:57 J	-9123637.92	-9123637.71	-9123637.48	0.0136	0.0060
Uranus	-29692-11-08 07:55 J	-9123268.42	-9123268.17	-9123267.92	0.0136	0.0046
Saturn	-29682-10-30 21:50 J	-9119624.70	-9119624.59	-9119624.47	0.0290	0.0253
Neptune	-29675-10-03 15:35 J	-9117094.91	-9117094.85	-9117094.78	0.0088	0.0085
Neptune	-29674-10-06 03:07 J	-9116727.55	-9116727.37	-9116727.15	0.0088	0.0052
Neptune	-29673-10-07 13:55 J	-9116360.19	-9116359.92	-9116359.64	0.0088	0.0002
Neptune	-29672-10-10 05:45 J	-9115992.48	-9115992.26	-9115992.01	0.0088	0.0034
Neptune	-29671-10-12 12:14 J	-9115625.05	-9115624.99	-9115624.90	0.0088	0.0084

Saturn	-29667-04-30 00:14 J	-9114329.68	-9114329.49	-9114329.30	0.0270	0.0164
Pluto	-29665-06-20 20:52 J	-9113546.87	-9113546.63	-9113546.36	0.0068	0.0011
Saturn	-29652-11-07 02:38 J	-9108659.62	-9108659.39	-9108659.17	0.0291	0.0104
Uranus	-29648-05-02 23:16 J	-9107386.75	-9107386.53	-9107386.28	0.0142	0.0051
Uranus	-29647-05-08 00:43 J	-9107016.67	-9107016.47	-9107016.24	0.0143	0.0071
Jupiter	-29643-10-08 01:26 J	-9105402.68	-9105402.44	-9105402.20	0.0492	0.0096
Saturn	-29637-05-06 07:40 J	-9103365.39	-9103365.18	-9103364.94	0.0269	0.0124
Jupiter	-29631-10-12 10:47 J	-9101015.18	-9101015.05	-9101014.92	0.0493	0.0405
Jupiter	-29625-04-04 20:23 J	-9099013.83	-9099013.65	-9099013.46	0.0537	0.0303
Saturn	-29623-11-01 05:45 J	-9098073.44	-9098073.26	-9098073.06	0.0290	0.0188
Mars	-29620-03-17 01:11 J	-9097206.62	-9097206.45	-9097206.28	0.1654	0.0415
Jupiter	-29613-04-09 18:14 J	-9094625.94	-9094625.74	-9094625.53	0.0535	0.0281
Uranus	-29609-11-04 03:21 J	-9092956.60	-9092956.36	-9092956.13	0.0136	0.0047
Saturn	-29608-05-01 06:43 J	-9092778.43	-9092778.22	-9092778.00	0.0269	0.0111
Uranus	-29608-11-08 14:09 J	-9092587.15	-9092586.91	-9092586.64	0.0136	0.0044
Saturn	-29593-11-08 10:33 J	-9087108.25	-9087108.06	-9087107.85	0.0291	0.0163
Neptune	-29592-04-03 11:31 J	-9086962.12	-9086962.02	-9086961.86	0.0089	0.0077
Neptune	-29591-04-05 18:57 J	-9086594.93	-9086594.71	-9086594.46	0.0089	0.0040
Neptune	-29590-04-08 11:45 J	-9086227.25	-9086227.01	-9086226.75	0.0089	0.0011
Neptune	-29589-04-09 15:50 J	-9085860.04	-9085859.84	-9085859.61	0.0089	0.0048
Mars	-29582-09-16 09:21 J	-9083144.31	-9083144.11	-9083143.91	0.1866	0.0216
Pluto	-29580-12-23 23:31 J	-9082314.65	-9082314.52	-9082314.36	0.0077	0.0064
Pluto	-29579-12-26 06:28 J	-9081947.26	-9081947.23	-9081947.12	0.0076	0.0074
Saturn	-29578-05-08 07:26 J	-9081814.37	-9081814.19	-9081814.00	0.0268	0.0176
Uranus	-29564-05-03 08:52 J	-9076705.37	-9076705.13	-9076704.88	0.0142	0.0041
Saturn	-29564-11-02 05:59 J	-9076522.48	-9076522.25	-9076522.02	0.0291	0.0131
Uranus	-29563-05-08 10:47 J	-9076335.27	-9076335.05	-9076334.82	0.0143	0.0062
Jupiter	-29560-10-07 07:55 J	-9075087.39	-9075087.17	-9075086.95	0.0491	0.0152
Saturn	-29549-05-02 11:16 J	-9071227.26	-9071227.03	-9071226.79	0.0269	0.0058
Jupiter	-29548-10-11 23:02 J	-9070699.70	-9070699.54	-9070699.36	0.0493	0.0345

Jupiter	-29542-04-04 21:50 J	-9068698.75	-9068698.59	-9068698.42	0.0537	0.0382
Mars	-29541-03-18 22:47 J	-9068349.67	-9068349.55	-9068349.42	0.1655	0.1197
Saturn	-29534-11-10 15:21 J	-9065557.01	-9065556.86	-9065556.69	0.0291	0.0218
Jupiter	-29530-04-09 20:09 J	-9064310.87	-9064310.66	-9064310.45	0.0535	0.0156
Uranus	-29525-11-04 11:16 J	-9062275.24	-9062275.03	-9062274.79	0.0136	0.0056
Uranus	-29524-11-08 21:50 J	-9061905.83	-9061905.59	-9061905.34	0.0136	0.0053
Saturn	-29519-05-09 10:19 J	-9060263.19	-9060263.07	-9060262.94	0.0268	0.0223
Neptune	-29510-10-05 11:02 J	-9056827.20	-9056827.04	-9056826.85	0.0088	0.0066
Neptune	-29509-10-07 04:33 J	-9056459.55	-9056459.31	-9056459.06	0.0088	0.0026
Neptune	-29508-10-09 10:47 J	-9056092.29	-9056092.05	-9056091.78	0.0088	0.0020
Neptune	-29507-10-12 05:59 J	-9055724.42	-9055724.25	-9055724.04	0.0088	0.0059
Saturn	-29505-11-03 05:16 J	-9054971.52	-9054971.28	-9054971.04	0.0291	0.0077
Saturn	-29490-05-04 09:50 J	-9049676.34	-9049676.09	-9049675.84	0.0269	0.0009
Uranus	-29480-05-03 19:11 J	-9046023.94	-9046023.70	-9046023.46	0.0142	0.0041
Uranus	-29479-05-08 20:52 J	-9045653.83	-9045653.63	-9045653.42	0.0143	0.0079
Jupiter	-29477-10-06 23:16 J	-9044771.75	-9044771.53	-9044771.31	0.0491	0.0188
Saturn	-29475-11-11 12:57 J	-9044006.07	-9044005.96	-9044005.86	0.0291	0.0265
Jupiter	-29465-10-11 04:19 J	-9040384.49	-9040384.32	-9040384.12	0.0493	0.0303
Saturn	-29461-04-28 13:11 J	-9039089.07	-9039088.95	-9039088.81	0.0269	0.0224
Jupiter	-29459-04-04 00:14 J	-9038383.55	-9038383.49	-9038383.41	0.0537	0.0505
Jupiter	-29447-04-09 04:04 J	-9033995.57	-9033995.33	-9033995.10	0.0536	0.0067
Saturn	-29446-11-05 07:40 J	-9033420.42	-9033420.18	-9033419.94	0.0291	0.0027
Uranus	-29441-11-04 20:38 J	-9031593.88	-9031593.64	-9031593.40	0.0136	0.0039
Uranus	-29440-11-09 05:16 J	-9031224.51	-9031224.28	-9031224.02	0.0136	0.0049
Saturn	-29431-05-05 05:16 J	-9028125.53	-9028125.28	-9028125.03	0.0269	0.0041
Neptune	-29427-04-05 12:57 J	-9026694.14	-9026693.96	-9026693.76	0.0089	0.0059
Neptune	-29426-04-07 17:02 J	-9026327.04	-9026326.79	-9026326.53	0.0089	0.0009
Neptune	-29425-04-09 10:33 J	-9025959.30	-9025959.06	-9025958.81	0.0089	0.0028
Neptune	-29424-04-11 15:21 J	-9025591.97	-9025591.86	-9025591.72	0.0089	0.0077
Pluto	-29418-06-22 23:02 J	-9023328.77	-9023328.54	-9023328.29	0.0068	0.0024

Pluto	-29417-06-23 07:55 J	-9022962.19	-9022962.17	-9022962.12	0.0068	0.0068
Mars	-29415-03-16 05:45 J	-9022331.42	-9022331.26	-9022331.11	0.1648	0.1024
Saturn	-29402-04-30 17:31 J	-9017537.95	-9017537.77	-9017537.59	0.0269	0.0174
Uranus	-29397-04-29 17:16 J	-9015711.80	-9015711.78	-9015711.76	0.0142	0.0141
Uranus	-29396-05-04 04:33 J	-9015342.55	-9015342.31	-9015342.06	0.0142	0.0032
Uranus	-29395-05-09 06:14 J	-9014972.44	-9014972.24	-9014972.01	0.0143	0.0072
Jupiter	-29394-10-07 02:09 J	-9014456.62	-9014456.41	-9014456.20	0.0491	0.0235
Saturn	-29387-11-06 11:16 J	-9011869.28	-9011869.03	-9011868.79	0.0291	0.0024
Jupiter	-29382-10-11 21:07 J	-9010068.82	-9010068.62	-9010068.42	0.0492	0.0246
Saturn	-29372-05-06 05:31 J	-9006574.49	-9006574.27	-9006574.04	0.0268	0.0090
Jupiter	-29364-04-08 09:07 J	-9003680.34	-9003680.12	-9003679.89	0.0536	0.0006
Saturn	-29358-10-30 16:47 J	-9001283.85	-9001283.80	-9001283.73	0.0290	0.0280
Uranus	-29358-11-01 09:50 J	-9001282.13	-9001282.09	-9001282.03	0.0137	0.0134
Uranus	-29357-11-05 05:59 J	-9000912.48	-9000912.25	-9000912.01	0.0136	0.0048
Uranus	-29356-11-09 14:09 J	-9000543.13	-9000542.91	-9000542.66	0.0136	0.0061
Neptune	-29346-10-05 02:38 J	-8996926.44	-8996926.39	-8996926.27	0.0088	0.0083
Neptune	-29345-10-06 08:52 J	-8996559.33	-8996559.13	-8996558.89	0.0088	0.0049
Neptune	-29344-10-09 04:47 J	-8996191.56	-8996191.30	-8996191.04	0.0088	0.0003
Saturn	-29343-05-01 17:31 J	-8995986.99	-8995986.77	-8995986.55	0.0269	0.0126
Neptune	-29343-10-11 09:50 J	-8995824.30	-8995824.09	-8995823.83	0.0088	0.0037
Neptune	-29342-10-14 04:19 J	-8995456.34	-8995456.32	-8995456.29	0.0088	0.0087
Mars	-29336-03-18 12:57 J	-8993474.15	-8993473.96	-8993473.78	0.1651	0.0038
Pluto	-29332-12-27 05:45 J	-8991729.46	-8991729.26	-8991729.03	0.0076	0.0040
Saturn	-29328-11-07 11:45 J	-8990318.25	-8990318.01	-8990317.76	0.0291	0.0073
Saturn	-29313-05-07 11:16 J	-8985023.23	-8985023.03	-8985022.82	0.0268	0.0137
Uranus	-29312-05-04 12:57 J	-8984661.20	-8984660.96	-8984660.71	0.0142	0.0032
Uranus	-29311-05-09 14:23 J	-8984291.10	-8984290.90	-8984290.69	0.0143	0.0085
Jupiter	-29311-10-06 18:57 J	-8984140.90	-8984140.71	-8984140.52	0.0491	0.0286
Jupiter	-29299-10-11 00:43 J	-8979753.69	-8979753.47	-8979753.24	0.0492	0.0189
Saturn	-29299-10-31 19:11 J	-8979732.83	-8979732.70	-8979732.55	0.0290	0.0234

Mars	-29298-09-16 02:23 J	-8979413.53	-8979413.40	-8979413.27	0.1872	0.1357
Saturn	-29284-05-02 14:09 J	-8974436.15	-8974435.91	-8974435.67	0.0269	0.0079
Jupiter	-29281-04-07 15:21 J	-8973365.09	-8973364.86	-8973364.63	0.0536	0.0115
Uranus	-29273-11-05 15:21 J	-8970231.10	-8970230.86	-8970230.61	0.0136	0.0031
Uranus	-29272-11-09 22:19 J	-8969861.80	-8969861.57	-8969861.32	0.0136	0.0055
Jupiter	-29269-04-12 08:38 J	-8968977.24	-8968977.14	-8968977.04	0.0535	0.0482
Saturn	-29269-11-08 09:07 J	-8968767.34	-8968767.12	-8968766.88	0.0291	0.0123
Neptune	-29263-04-04 18:43 J	-8966793.87	-8966793.72	-8966793.58	0.0089	0.0073
Neptune	-29262-04-07 11:45 J	-8966426.23	-8966426.01	-8966425.76	0.0089	0.0037
Neptune	-29261-04-08 17:02 J	-8966059.02	-8966058.79	-8966058.53	0.0089	0.0014
Neptune	-29260-04-11 07:26 J	-8965691.39	-8965691.19	-8965690.95	0.0089	0.0050
Mars	-29257-03-20 11:02 J	-8964617.09	-8964617.04	-8964616.98	0.1652	0.1551
Saturn	-29254-05-09 15:21 J	-8963472.02	-8963471.86	-8963471.67	0.0268	0.0188
Saturn	-29240-11-02 03:35 J	-8958181.54	-8958181.35	-8958181.16	0.0290	0.0182
Uranus	-29229-04-30 07:11 J	-8954349.26	-8954349.20	-8954349.11	0.0142	0.0135
Uranus	-29228-05-04 19:40 J	-8953979.92	-8953979.68	-8953979.43	0.0142	0.0029
Jupiter	-29228-10-05 22:04 J	-8953825.75	-8953825.58	-8953825.39	0.0491	0.0336
Uranus	-29227-05-09 20:38 J	-8953609.85	-8953609.64	-8953609.42	0.0143	0.0076
Saturn	-29225-05-03 14:38 J	-8952885.12	-8952884.89	-8952884.64	0.0269	0.0030
Jupiter	-29216-10-10 11:59 J	-8949438.22	-8949438.00	-8949437.78	0.0492	0.0122
Saturn	-29210-11-10 12:57 J	-8947216.15	-8947215.96	-8947215.76	0.0291	0.0179
Jupiter	-29198-04-07 12:57 J	-8943050.17	-8943049.96	-8943049.74	0.0537	0.0205
Saturn	-29196-04-29 00:14 J	-8942297.56	-8942297.49	-8942297.39	0.0270	0.0251
Saturn	-29195-05-10 16:33 J	-8941920.92	-8941920.81	-8941920.69	0.0268	0.0237
Uranus	-29190-11-02 03:07 J	-8939919.46	-8939919.37	-8939919.26	0.0137	0.0126
Uranus	-29189-11-06 00:14 J	-8939549.73	-8939549.49	-8939549.24	0.0136	0.0041
Uranus	-29188-11-10 06:43 J	-8939180.43	-8939180.22	-8939179.98	0.0136	0.0069
Jupiter	-29186-04-12 22:04 J	-8938661.71	-8938661.58	-8938661.44	0.0535	0.0422
Neptune	-29181-10-06 02:09 J	-8936658.57	-8936658.41	-8936658.21	0.0088	0.0064
Saturn	-29181-11-03 10:04 J	-8936630.30	-8936630.08	-8936629.84	0.0290	0.0122

Neptune	-29180-10-08 08:38 J	-8936291.38	-8936291.14	-8936290.89	0.0088	0.0023
Neptune	-29179-10-11 02:23 J	-8935923.64	-8935923.40	-8935923.12	0.0088	0.0023
Neptune	-29178-10-13 11:45 J	-8935556.17	-8935556.01	-8935555.82	0.0088	0.0063
Pluto	-29171-06-24 02:38 J	-8933110.59	-8933110.39	-8933110.14	0.0068	0.0032
Pluto	-29170-06-25 12:14 J	-8932744.11	-8932743.99	-8932743.83	0.0068	0.0057
Saturn	-29166-05-05 21:50 J	-8931333.83	-8931333.59	-8931333.36	0.0269	0.0023
Saturn	-29151-11-12 01:40 J	-8925664.55	-8925664.43	-8925664.29	0.0291	0.0245
Uranus	-29145-04-30 12:57 J	-8923667.96	-8923667.96	-8923667.90	0.0142	0.0141
Jupiter	-29145-10-05 07:26 J	-8923510.31	-8923510.19	-8923510.06	0.0490	0.0405
Uranus	-29144-05-05 02:23 J	-8923298.63	-8923298.40	-8923298.15	0.0142	0.0029
Uranus	-29143-05-10 02:09 J	-8922928.60	-8922928.41	-8922928.19	0.0143	0.0086
Saturn	-29137-04-30 04:04 J	-8920746.49	-8920746.33	-8920746.14	0.0270	0.0194
Jupiter	-29133-10-09 17:02 J	-8919123.04	-8919122.79	-8919122.55	0.0491	0.0040
Mars	-29131-03-17 02:23 J	-8918599.56	-8918599.40	-8918599.24	0.1645	0.0818
Saturn	-29122-11-05 17:02 J	-8915079.04	-8915078.79	-8915078.54	0.0290	0.0056
Jupiter	-29121-10-14 01:26 J	-8914735.48	-8914735.44	-8914735.38	0.0493	0.0479
Jupiter	-29115-04-06 21:35 J	-8912734.78	-8912734.60	-8912734.42	0.0536	0.0306
Saturn	-29107-05-07 07:11 J	-8909782.43	-8909782.20	-8909781.97	0.0270	0.0080
Uranus	-29106-11-02 11:16 J	-8909238.04	-8909238.03	-8909238.00	0.0137	0.0136
Uranus	-29105-11-06 08:38 J	-8908868.39	-8908868.14	-8908867.89	0.0136	0.0024
Uranus	-29104-11-10 14:23 J	-8908499.12	-8908498.90	-8908498.66	0.0136	0.0061
Jupiter	-29103-04-11 16:19 J	-8908347.02	-8908346.82	-8908346.63	0.0535	0.0302
Neptune	-29098-04-06 18:28 J	-8906525.92	-8906525.73	-8906525.54	0.0089	0.0057
Neptune	-29097-04-08 08:23 J	-8906158.41	-8906158.15	-8906157.89	0.0089	0.0007
Neptune	-29096-04-10 17:59 J	-8905790.96	-8905790.75	-8905790.50	0.0089	0.0031
Neptune	-29095-04-13 03:21 J	-8905423.46	-8905423.36	-8905423.23	0.0089	0.0080
Pluto	-29085-12-28 10:19 J	-8901511.27	-8901511.07	-8901510.84	0.0076	0.0040
Saturn	-29078-05-02 07:11 J	-8899195.40	-8899195.20	-8899194.97	0.0269	0.0134
Saturn	-29063-11-07 04:04 J	-8893527.58	-8893527.33	-8893527.08	0.0290	0.0019
Jupiter	-29062-10-05 11:45 J	-8893195.06	-8893195.01	-8893194.95	0.0490	0.0475

Uranus	-29061-04-30 19:40 J	-8892986.77	-8892986.68	-8892986.57	0.0142	0.0130
Uranus	-29060-05-05 09:50 J	-8892617.32	-8892617.09	-8892616.84	0.0142	0.0027
Uranus	-29059-05-10 08:52 J	-8892247.33	-8892247.13	-8892246.91	0.0143	0.0080
Mars	-29052-03-19 09:21 J	-8889742.31	-8889742.11	-8889741.92	0.1647	0.0191
Jupiter	-29050-10-09 17:59 J	-8888807.98	-8888807.75	-8888807.52	0.0492	0.0039
Saturn	-29048-05-08 14:09 J	-8888231.11	-8888230.91	-8888230.69	0.0270	0.0138
Jupiter	-29038-10-14 10:04 J	-8884420.22	-8884420.08	-8884419.93	0.0492	0.0395
Saturn	-29034-11-01 20:52 J	-8882940.76	-8882940.63	-8882940.50	0.0290	0.0247
Jupiter	-29032-04-05 12:43 J	-8882420.10	-8882419.97	-8882419.83	0.0537	0.0441
Uranus	-29022-11-02 18:43 J	-8878556.82	-8878556.72	-8878556.58	0.0137	0.0120
Uranus	-29021-11-06 16:04 J	-8878187.07	-8878186.83	-8878186.57	0.0136	0.0036
Jupiter	-29020-04-10 16:04 J	-8878032.04	-8878031.83	-8878031.63	0.0536	0.0188
Uranus	-29020-11-10 22:19 J	-8877817.78	-8877817.57	-8877817.35	0.0136	0.0075
Saturn	-29019-05-03 16:19 J	-8877644.04	-8877643.82	-8877643.59	0.0269	0.0073
Neptune	-29017-10-05 05:59 J	-8876758.32	-8876758.25	-8876758.12	0.0088	0.0081
Neptune	-29016-10-07 23:16 J	-8876390.75	-8876390.53	-8876390.29	0.0088	0.0046
Neptune	-29015-10-10 09:21 J	-8876023.36	-8876023.11	-8876022.85	0.0088	0.0005
Neptune	-29014-10-12 21:35 J	-8875655.83	-8875655.60	-8875655.34	0.0088	0.0039
Saturn	-29004-11-08 21:21 J	-8871975.83	-8871975.61	-8871975.38	0.0290	0.0099

29TH MILLENNIUM BCE

This is a list of transits of Moon in the 29th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Saturn	-28989-05-09 17:31 J	-8866679.93	-8866679.77	-8866679.59	0.0269	0.0195
Uranus	-28977-05-01 04:47 J	-8862305.36	-8862305.30	-8862305.21	0.0142	0.0135
Uranus	-28976-05-05 19:55 J	-8861935.91	-8861935.67	-8861935.43	0.0142	0.0021
Uranus	-28975-05-10 17:31 J	-8861565.95	-8861565.77	-8861565.55	0.0143	0.0091
Saturn	-28975-11-03 11:16 J	-8861389.24	-8861389.03	-8861388.82	0.0290	0.0169
Jupiter	-28967-10-09 02:38 J	-8858492.63	-8858492.39	-8858492.16	0.0491	0.0124
Saturn	-28960-05-05 05:59 J	-8856092.49	-8856092.25	-8856092.02	0.0269	0.0012
Jupiter	-28955-10-13 04:33 J	-8854105.49	-8854105.31	-8854105.12	0.0492	0.0304
Saturn	-28945-11-10 19:11 J	-8850423.89	-8850423.70	-8850423.51	0.0291	0.0180
Uranus	-28938-11-03 03:35 J	-8847875.41	-8847875.35	-8847875.25	0.0137	0.0129
Jupiter	-28937-04-09 18:57 J	-8847716.94	-8847716.71	-8847716.47	0.0536	0.0090
Uranus	-28937-11-07 01:11 J	-8847505.70	-8847505.45	-8847505.19	0.0136	0.0017
Uranus	-28936-11-11 06:57 J	-8847136.42	-8847136.21	-8847135.98	0.0136	0.0066
Mars	-28935-09-18 19:55 J	-8846824.83	-8846824.67	-8846824.52	0.1873	0.1165
Neptune	-28934-04-06 08:52 J	-8846625.25	-8846625.13	-8846624.94	0.0089	0.0072
Neptune	-28933-04-07 19:40 J	-8846257.90	-8846257.68	-8846257.44	0.0089	0.0034
Neptune	-28932-04-10 04:04 J	-8845890.58	-8845890.33	-8845890.07	0.0089	0.0015
Neptune	-28931-04-12 18:43 J	-8845522.91	-8845522.72	-8845522.51	0.0089	0.0053
Saturn	-28931-04-30 04:33 J	-8845505.42	-8845505.31	-8845505.19	0.0271	0.0240
Saturn	-28930-05-11 23:31 J	-8845128.59	-8845128.52	-8845128.43	0.0269	0.0253
Pluto	-28924-06-25 12:14 J	-8842892.21	-8842891.99	-8842891.76	0.0068	0.0030
Saturn	-28916-11-04 22:33 J	-8839837.79	-8839837.56	-8839837.31	0.0290	0.0093
Saturn	-28901-05-06 16:47 J	-8834541.04	-8834540.80	-8834540.56	0.0269	0.0050
Uranus	-28893-05-01 13:40 J	-8831624.05	-8831623.93	-8831623.77	0.0142	0.0120
Uranus	-28892-05-06 06:28 J	-8831254.47	-8831254.23	-8831253.99	0.0142	0.0019
Uranus	-28891-05-11 03:35 J	-8830884.55	-8830884.35	-8830884.15	0.0143	0.0090
Saturn	-28886-11-13 13:26 J	-8828872.03	-8828871.94	-8828871.81	0.0291	0.0260
Jupiter	-28884-10-07 21:21 J	-8828177.82	-8828177.61	-8828177.39	0.0491	0.0214
Saturn	-28872-05-01 10:33 J	-8823954.24	-8823954.06	-8823953.88	0.0270	0.0178
Jupiter	-28872-10-12 14:09 J	-8823790.11	-8823789.91	-8823789.70	0.0492	0.0222

Saturn	-28857-11-06 12:57 J	-8818286.21	-8818285.96	-8818285.72	0.0290	0.0017
Jupiter	-28854-04-09 09:07 J	-8817402.34	-8817402.12	-8817401.90	0.0536	0.0055
Uranus	-28854-11-03 13:11 J	-8817194.08	-8817193.95	-8817193.79	0.0137	0.0112
Uranus	-28853-11-07 10:04 J	-8816824.33	-8816824.08	-8816823.82	0.0136	0.0027
Neptune	-28852-10-07 06:57 J	-8816490.36	-8816490.21	-8816490.01	0.0088	0.0063
Uranus	-28852-11-11 16:19 J	-8816455.01	-8816454.82	-8816454.61	0.0136	0.0084
Neptune	-28851-10-09 18:57 J	-8816122.96	-8816122.71	-8816122.43	0.0088	0.0021
Neptune	-28850-10-12 10:47 J	-8815755.29	-8815755.05	-8815754.80	0.0088	0.0023
Neptune	-28849-10-13 17:59 J	-8815387.92	-8815387.75	-8815387.57	0.0088	0.0066
Mars	-28847-03-18 15:21 J	-8814867.03	-8814866.86	-8814866.70	0.1643	0.0463
Saturn	-28842-05-08 21:50 J	-8812989.81	-8812989.59	-8812989.35	0.0269	0.0109
Pluto	-28838-12-30 18:57 J	-8811292.89	-8811292.71	-8811292.48	0.0076	0.0044
Saturn	-28813-05-02 19:26 J	-8802402.89	-8802402.69	-8802402.47	0.0270	0.0119
Uranus	-28809-05-01 22:47 J	-8800942.64	-8800942.55	-8800942.41	0.0142	0.0126
Uranus	-28808-05-06 16:33 J	-8800573.05	-8800572.81	-8800572.56	0.0142	0.0010
Uranus	-28807-05-11 12:28 J	-8800203.16	-8800202.98	-8800202.78	0.0143	0.0099
Jupiter	-28801-10-07 08:09 J	-8797862.34	-8797862.16	-8797861.97	0.0490	0.0301
Saturn	-28798-11-09 04:04 J	-8796734.56	-8796734.33	-8796734.09	0.0291	0.0058
Jupiter	-28789-10-11 13:55 J	-8793475.15	-8793474.92	-8793474.68	0.0491	0.0147
Saturn	-28783-05-10 00:43 J	-8791438.66	-8791438.47	-8791438.28	0.0269	0.0167
Jupiter	-28771-04-08 17:02 J	-8787087.01	-8787086.79	-8787086.56	0.0537	0.0143
Uranus	-28770-11-04 00:14 J	-8786512.61	-8786512.49	-8786512.36	0.0137	0.0118
Neptune	-28769-04-07 03:50 J	-8786357.52	-8786357.34	-8786357.11	0.0089	0.0057
Saturn	-28769-11-02 01:40 J	-8786148.57	-8786148.43	-8786148.27	0.0290	0.0233
Uranus	-28769-11-07 20:38 J	-8786142.90	-8786142.64	-8786142.38	0.0136	0.0007
Mars	-28768-03-20 10:33 J	-8786010.23	-8786010.06	-8786009.88	0.1644	0.0475
Neptune	-28768-04-09 19:55 J	-8785989.92	-8785989.67	-8785989.42	0.0089	0.0005
Uranus	-28768-11-12 02:52 J	-8785773.57	-8785773.38	-8785773.15	0.0136	0.0076
Neptune	-28767-04-11 23:59 J	-8785622.72	-8785622.50	-8785622.24	0.0089	0.0032
Neptune	-28766-04-14 17:45 J	-8785254.84	-8785254.76	-8785254.64	0.0089	0.0082

Jupiter	-28759-04-13 12:57 J	-8782699.04	-8782698.96	-8782698.86	0.0536	0.0491
Saturn	-28754-05-05 05:16 J	-8780851.50	-8780851.28	-8780851.04	0.0270	0.0060
Saturn	-28739-11-10 16:33 J	-8775183.02	-8775182.81	-8775182.58	0.0291	0.0127
Saturn	-28725-04-29 08:52 J	-8770264.15	-8770264.13	-8770264.09	0.0270	0.0268
Uranus	-28725-05-02 06:43 J	-8770261.38	-8770261.22	-8770261.05	0.0142	0.0110
Uranus	-28724-05-07 01:55 J	-8769891.67	-8769891.42	-8769891.18	0.0142	0.0012
Saturn	-28724-05-11 05:16 J	-8769887.40	-8769887.28	-8769887.14	0.0268	0.0224
Uranus	-28723-05-11 20:38 J	-8769521.81	-8769521.64	-8769521.44	0.0143	0.0100
Jupiter	-28718-10-07 08:38 J	-8767547.29	-8767547.14	-8767546.98	0.0490	0.0375
Saturn	-28710-11-04 06:28 J	-8764597.42	-8764597.23	-8764597.01	0.0290	0.0170
Jupiter	-28706-10-11 22:19 J	-8763159.79	-8763159.57	-8763159.34	0.0491	0.0078
Saturn	-28695-05-06 10:04 J	-8759300.33	-8759300.08	-8759299.83	0.0269	0.0005
Jupiter	-28688-04-07 15:07 J	-8756772.08	-8756771.87	-8756771.66	0.0537	0.0227
Neptune	-28688-10-06 13:55 J	-8756590.00	-8756589.92	-8756589.77	0.0088	0.0081
Neptune	-28687-10-09 06:43 J	-8756222.42	-8756222.22	-8756221.98	0.0088	0.0046
Neptune	-28686-10-11 14:09 J	-8755855.18	-8755854.91	-8755854.65	0.0088	0.0006
Uranus	-28686-11-04 10:19 J	-8755831.22	-8755831.07	-8755830.89	0.0137	0.0102
Neptune	-28685-10-13 09:21 J	-8755487.33	-8755487.11	-8755486.87	0.0088	0.0040
Uranus	-28685-11-08 06:14 J	-8755461.50	-8755461.24	-8755460.97	0.0136	0.0016
Uranus	-28684-11-12 13:40 J	-8755092.11	-8755091.93	-8755091.75	0.0136	0.0094
Saturn	-28680-11-11 21:07 J	-8753631.81	-8753631.62	-8753631.42	0.0291	0.0188
Pluto	-28677-06-27 00:14 J	-8752673.73	-8752673.49	-8752673.23	0.0068	0.0006
Jupiter	-28676-04-12 17:16 J	-8752383.94	-8752383.78	-8752383.62	0.0536	0.0368
Saturn	-28666-05-01 12:14 J	-8748713.12	-8748712.99	-8748712.83	0.0270	0.0216
Mars	-28651-09-17 05:16 J	-8743095.49	-8743095.28	-8743095.08	0.1879	0.0720
Saturn	-28651-11-05 13:55 J	-8743046.14	-8743045.92	-8743045.70	0.0291	0.0110
Uranus	-28641-05-02 13:40 J	-8739580.06	-8739579.93	-8739579.79	0.0142	0.0120
Uranus	-28640-05-07 09:50 J	-8739210.33	-8739210.09	-8739209.84	0.0142	0.0004
Uranus	-28639-05-12 03:21 J	-8738840.53	-8738840.36	-8738840.17	0.0143	0.0103
Saturn	-28636-05-07 07:40 J	-8737749.43	-8737749.18	-8737748.93	0.0269	0.0044

Jupiter	-28635-10-06 18:57 J	-8737231.79	-8737231.71	-8737231.61	0.0490	0.0448
Jupiter	-28623-10-11 07:11 J	-8732844.44	-8732844.20	-8732843.95	0.0491	0.0021
Saturn	-28621-11-12 18:43 J	-8732080.86	-8732080.72	-8732080.57	0.0291	0.0239
Saturn	-28607-05-02 18:43 J	-8727161.90	-8727161.72	-8727161.54	0.0270	0.0167
Jupiter	-28605-04-06 19:55 J	-8726456.83	-8726456.67	-8726456.49	0.0537	0.0345
Neptune	-28605-04-06 19:40 J	-8726456.81	-8726456.68	-8726456.52	0.0089	0.0072 *
Neptune	-28604-04-08 23:59 J	-8726089.73	-8726089.50	-8726089.25	0.0089	0.0033
Neptune	-28603-04-11 17:59 J	-8725722.00	-8725721.75	-8725721.50	0.0089	0.0016
Neptune	-28602-04-13 21:50 J	-8725354.78	-8725354.59	-8725354.38	0.0089	0.0054
Uranus	-28602-11-04 21:50 J	-8725149.74	-8725149.59	-8725149.43	0.0137	0.0106
Uranus	-28601-11-08 16:47 J	-8724780.06	-8724779.80	-8724779.53	0.0136	0.0004
Uranus	-28600-11-13 00:43 J	-8724410.66	-8724410.47	-8724410.27	0.0136	0.0086
Jupiter	-28593-04-11 17:31 J	-8722068.97	-8722068.77	-8722068.57	0.0537	0.0277
Saturn	-28592-11-06 20:23 J	-8721494.88	-8721494.65	-8721494.41	0.0291	0.0060
Pluto	-28592-12-30 17:02 J	-8721440.94	-8721440.79	-8721440.59	0.0077	0.0057
Pluto	-28590-01-01 11:45 J	-8721074.05	-8721074.01	-8721073.91	0.0076	0.0074
Saturn	-28577-05-08 07:11 J	-8716198.43	-8716198.20	-8716197.97	0.0269	0.0091
Mars	-28563-03-20 02:23 J	-8711134.59	-8711134.40	-8711134.21	0.1641	0.0042
Saturn	-28562-11-14 17:02 J	-8710529.81	-8710529.79	-8710529.74	0.0291	0.0289
Uranus	-28557-05-02 20:23 J	-8708898.82	-8708898.65	-8708898.47	0.0142	0.0104
Uranus	-28556-05-07 17:59 J	-8708528.99	-8708528.75	-8708528.50	0.0142	0.0008
Uranus	-28555-05-12 10:33 J	-8708159.23	-8708159.06	-8708158.88	0.0143	0.0105
Jupiter	-28552-10-06 07:55 J	-8706916.18	-8706916.17	-8706916.15	0.0490	0.0488
Saturn	-28548-05-03 21:21 J	-8705610.83	-8705610.61	-8705610.39	0.0269	0.0119
Jupiter	-28540-10-10 14:38 J	-8702529.12	-8702528.89	-8702528.66	0.0490	0.0025
Saturn	-28533-11-07 21:07 J	-8699943.87	-8699943.62	-8699943.37	0.0291	0.0011
Jupiter	-28528-10-15 07:11 J	-8698141.22	-8698141.20	-8698141.16	0.0491	0.0486
Neptune	-28523-10-08 10:04 J	-8696322.25	-8696322.08	-8696321.89	0.0088	0.0063
Jupiter	-28522-04-06 23:45 J	-8696141.65	-8696141.51	-8696141.35	0.0538	0.0409
Neptune	-28522-10-11 05:45 J	-8695954.51	-8695954.26	-8695954.00	0.0088	0.0020

Neptune	-28521-10-12 11:02 J	-8695587.28	-8695587.04	-8695586.78	0.0088	0.0022
Neptune	-28520-10-15 05:16 J	-8695219.44	-8695219.28	-8695219.08	0.0088	0.0065
Saturn	-28518-05-10 11:02 J	-8694647.24	-8694647.04	-8694646.84	0.0268	0.0137
Uranus	-28518-11-05 07:11 J	-8694468.37	-8694468.20	-8694468.00	0.0137	0.0092
Uranus	-28517-11-09 01:55 J	-8694098.69	-8694098.42	-8694098.16	0.0136	0.0005
Uranus	-28516-11-13 10:33 J	-8693729.20	-8693729.06	-8693728.89	0.0136	0.0105
Jupiter	-28510-04-12 05:45 J	-8691753.47	-8691753.26	-8691753.06	0.0537	0.0209
Saturn	-28489-05-04 18:14 J	-8684059.98	-8684059.74	-8684059.49	0.0269	0.0075
Mars	-28484-03-22 02:23 J	-8682277.55	-8682277.40	-8682277.26	0.1642	0.0960
Saturn	-28474-11-09 15:35 J	-8678393.10	-8678392.85	-8678392.59	0.0291	0.0036
Uranus	-28473-05-03 05:16 J	-8678217.42	-8678217.28	-8678217.12	0.0142	0.0114
Uranus	-28472-05-08 03:35 J	-8677847.59	-8677847.35	-8677847.10	0.0142	0.0005
Uranus	-28471-05-12 18:14 J	-8677477.90	-8677477.74	-8677477.56	0.0143	0.0107
Saturn	-28459-05-11 14:23 J	-8673096.07	-8673095.90	-8673095.72	0.0268	0.0182
Jupiter	-28457-10-10 05:59 J	-8672213.49	-8672213.25	-8672213.01	0.0490	0.0066
Jupiter	-28445-10-14 11:16 J	-8667826.13	-8667826.03	-8667825.92	0.0491	0.0441
Saturn	-28445-11-02 07:11 J	-8667807.26	-8667807.20	-8667807.11	0.0290	0.0274
Neptune	-28440-04-08 16:19 J	-8666189.00	-8666188.82	-8666188.61	0.0089	0.0058
Jupiter	-28439-04-06 06:14 J	-8665826.31	-8665826.24	-8665826.15	0.0538	0.0500
Neptune	-28439-04-10 21:35 J	-8665821.85	-8665821.60	-8665821.35	0.0089	0.0006
Neptune	-28438-04-13 12:43 J	-8665454.20	-8665453.97	-8665453.71	0.0089	0.0031
Neptune	-28437-04-14 20:52 J	-8665086.71	-8665086.63	-8665086.52	0.0089	0.0082
Uranus	-28434-11-05 18:43 J	-8663786.88	-8663786.72	-8663786.53	0.0137	0.0095
Uranus	-28433-11-09 12:14 J	-8663417.25	-8663416.99	-8663416.72	0.0136	0.0014
Uranus	-28432-11-13 22:04 J	-8663047.74	-8663047.58	-8663047.39	0.0136	0.0096
Pluto	-28431-06-28 08:23 J	-8662821.15	-8662821.15	-8662821.10	0.0068	0.0067
Saturn	-28430-05-06 13:26 J	-8662509.18	-8662508.94	-8662508.69	0.0269	0.0033
Pluto	-28430-06-29 17:45 J	-8662454.99	-8662454.76	-8662454.51	0.0068	0.0023
Jupiter	-28427-04-11 07:40 J	-8661438.41	-8661438.18	-8661437.94	0.0537	0.0093
Saturn	-28415-11-10 13:11 J	-8656842.18	-8656841.95	-8656841.71	0.0291	0.0085

Saturn	-28401-04-30 18:43 J	-8651921.78	-8651921.72	-8651921.65	0.0270	0.0259
Saturn	-28400-05-12 13:26 J	-8651545.06	-8651544.94	-8651544.81	0.0268	0.0228
Uranus	-28389-05-03 16:19 J	-8647536.00	-8647535.82	-8647535.62	0.0142	0.0093
Uranus	-28388-05-08 15:35 J	-8647166.09	-8647165.85	-8647165.60	0.0142	0.0003
Uranus	-28387-05-13 05:45 J	-8646796.40	-8646796.26	-8646796.10	0.0143	0.0116
Saturn	-28386-11-04 07:55 J	-8646256.31	-8646256.17	-8646256.00	0.0290	0.0225
Jupiter	-28374-10-10 10:47 J	-8641898.29	-8641898.05	-8641897.82	0.0491	0.0101
Saturn	-28371-05-07 14:23 J	-8640958.14	-8640957.90	-8640957.67	0.0270	0.0012
Jupiter	-28362-10-15 03:50 J	-8637510.48	-8637510.34	-8637510.21	0.0491	0.0397
Neptune	-28359-10-07 23:45 J	-8636421.58	-8636421.51	-8636421.38	0.0088	0.0081
Mars	-28358-03-18 18:28 J	-8636259.81	-8636259.73	-8636259.66	0.1637	0.1469
Neptune	-28358-10-10 05:59 J	-8636054.45	-8636054.25	-8636054.02	0.0088	0.0047
Neptune	-28357-10-12 00:28 J	-8635686.75	-8635686.48	-8635686.21	0.0088	0.0005
Neptune	-28356-10-14 09:07 J	-8635319.34	-8635319.12	-8635318.88	0.0088	0.0039
Saturn	-28356-11-11 17:59 J	-8635290.96	-8635290.75	-8635290.54	0.0291	0.0140
Uranus	-28350-11-06 06:14 J	-8633105.44	-8633105.24	-8633105.04	0.0137	0.0080
Uranus	-28349-11-09 22:33 J	-8632735.83	-8632735.56	-8632735.30	0.0136	0.0008
Uranus	-28348-11-14 09:21 J	-8632366.23	-8632366.11	-8632365.97	0.0136	0.0116
Pluto	-28344-01-01 16:33 J	-8631222.05	-8631221.81	-8631221.55	0.0077	0.0017
Jupiter	-28344-04-10 10:04 J	-8631123.30	-8631123.08	-8631122.86	0.0537	0.0010
Saturn	-28342-05-02 19:11 J	-8630370.84	-8630370.70	-8630370.54	0.0270	0.0213
Saturn	-28327-11-05 06:43 J	-8624705.43	-8624705.22	-8624705.01	0.0290	0.0171
Saturn	-28312-05-08 19:40 J	-8619406.91	-8619406.68	-8619406.44	0.0270	0.0057
Uranus	-28305-05-04 03:50 J	-8616854.51	-8616854.34	-8616854.15	0.0142	0.0101
Uranus	-28304-05-09 03:35 J	-8616484.60	-8616484.35	-8616484.11	0.0142	0.0018
Uranus	-28303-05-13 16:04 J	-8616114.95	-8616114.83	-8616114.67	0.0143	0.0119
Saturn	-28297-11-13 01:11 J	-8613739.62	-8613739.45	-8613739.27	0.0291	0.0197
Jupiter	-28291-10-10 00:43 J	-8611582.68	-8611582.47	-8611582.24	0.0490	0.0154
Mars	-28288-09-19 17:59 J	-8610506.94	-8610506.75	-8610506.56	0.1880	0.0839
Saturn	-28283-05-03 17:31 J	-8608819.96	-8608819.77	-8608819.57	0.0270	0.0167

Mars	-28279-03-20 23:02 J	-8607402.74	-8607402.54	-8607402.34	0.1638	0.0149
Jupiter	-28279-10-14 05:31 J	-8607195.44	-8607195.27	-8607195.08	0.0491	0.0329
Neptune	-28276-04-07 19:55 J	-8606288.78	-8606288.67	-8606288.51	0.0089	0.0075
Neptune	-28275-04-10 10:19 J	-8605921.29	-8605921.07	-8605920.81	0.0089	0.0035
Neptune	-28274-04-12 19:26 J	-8605553.93	-8605553.69	-8605553.44	0.0089	0.0013
Neptune	-28273-04-14 05:31 J	-8605186.47	-8605186.27	-8605186.05	0.0089	0.0053
Saturn	-28268-11-06 08:23 J	-8603154.38	-8603154.15	-8603153.92	0.0290	0.0114
Uranus	-28266-11-06 19:55 J	-8602423.86	-8602423.67	-8602423.46	0.0137	0.0080
Uranus	-28265-11-10 11:02 J	-8602054.30	-8602054.04	-8602053.77	0.0136	0.0027
Uranus	-28264-11-14 22:33 J	-8601684.68	-8601684.56	-8601684.39	0.0136	0.0110
Jupiter	-28261-04-09 20:52 J	-8600807.86	-8600807.63	-8600807.40	0.0537	0.0082
Saturn	-28253-05-09 23:45 J	-8597855.74	-8597855.51	-8597855.28	0.0270	0.0104
Jupiter	-28249-04-14 12:14 J	-8596420.10	-8596419.99	-8596419.88	0.0535	0.0467
Saturn	-28238-11-15 08:09 J	-8592188.26	-8592188.16	-8592188.04	0.0291	0.0262
Saturn	-28224-05-04 21:07 J	-8587268.83	-8587268.62	-8587268.40	0.0270	0.0116
Uranus	-28221-05-04 15:21 J	-8586173.07	-8586172.86	-8586172.65	0.0142	0.0079
Uranus	-28220-05-09 15:35 J	-8585803.10	-8585802.85	-8585802.60	0.0142	0.0014
Uranus	-28219-05-14 03:50 J	-8585433.42	-8585433.34	-8585433.21	0.0143	0.0130
Saturn	-28209-11-07 18:57 J	-8581602.95	-8581602.71	-8581602.47	0.0290	0.0047
Jupiter	-28208-10-09 02:23 J	-8581267.62	-8581267.40	-8581267.18	0.0490	0.0219
Mars	-28200-03-23 08:38 J	-8578545.26	-8578545.14	-8578545.02	0.1640	0.1257
Jupiter	-28196-10-13 14:38 J	-8576880.08	-8576879.89	-8576879.70	0.0491	0.0266
Saturn	-28194-05-12 00:14 J	-8576304.69	-8576304.49	-8576304.28	0.0270	0.0155
Neptune	-28194-10-09 17:45 J	-8576153.92	-8576153.76	-8576153.56	0.0088	0.0066
Neptune	-28193-10-11 03:21 J	-8575786.59	-8575786.36	-8575786.10	0.0088	0.0022
Neptune	-28192-10-13 15:50 J	-8575419.09	-8575418.84	-8575418.56	0.0088	0.0019
Neptune	-28191-10-16 05:59 J	-8575051.39	-8575051.25	-8575051.04	0.0088	0.0064
Pluto	-28184-06-30 06:43 J	-8572602.44	-8572602.22	-8572601.98	0.0068	0.0028
Pluto	-28183-07-01 15:35 J	-8572235.89	-8572235.85	-8572235.75	0.0068	0.0066
Uranus	-28182-11-07 08:52 J	-8571742.34	-8571742.13	-8571741.91	0.0137	0.0065

Uranus	-28181-11-10 23:02 J	-8571372.80	-8571372.54	-8571372.27	0.0136	0.0023
Uranus	-28180-11-15 11:59 J	-8571003.06	-8571003.00	-8571002.93	0.0136	0.0130
Jupiter	-28178-04-09 11:02 J	-8570493.25	-8570493.04	-8570492.82	0.0537	0.0204
Jupiter	-28166-04-14 19:40 J	-8566104.84	-8566104.68	-8566104.52	0.0536	0.0366
Saturn	-28165-05-06 07:11 J	-8565717.43	-8565717.20	-8565716.97	0.0270	0.0058
Saturn	-28150-11-10 12:28 J	-8560051.22	-8560050.98	-8560050.74	0.0290	0.0029
Uranus	-28137-05-05 00:57 J	-8555491.65	-8555491.46	-8555491.26	0.0142	0.0090
Uranus	-28136-05-10 01:26 J	-8555121.68	-8555121.44	-8555121.19	0.0142	0.0030
Saturn	-28135-05-13 03:35 J	-8554753.49	-8554753.35	-8554753.19	0.0270	0.0211
Uranus	-28135-05-14 12:57 J	-8554752.05	-8554751.96	-8554751.83	0.0143	0.0128
Jupiter	-28125-10-08 07:55 J	-8550952.36	-8550952.17	-8550951.99	0.0490	0.0294
Saturn	-28121-11-03 15:07 J	-8549464.99	-8549464.87	-8549464.74	0.0289	0.0248
Jupiter	-28113-10-12 19:26 J	-8546564.91	-8546564.69	-8546564.45	0.0491	0.0183
Neptune	-28111-04-09 17:59 J	-8546020.91	-8546020.75	-8546020.55	0.0089	0.0061
Neptune	-28110-04-12 03:07 J	-8545653.63	-8545653.37	-8545653.10	0.0089	0.0009
Neptune	-28109-04-13 17:16 J	-8545286.01	-8545285.78	-8545285.53	0.0089	0.0027
Neptune	-28108-04-15 22:33 J	-8544918.68	-8544918.56	-8544918.44	0.0089	0.0079
Saturn	-28106-05-08 18:43 J	-8544165.96	-8544165.72	-8544165.48	0.0270	0.0005
Uranus	-28098-11-07 23:31 J	-8541060.74	-8541060.52	-8541060.30	0.0137	0.0063
Pluto	-28097-01-04 19:11 J	-8541002.83	-8541002.70	-8541002.50	0.0076	0.0058
Uranus	-28097-11-11 11:59 J	-8540691.24	-8540691.00	-8540690.73	0.0136	0.0042
Uranus	-28096-11-16 01:55 J	-8540321.51	-8540321.42	-8540321.31	0.0136	0.0124
Jupiter	-28095-04-08 20:52 J	-8540177.81	-8540177.63	-8540177.44	0.0538	0.0306
Saturn	-28091-11-12 04:33 J	-8538499.54	-8538499.31	-8538499.07	0.0290	0.0109
Jupiter	-28083-04-13 17:45 J	-8535789.97	-8535789.76	-8535789.55	0.0536	0.0265
Saturn	-28077-05-02 14:23 J	-8533579.03	-8533578.90	-8533578.75	0.0271	0.0223
Mars	-28074-03-20 09:07 J	-8532527.25	-8532527.12	-8532526.98	0.1635	0.1038
Saturn	-28062-11-06 07:11 J	-8527913.40	-8527913.20	-8527913.00	0.0290	0.0167
Uranus	-28053-05-05 10:33 J	-8524810.28	-8524810.06	-8524809.84	0.0142	0.0070
Uranus	-28052-05-10 11:02 J	-8524440.28	-8524440.04	-8524439.79	0.0142	0.0022

Uranus	-28051-05-14 22:19 J	-8524070.60	-8524070.57	-8524070.49	0.0143	0.0139
Saturn	-28047-05-10 03:07 J	-8522614.60	-8522614.37	-8522614.12	0.0270	0.0069
Jupiter	-28042-10-08 11:16 J	-8520637.18	-8520637.03	-8520636.86	0.0489	0.0369
Saturn	-28032-11-13 17:59 J	-8516947.93	-8516947.75	-8516947.55	0.0291	0.0196
Neptune	-28030-10-08 20:52 J	-8516253.67	-8516253.63	-8516253.58	0.0088	0.0086
Jupiter	-28030-10-12 17:02 J	-8516250.02	-8516249.79	-8516249.56	0.0490	0.0095
Neptune	-28029-10-10 08:38 J	-8515886.34	-8515886.14	-8515885.90	0.0088	0.0052
Neptune	-28028-10-13 00:57 J	-8515518.71	-8515518.46	-8515518.20	0.0088	0.0000
Neptune	-28027-10-15 07:55 J	-8515151.40	-8515151.17	-8515150.91	0.0088	0.0035
Neptune	-28026-10-18 02:38 J	-8514783.40	-8514783.39	-8514783.33	0.0088	0.0087
Saturn	-28018-05-04 23:59 J	-8512027.68	-8512027.50	-8512027.30	0.0271	0.0162
Uranus	-28014-11-08 11:45 J	-8510379.24	-8510379.01	-8510378.77	0.0137	0.0050
Uranus	-28013-11-11 23:31 J	-8510009.76	-8510009.52	-8510009.25	0.0136	0.0039
Jupiter	-28012-04-07 14:52 J	-8509863.02	-8509862.88	-8509862.74	0.0537	0.0428
Mars	-28004-09-19 06:14 J	-8506776.43	-8506776.24	-8506776.06	0.1884	0.0170
Saturn	-28003-11-08 02:38 J	-8506361.62	-8506361.39	-8506361.16	0.0290	0.0083

28TH MILLENNIUM BCE

This is a list of transits of Moon in the 28th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-28000-04-12 12:28 J	-8505475.20	-8505474.98	-8505474.77	0.0537	0.0122		
Mars	-27995-03-22 04:33 J	-8503670.48	-8503670.31	-8503670.14	0.1636	0.0460		
Saturn	-27988-05-11 08:23 J	-8501063.37	-8501063.15	-8501062.93	0.0269	0.0130		

Saturn	-27973-11-15 08:52 J	-8495396.17	-8495396.13	-8495396.06	0.0291	0.0282
Uranus	-27969-05-05 19:11 J	-8494128.89	-8494128.70	-8494128.49	0.0142	0.0082
Uranus	-27968-05-10 19:55 J	-8493758.91	-8493758.67	-8493758.43	0.0142	0.0038
Uranus	-27967-05-15 06:57 J	-8493389.29	-8493389.21	-8493389.12	0.0143	0.0134
Saturn	-27959-05-06 13:26 J	-8490476.15	-8490475.94	-8490475.72	0.0271	0.0100
Jupiter	-27959-10-07 08:09 J	-8490322.23	-8490322.16	-8490322.07	0.0490	0.0455
Neptune	-27947-04-08 23:16 J	-8486120.62	-8486120.53	-8486120.39	0.0089	0.0080
Jupiter	-27947-10-12 01:55 J	-8485934.66	-8485934.42	-8485934.18	0.0490	0.0009
Neptune	-27946-04-11 14:52 J	-8485753.10	-8485752.88	-8485752.65	0.0089	0.0037
Neptune	-27945-04-12 19:40 J	-8485385.93	-8485385.68	-8485385.42	0.0089	0.0008
Neptune	-27944-04-15 12:43 J	-8485018.16	-8485017.97	-8485017.74	0.0089	0.0050
Saturn	-27944-11-09 21:50 J	-8484809.84	-8484809.59	-8484809.35	0.0290	0.0005
Pluto	-27938-07-01 15:35 J	-8482749.86	-8482749.85	-8482749.78	0.0068	0.0067
Pluto	-27937-07-02 07:11 J	-8482383.43	-8482383.20	-8482382.95	0.0068	0.0023
Jupiter	-27935-10-16 05:02 J	-8481547.39	-8481547.29	-8481547.17	0.0491	0.0433
Uranus	-27930-11-09 01:11 J	-8479697.68	-8479697.45	-8479697.21	0.0137	0.0048
Saturn	-27929-05-12 15:21 J	-8479512.01	-8479511.86	-8479511.68	0.0269	0.0192
Uranus	-27929-11-12 11:59 J	-8479328.23	-8479328.00	-8479327.74	0.0136	0.0056
Jupiter	-27917-04-11 15:21 J	-8475160.09	-8475159.86	-8475159.62	0.0537	0.0015
Mars	-27916-03-24 04:33 J	-8474813.37	-8474813.31	-8474813.25	0.1637	0.1549
Saturn	-27900-05-07 23:16 J	-8468924.77	-8468924.53	-8468924.29	0.0270	0.0038
Uranus	-27885-05-06 07:26 J	-8463447.41	-8463447.19	-8463446.96	0.0142	0.0060
Saturn	-27885-11-11 10:33 J	-8463258.30	-8463258.06	-8463257.81	0.0290	0.0078
Uranus	-27884-05-11 07:40 J	-8463077.42	-8463077.18	-8463076.93	0.0142	0.0032
Saturn	-27871-05-03 01:55 J	-8458337.51	-8458337.42	-8458337.31	0.0271	0.0246
Saturn	-27870-05-15 02:38 J	-8457960.45	-8457960.39	-8457960.30	0.0269	0.0254
Mars	-27869-03-18 09:50 J	-8457652.10	-8457652.09	-8457652.08	0.1632	0.1627
Neptune	-27865-10-09 15:50 J	-8455985.96	-8455985.84	-8455985.68	0.0088	0.0074
Jupiter	-27864-10-10 22:04 J	-8455619.81	-8455619.58	-8455619.34	0.0490	0.0071
Neptune	-27864-10-11 23:02 J	-8455618.79	-8455618.54	-8455618.28	0.0088	0.0026

Neptune	-27863-10-14 18:57 J	-8455250.97	-8455250.71	-8455250.45	0.0088	0.0012
Neptune	-27862-10-16 23:31 J	-8454883.68	-8454883.52	-8454883.29	0.0088	0.0059
Saturn	-27856-11-05 05:16 J	-8452672.43	-8452672.28	-8452672.12	0.0289	0.0219
Jupiter	-27852-10-15 15:50 J	-8451232.00	-8451231.84	-8451231.68	0.0491	0.0352
Pluto	-27851-01-05 04:04 J	-8451150.60	-8451150.33	-8451150.07	0.0077	0.0002
Uranus	-27847-11-04 16:33 J	-8449385.84	-8449385.81	-8449385.73	0.0137	0.0135
Uranus	-27846-11-09 12:57 J	-8449016.19	-8449015.96	-8449015.71	0.0137	0.0037
Uranus	-27845-11-12 23:02 J	-8448646.77	-8448646.54	-8448646.28	0.0136	0.0053
Saturn	-27841-05-09 02:23 J	-8447373.65	-8447373.40	-8447373.15	0.0270	0.0022
Jupiter	-27834-04-11 13:26 J	-8444845.16	-8444844.94	-8444844.72	0.0537	0.0088
Saturn	-27826-11-13 16:04 J	-8441707.04	-8441706.83	-8441706.61	0.0291	0.0153
Jupiter	-27822-04-16 15:21 J	-8440456.89	-8440456.86	-8440456.83	0.0536	0.0530
Saturn	-27812-05-04 10:33 J	-8436786.23	-8436786.06	-8436785.89	0.0271	0.0187
Uranus	-27801-05-06 20:38 J	-8432765.86	-8432765.64	-8432765.43	0.0142	0.0067
Uranus	-27800-05-11 20:23 J	-8432395.88	-8432395.65	-8432395.41	0.0142	0.0053
Saturn	-27797-11-06 19:11 J	-8431120.90	-8431120.70	-8431120.48	0.0290	0.0147
Mars	-27790-03-21 18:28 J	-8428794.91	-8428794.73	-8428794.56	0.1633	0.0645
Neptune	-27782-04-10 16:04 J	-8425853.00	-8425852.83	-8425852.66	0.0089	0.0066
Saturn	-27782-05-11 03:50 J	-8425822.57	-8425822.34	-8425822.10	0.0270	0.0078
Neptune	-27781-04-12 09:35 J	-8425485.35	-8425485.10	-8425484.85	0.0089	0.0013
Jupiter	-27781-10-10 10:04 J	-8425304.30	-8425304.08	-8425303.86	0.0490	0.0149
Neptune	-27780-04-14 13:11 J	-8425118.18	-8425117.95	-8425117.69	0.0089	0.0021
Neptune	-27779-04-17 04:33 J	-8424750.43	-8424750.31	-8424750.13	0.0089	0.0074
Jupiter	-27769-10-14 16:47 J	-8420916.99	-8420916.80	-8420916.59	0.0491	0.0276
Saturn	-27767-11-14 21:07 J	-8420155.76	-8420155.62	-8420155.45	0.0291	0.0223
Uranus	-27763-11-05 06:28 J	-8418704.30	-8418704.23	-8418704.13	0.0137	0.0130
Uranus	-27762-11-10 03:35 J	-8418334.59	-8418334.35	-8418334.10	0.0137	0.0033
Uranus	-27761-11-13 13:26 J	-8417965.17	-8417964.94	-8417964.71	0.0136	0.0070
Saturn	-27753-05-05 18:14 J	-8415234.94	-8415234.74	-8415234.53	0.0270	0.0133
Jupiter	-27751-04-10 15:50 J	-8414530.05	-8414529.84	-8414529.62	0.0538	0.0215

Jupiter	-27739-04-15 11:16 J	-8410142.16	-8410142.03	-8410141.89	0.0537	0.0437
Saturn	-27738-11-09 02:09 J	-8409569.65	-8409569.41	-8409569.17	0.0290	0.0080
Saturn	-27723-05-12 07:40 J	-8404271.37	-8404271.18	-8404270.96	0.0269	0.0134
Mars	-27720-09-18 04:19 J	-8403046.44	-8403046.32	-8403046.19	0.1887	0.1549
Uranus	-27717-05-07 11:02 J	-8402084.26	-8402084.04	-8402083.79	0.0142	0.0043
Uranus	-27716-05-12 10:47 J	-8401714.28	-8401714.05	-8401713.80	0.0142	0.0049
Mars	-27711-03-23 19:26 J	-8399937.83	-8399937.69	-8399937.54	0.1634	0.0921
Saturn	-27708-11-16 04:04 J	-8398604.36	-8398604.33	-8398604.28	0.0291	0.0286
Neptune	-27700-10-11 09:50 J	-8395718.27	-8395718.09	-8395717.88	0.0088	0.0058
Neptune	-27699-10-13 15:50 J	-8395351.09	-8395350.84	-8395350.58	0.0088	0.0008
Jupiter	-27698-10-10 16:04 J	-8394989.05	-8394988.83	-8394988.60	0.0490	0.0206
Neptune	-27698-10-16 10:04 J	-8394983.32	-8394983.08	-8394982.81	0.0088	0.0028
Neptune	-27697-10-17 18:14 J	-8394615.83	-8394615.74	-8394615.61	0.0088	0.0079
Saturn	-27694-05-07 20:23 J	-8393683.88	-8393683.65	-8393683.41	0.0270	0.0082
Pluto	-27691-07-03 23:02 J	-8392530.79	-8392530.54	-8392530.27	0.0068	0.0013
Jupiter	-27686-10-15 03:21 J	-8390601.57	-8390601.36	-8390601.16	0.0490	0.0218
Uranus	-27679-11-05 20:09 J	-8388022.77	-8388022.66	-8388022.50	0.0137	0.0117
Saturn	-27679-11-10 00:43 J	-8388018.72	-8388018.47	-8388018.21	0.0290	0.0020
Uranus	-27678-11-10 17:45 J	-8387653.00	-8387652.76	-8387652.50	0.0137	0.0020
Uranus	-27677-11-14 02:38 J	-8387283.60	-8387283.39	-8387283.15	0.0136	0.0070
Jupiter	-27668-04-09 16:47 J	-8384214.99	-8384214.80	-8384214.60	0.0538	0.0284
Saturn	-27664-05-13 12:57 J	-8382720.12	-8382719.96	-8382719.77	0.0269	0.0183
Jupiter	-27656-04-15 01:40 J	-8379826.58	-8379826.43	-8379826.26	0.0537	0.0380
Mars	-27641-09-21 23:31 J	-8374187.63	-8374187.52	-8374187.40	0.1885	0.1517
Saturn	-27635-05-08 16:04 J	-8372133.07	-8372132.83	-8372132.58	0.0270	0.0038
Uranus	-27634-05-04 12:43 J	-8371771.98	-8371771.97	-8371771.92	0.0141	0.0140
Uranus	-27633-05-08 00:14 J	-8371402.71	-8371402.49	-8371402.26	0.0142	0.0050
Uranus	-27632-05-12 23:31 J	-8371032.73	-8371032.52	-8371032.28	0.0142	0.0070
Saturn	-27620-11-10 21:50 J	-8366467.84	-8366467.59	-8366467.34	0.0291	0.0034
Neptune	-27618-04-10 04:04 J	-8365952.35	-8365952.33	-8365952.24	0.0089	0.0088

Neptune	-27617-04-11 09:21 J	-8365585.33	-8365585.11	-8365584.89	0.0089	0.0044
Neptune	-27616-04-14 00:43 J	-8365217.73	-8365217.47	-8365217.21	0.0089	0.0001
Neptune	-27615-04-16 08:23 J	-8364850.34	-8364850.15	-8364849.91	0.0089	0.0045
Jupiter	-27615-10-10 02:23 J	-8364673.58	-8364673.40	-8364673.21	0.0489	0.0271
Neptune	-27614-04-18 18:28 J	-8364482.75	-8364482.73	-8364482.64	0.0089	0.0088
Pluto	-27605-01-06 10:33 J	-8361298.26	-8361298.06	-8361297.85	0.0077	0.0048
Saturn	-27605-05-14 15:21 J	-8361168.98	-8361168.86	-8361168.73	0.0269	0.0230
Jupiter	-27603-10-14 15:07 J	-8360286.10	-8360285.87	-8360285.64	0.0490	0.0158
Uranus	-27595-11-06 11:16 J	-8357341.17	-8357341.03	-8357340.86	0.0137	0.0112
Uranus	-27594-11-11 09:35 J	-8356971.35	-8356971.10	-8356970.85	0.0137	0.0014
Uranus	-27593-11-14 17:59 J	-8356601.94	-8356601.75	-8356601.54	0.0136	0.0088
Saturn	-27591-11-04 17:59 J	-8355881.80	-8355881.75	-8355881.69	0.0289	0.0280
Mars	-27585-03-19 12:57 J	-8353920.07	-8353919.96	-8353919.85	0.1631	0.1303
Jupiter	-27585-04-09 01:55 J	-8353899.58	-8353899.42	-8353899.25	0.0538	0.0369
Saturn	-27576-05-09 14:09 J	-8350582.15	-8350581.91	-8350581.67	0.0270	0.0008
Jupiter	-27573-04-13 22:19 J	-8349511.77	-8349511.57	-8349511.36	0.0537	0.0269
Saturn	-27561-11-11 23:02 J	-8344916.77	-8344916.54	-8344916.31	0.0291	0.0088
Uranus	-27549-05-08 13:26 J	-8340721.18	-8340720.94	-8340720.70	0.0142	0.0028
Uranus	-27548-05-13 11:59 J	-8340351.22	-8340351.00	-8340350.76	0.0142	0.0063
Saturn	-27547-05-04 19:11 J	-8339994.83	-8339994.70	-8339994.57	0.0270	0.0228
Neptune	-27536-10-10 05:59 J	-8335818.31	-8335818.25	-8335818.15	0.0088	0.0083
Neptune	-27535-10-12 23:31 J	-8335450.75	-8335450.52	-8335450.26	0.0088	0.0034
Neptune	-27534-10-15 09:35 J	-8335083.35	-8335083.10	-8335082.85	0.0088	0.0004
Neptune	-27533-10-16 22:33 J	-8334715.75	-8334715.56	-8334715.32	0.0088	0.0052
Jupiter	-27532-10-09 16:47 J	-8334357.98	-8334357.80	-8334357.61	0.0489	0.0323
Saturn	-27532-11-05 12:28 J	-8334331.14	-8334330.98	-8334330.82	0.0289	0.0228
Jupiter	-27520-10-13 22:33 J	-8329970.79	-8329970.56	-8329970.34	0.0490	0.0120
Saturn	-27517-05-10 17:31 J	-8329030.99	-8329030.77	-8329030.53	0.0270	0.0054
Uranus	-27511-11-07 01:26 J	-8326659.61	-8326659.44	-8326659.24	0.0137	0.0098
Uranus	-27510-11-11 23:59 J	-8326289.75	-8326289.50	-8326289.24	0.0137	0.0002

Uranus	-27509-11-15 08:09 J	-8325920.36	-8325920.16	-8325919.96	0.0136	0.0088
Mars	-27506-03-22 14:09 J	-8325063.10	-8325062.91	-8325062.72	0.1632	0.0363
Jupiter	-27502-04-09 02:23 J	-8323584.52	-8323584.40	-8323584.26	0.0538	0.0450
Saturn	-27502-11-14 01:55 J	-8323365.63	-8323365.42	-8323365.20	0.0291	0.0141
Jupiter	-27490-04-14 08:09 J	-8319196.36	-8319196.16	-8319195.95	0.0538	0.0205
Saturn	-27488-05-05 15:35 J	-8318444.03	-8318443.85	-8318443.65	0.0270	0.0181
Saturn	-27473-11-06 07:11 J	-8312780.39	-8312780.20	-8312780.00	0.0289	0.0175
Uranus	-27466-05-05 11:16 J	-8310409.12	-8310409.03	-8310408.90	0.0141	0.0127
Uranus	-27465-05-09 00:28 J	-8310039.72	-8310039.48	-8310039.25	0.0142	0.0037
Uranus	-27464-05-13 22:19 J	-8309669.77	-8309669.57	-8309669.35	0.0142	0.0081
Saturn	-27458-05-12 20:09 J	-8307479.87	-8307479.66	-8307479.43	0.0270	0.0100
Neptune	-27453-04-10 18:28 J	-8305684.86	-8305684.73	-8305684.56	0.0089	0.0073
Neptune	-27452-04-13 03:50 J	-8305317.57	-8305317.34	-8305317.10	0.0089	0.0021
Neptune	-27451-04-15 13:26 J	-8304950.20	-8304949.94	-8304949.68	0.0089	0.0013
Neptune	-27450-04-18 03:35 J	-8304582.51	-8304582.35	-8304582.18	0.0089	0.0066
Jupiter	-27449-10-08 20:52 J	-8304042.78	-8304042.63	-8304042.48	0.0489	0.0375
Pluto	-27445-07-04 11:16 J	-8302678.24	-8302678.03	-8302677.77	0.0068	0.0034
Saturn	-27443-11-15 01:55 J	-8301814.60	-8301814.42	-8301814.23	0.0291	0.0197
Jupiter	-27437-10-13 14:52 J	-8299655.11	-8299654.88	-8299654.64	0.0490	0.0072
Saturn	-27429-05-06 13:40 J	-8296893.14	-8296892.93	-8296892.71	0.0270	0.0133
Mars	-27427-03-24 23:02 J	-8296205.67	-8296205.54	-8296205.40	0.1633	0.1181
Uranus	-27427-11-07 15:21 J	-8295978.04	-8295977.86	-8295977.67	0.0138	0.0094
Uranus	-27426-11-12 14:23 J	-8295608.15	-8295607.90	-8295607.64	0.0137	0.0004
Uranus	-27425-11-15 22:19 J	-8295238.73	-8295238.57	-8295238.40	0.0136	0.0105
Jupiter	-27419-04-08 14:09 J	-8293268.98	-8293268.91	-8293268.84	0.0538	0.0508
Saturn	-27414-11-08 09:50 J	-8291229.31	-8291229.09	-8291228.87	0.0289	0.0119
Jupiter	-27407-04-13 15:21 J	-8288881.09	-8288880.86	-8288880.63	0.0537	0.0121
Saturn	-27399-05-13 18:43 J	-8285928.92	-8285928.72	-8285928.50	0.0270	0.0150
Saturn	-27384-11-15 23:59 J	-8280263.60	-8280263.50	-8280263.38	0.0291	0.0260
Uranus	-27382-05-05 23:02 J	-8279727.61	-8279727.54	-8279727.41	0.0141	0.0130

Uranus	-27381-05-09 12:57 J	-8279358.20	-8279357.96	-8279357.71	0.0142	0.0016
Uranus	-27380-05-14 09:35 J	-8278988.31	-8278988.10	-8278987.87	0.0142	0.0074
Neptune	-27371-10-12 00:28 J	-8275550.63	-8275550.48	-8275550.29	0.0088	0.0066
Saturn	-27370-05-08 17:31 J	-8275341.99	-8275341.77	-8275341.54	0.0270	0.0082
Neptune	-27370-10-14 12:14 J	-8275183.25	-8275182.99	-8275182.72	0.0088	0.0017
Neptune	-27369-10-16 03:35 J	-8274815.59	-8274815.35	-8274815.09	0.0088	0.0020
Neptune	-27368-10-18 10:47 J	-8274448.20	-8274448.05	-8274447.87	0.0088	0.0069
Jupiter	-27366-10-09 11:59 J	-8273727.10	-8273727.00	-8273726.89	0.0489	0.0435
Pluto	-27358-01-09 05:02 J	-8271078.43	-8271078.29	-8271078.08	0.0076	0.0058
Mars	-27357-09-20 09:07 J	-8270458.34	-8270458.12	-8270457.90	0.1888	0.0452
Saturn	-27355-11-09 18:43 J	-8269677.95	-8269677.72	-8269677.48	0.0289	0.0056
Jupiter	-27354-10-13 16:19 J	-8269340.06	-8269339.82	-8269339.58	0.0490	0.0018
Uranus	-27343-11-08 04:04 J	-8265296.53	-8265296.33	-8265296.11	0.0138	0.0081
Uranus	-27342-11-13 03:21 J	-8264926.61	-8264926.36	-8264926.10	0.0137	0.0015
Uranus	-27341-11-16 11:02 J	-8264557.20	-8264557.04	-8264556.87	0.0136	0.0104
Saturn	-27340-05-14 16:47 J	-8264377.96	-8264377.80	-8264377.63	0.0270	0.0201
Jupiter	-27324-04-12 11:16 J	-8258566.25	-8258566.03	-8258565.80	0.0537	0.0012
Saturn	-27311-05-10 01:55 J	-8253790.66	-8253790.42	-8253790.19	0.0270	0.0028
Mars	-27301-03-21 04:47 J	-8250187.45	-8250187.30	-8250187.15	0.1630	0.0881
Uranus	-27298-05-06 12:28 J	-8249046.12	-8249045.98	-8249045.81	0.0141	0.0112
Uranus	-27297-05-10 03:07 J	-8248676.61	-8248676.37	-8248676.13	0.0141	0.0022
Uranus	-27296-05-14 22:47 J	-8248306.74	-8248306.55	-8248306.36	0.0142	0.0095
Saturn	-27296-11-11 03:07 J	-8248126.62	-8248126.37	-8248126.11	0.0289	0.0013
Neptune	-27288-04-12 07:11 J	-8245417.40	-8245417.20	-8245416.98	0.0089	0.0052
Neptune	-27287-04-14 22:04 J	-8245049.82	-8245049.58	-8245049.32	0.0089	0.0011
Neptune	-27286-04-17 02:23 J	-8244682.61	-8244682.40	-8244682.15	0.0089	0.0037
Neptune	-27285-04-18 19:40 J	-8244314.77	-8244314.68	-8244314.53	0.0089	0.0079
Saturn	-27282-05-04 22:04 J	-8243203.61	-8243203.58	-8243203.52	0.0272	0.0267
Saturn	-27281-05-15 20:23 J	-8242826.71	-8242826.65	-8242826.57	0.0270	0.0258
Jupiter	-27271-10-13 02:38 J	-8239024.62	-8239024.39	-8239024.16	0.0490	0.0044

Saturn	-27267-11-05 04:33 J	-8237540.37	-8237540.31	-8237540.23	0.0288	0.0275
Jupiter	-27259-10-17 11:02 J	-8234637.14	-8234637.04	-8234636.95	0.0491	0.0451
Uranus	-27259-11-08 17:02 J	-8234615.00	-8234614.79	-8234614.58	0.0138	0.0079
Uranus	-27258-11-13 16:33 J	-8234245.06	-8234244.81	-8234244.55	0.0137	0.0020
Uranus	-27257-11-17 00:14 J	-8233875.60	-8233875.49	-8233875.35	0.0137	0.0120
Saturn	-27252-05-11 08:23 J	-8232239.39	-8232239.15	-8232238.90	0.0270	0.0031
Jupiter	-27241-04-11 22:47 J	-8228250.77	-8228250.55	-8228250.32	0.0538	0.0074
Saturn	-27237-11-12 11:16 J	-8226575.27	-8226575.03	-8226574.78	0.0290	0.0086
Jupiter	-27229-04-16 16:04 J	-8223862.92	-8223862.83	-8223862.72	0.0536	0.0478
Saturn	-27223-05-06 03:07 J	-8221652.51	-8221652.37	-8221652.21	0.0272	0.0210
Mars	-27222-03-23 22:47 J	-8221330.73	-8221330.55	-8221330.38	0.1630	0.0024
Uranus	-27214-05-07 04:04 J	-8218364.47	-8218364.33	-8218364.15	0.0141	0.0110
Uranus	-27213-05-10 19:11 J	-8217994.94	-8217994.70	-8217994.46	0.0141	0.0003
Uranus	-27212-05-15 13:26 J	-8217625.12	-8217624.94	-8217624.72	0.0142	0.0092
Saturn	-27208-11-06 20:38 J	-8215988.80	-8215988.64	-8215988.46	0.0289	0.0198
Neptune	-27206-10-13 19:11 J	-8215282.90	-8215282.70	-8215282.45	0.0088	0.0042
Neptune	-27205-10-15 02:09 J	-8214915.67	-8214915.41	-8214915.14	0.0088	0.0006
Neptune	-27204-10-17 21:21 J	-8214547.83	-8214547.61	-8214547.37	0.0088	0.0044
Neptune	-27203-10-20 02:23 J	-8214180.48	-8214180.40	-8214180.27	0.0088	0.0080
Pluto	-27199-07-06 07:26 J	-8212825.34	-8212825.19	-8212825.01	0.0068	0.0050
Pluto	-27198-07-08 01:11 J	-8212458.60	-8212458.45	-8212458.24	0.0068	0.0052
Saturn	-27193-05-12 11:31 J	-8210688.25	-8210688.02	-8210687.78	0.0270	0.0095
Jupiter	-27188-10-12 03:50 J	-8208709.58	-8208709.34	-8208709.10	0.0490	0.0119
Saturn	-27178-11-14 23:16 J	-8205023.72	-8205023.53	-8205023.31	0.0290	0.0170
Jupiter	-27176-10-16 13:55 J	-8204322.06	-8204321.92	-8204321.77	0.0490	0.0377
Uranus	-27175-11-09 07:40 J	-8203933.39	-8203933.18	-8203932.94	0.0138	0.0064
Uranus	-27174-11-14 07:11 J	-8203563.45	-8203563.20	-8203562.95	0.0137	0.0031
Uranus	-27173-11-17 14:23 J	-8203194.00	-8203193.90	-8203193.76	0.0137	0.0121
Saturn	-27164-05-07 14:38 J	-8200101.09	-8200100.89	-8200100.69	0.0272	0.0145
Jupiter	-27158-04-11 14:38 J	-8197936.10	-8197935.89	-8197935.67	0.0537	0.0189

Saturn	-27149-11-08 15:35 J	-8194437.07	-8194436.85	-8194436.62	0.0289	0.0113
Jupiter	-27146-04-16 17:31 J	-8193547.93	-8193547.77	-8193547.59	0.0537	0.0344
Mars	-27143-03-25 20:23 J	-8192473.74	-8192473.65	-8192473.55	0.1631	0.1388
Saturn	-27134-05-14 17:31 J	-8189136.96	-8189136.77	-8189136.57	0.0270	0.0161
Uranus	-27130-05-07 18:57 J	-8187682.90	-8187682.71	-8187682.51	0.0141	0.0092
Uranus	-27129-05-11 10:47 J	-8187313.29	-8187313.05	-8187312.81	0.0141	0.0002
Uranus	-27128-05-16 04:19 J	-8186943.45	-8186943.32	-8186943.15	0.0142	0.0115
Neptune	-27124-04-11 15:50 J	-8185516.92	-8185516.84	-8185516.75	0.0089	0.0084
Neptune	-27123-04-13 20:09 J	-8185149.89	-8185149.66	-8185149.41	0.0089	0.0031
Neptune	-27122-04-16 14:09 J	-8184782.17	-8184781.91	-8184781.66	0.0089	0.0003
Neptune	-27121-04-17 18:28 J	-8184414.92	-8184414.73	-8184414.54	0.0089	0.0056
Saturn	-27119-11-16 17:31 J	-8183471.88	-8183471.77	-8183471.65	0.0290	0.0256
Pluto	-27112-01-09 23:31 J	-8181225.72	-8181225.52	-8181225.29	0.0076	0.0040
Saturn	-27105-05-09 02:09 J	-8178549.64	-8178549.41	-8178549.18	0.0272	0.0079
Jupiter	-27105-10-11 04:47 J	-8178394.51	-8178394.30	-8178394.09	0.0490	0.0207
Jupiter	-27093-10-15 18:14 J	-8174006.93	-8174006.74	-8174006.54	0.0490	0.0288
Uranus	-27091-11-09 22:19 J	-8173251.80	-8173251.57	-8173251.34	0.0138	0.0061
Saturn	-27090-11-11 06:43 J	-8172885.47	-8172885.22	-8172884.97	0.0289	0.0026
Uranus	-27090-11-14 21:35 J	-8172881.85	-8172881.60	-8172881.35	0.0137	0.0038
Jupiter	-27075-04-10 15:35 J	-8167621.02	-8167620.85	-8167620.67	0.0538	0.0331
Saturn	-27075-05-16 05:02 J	-8167585.39	-8167585.29	-8167585.15	0.0270	0.0231
Jupiter	-27063-04-15 13:40 J	-8163233.14	-8163232.93	-8163232.71	0.0537	0.0230
Uranus	-27046-05-08 08:52 J	-8157001.31	-8157001.13	-8157000.92	0.0141	0.0091
Saturn	-27046-05-11 09:35 J	-8156998.35	-8156998.10	-8156997.85	0.0271	0.0010
Uranus	-27045-05-12 01:26 J	-8156631.68	-8156631.44	-8156631.20	0.0141	0.0021
Uranus	-27044-05-16 18:28 J	-8156261.89	-8156261.73	-8156261.57	0.0142	0.0109
Neptune	-27042-10-12 16:33 J	-8155382.95	-8155382.81	-8155382.66	0.0088	0.0072
Neptune	-27041-10-14 11:59 J	-8155015.24	-8155015.00	-8155014.74	0.0088	0.0026
Neptune	-27040-10-16 17:45 J	-8154648.02	-8154647.76	-8154647.50	0.0088	0.0012
Neptune	-27039-10-19 11:45 J	-8154280.19	-8154280.01	-8154279.80	0.0088	0.0060

Saturn	-27031-11-12 17:45 J	-8151334.00	-8151333.76	-8151333.50	0.0289	0.0062
Jupiter	-27022-10-11 11:59 J	-8148079.20	-8148079.00	-8148078.80	0.0489	0.0277
Mars	-27017-03-22 11:31 J	-8146455.21	-8146455.02	-8146454.84	0.1629	0.0521
Saturn	-27017-05-05 15:07 J	-8146410.99	-8146410.87	-8146410.75	0.0272	0.0231
Jupiter	-27010-10-15 15:21 J	-8143692.07	-8143691.86	-8143691.65	0.0490	0.0206
Uranus	-27007-11-10 13:55 J	-8142570.16	-8142569.92	-8142569.68	0.0138	0.0045
Uranus	-27006-11-15 12:28 J	-8142200.22	-8142199.98	-8142199.73	0.0137	0.0049
Saturn	-27002-11-06 23:45 J	-8140747.63	-8140747.51	-8140747.37	0.0288	0.0238

27TH MILLENNIUM BCE

This is a list of transits of Moon in the 27th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-26992-04-09 12:57 J	-8137306.09	-8137305.96	-8137305.81	0.0538	0.0433		
Saturn	-26987-05-12 14:23 J	-8135447.14	-8135446.90	-8135446.65	0.0271	0.0057		
Jupiter	-26980-04-14 15:50 J	-8132918.06	-8132917.84	-8132917.63	0.0537	0.0117		
Saturn	-26972-11-14 07:26 J	-8129782.40	-8129782.19	-8129781.97	0.0290	0.0145		
Uranus	-26962-05-08 21:07 J	-8126319.82	-8126319.62	-8126319.39	0.0141	0.0076		
Uranus	-26961-05-12 14:38 J	-8125950.12	-8125949.89	-8125949.64	0.0141	0.0016		
Uranus	-26960-05-17 06:28 J	-8125580.32	-8125580.23	-8125580.12	0.0142	0.0130		
Neptune	-26959-04-13 07:40 J	-8125249.35	-8125249.18	-8125248.98	0.0089	0.0062		
Neptune	-26958-04-15 12:28 J	-8124882.22	-8124881.98	-8124881.74	0.0089	0.0022		
Saturn	-26958-05-08 04:19 J	-8124859.50	-8124859.32	-8124859.13	0.0272	0.0165		
Neptune	-26957-04-17 03:21 J	-8124514.59	-8124514.36	-8124514.09	0.0089	0.0027		

Neptune -26956-04-19 11:16 J -8124147.17 -8124147.03 -8124146.85 0.0089 0.0067
 Pluto -26953-07-07 12:57 J -8122972.10 -8122971.96 -8122971.77 0.0068 0.0052
 Pluto -26952-07-08 22:04 J -8122605.74 -8122605.58 -8122605.38 0.0068 0.0049
 Saturn -26943-11-08 14:38 J -8119196.10 -8119195.89 -8119195.68 0.0289 0.0158
 Jupiter -26939-10-10 09:35 J -8117764.26 -8117764.10 -8117763.94 0.0489 0.0353
 Mars -26938-03-25 14:52 J -8117598.06 -8117597.88 -8117597.71 0.1629 0.0482
 Saturn -26928-05-13 21:21 J -8113895.82 -8113895.61 -8113895.39 0.0271 0.0123
 Jupiter -26927-10-15 00:57 J -8113376.69 -8113376.46 -8113376.23 0.0490 0.0126
 Uranus -26924-11-06 14:52 J -8112257.93 -8112257.88 -8112257.78 0.0138 0.0133
 Uranus -26923-11-11 02:52 J -8111888.61 -8111888.38 -8111888.13 0.0138 0.0044
 Uranus -26922-11-16 01:11 J -8111518.68 -8111518.45 -8111518.20 0.0137 0.0055
 Saturn -26913-11-15 21:35 J -8108230.74 -8108230.60 -8108230.44 0.0290 0.0221
 Saturn -26899-05-09 13:40 J -8103308.16 -8103307.93 -8103307.70 0.0271 0.0099
 Jupiter -26897-04-13 12:28 J -8102603.21 -8102602.98 -8102602.74 0.0538 0.0032
 Saturn -26884-11-09 22:33 J -8097644.81 -8097644.56 -8097644.31 0.0289 0.0082
 Uranus -26878-05-09 08:09 J -8095638.36 -8095638.16 -8095637.93 0.0141 0.0077
 Uranus -26877-05-13 02:23 J -8095268.64 -8095268.40 -8095268.16 0.0141 0.0034
 Neptune -26877-10-13 10:04 J -8095115.28 -8095115.08 -8095114.85 0.0088 0.0049
 Uranus -26876-05-17 16:47 J -8094898.92 -8094898.80 -8094898.65 0.0142 0.0122
 Neptune -26876-10-16 03:50 J -8094747.59 -8094747.34 -8094747.06 0.0088 0.0014
 Neptune -26875-10-18 13:11 J -8094380.17 -8094379.95 -8094379.71 0.0088 0.0037
 Neptune -26874-10-21 01:40 J -8094012.57 -8094012.43 -8094012.26 0.0088 0.0072
 Saturn -26869-05-15 07:26 J -8092344.34 -8092344.19 -8092344.01 0.0270 0.0189
 Pluto -26866-01-12 05:16 J -8091372.49 -8091372.28 -8091372.04 0.0076 0.0037
 Jupiter -26856-10-09 21:50 J -8087448.71 -8087448.59 -8087448.47 0.0489 0.0413
 Jupiter -26844-10-14 02:23 J -8083061.64 -8083061.40 -8083061.16 0.0490 0.0068
 Saturn -26840-05-10 15:07 J -8081757.12 -8081756.87 -8081756.62 0.0271 0.0037
 Uranus -26840-11-07 04:19 J -8081576.35 -8081576.32 -8081576.26 0.0138 0.0136
 Uranus -26839-11-11 16:33 J -8081207.05 -8081206.81 -8081206.56 0.0138 0.0029
 Uranus -26838-11-16 14:09 J -8080837.14 -8080836.91 -8080836.67 0.0137 0.0064

Saturn	-26825-11-11 01:40 J	-8076093.68	-8076093.43	-8076093.18	0.0289	0.0013
Jupiter	-26814-04-13 13:11 J	-8072288.16	-8072287.95	-8072287.73	0.0538	0.0119
Saturn	-26810-05-17 15:07 J	-8070792.95	-8070792.87	-8070792.77	0.0270	0.0250
Jupiter	-26802-04-18 23:02 J	-8067899.61	-8067899.54	-8067899.46	0.0537	0.0502
Neptune	-26794-04-14 21:35 J	-8064981.83	-8064981.60	-8064981.37	0.0089	0.0042
Uranus	-26794-05-09 20:23 J	-8064956.88	-8064956.65	-8064956.41	0.0141	0.0063
Neptune	-26793-04-16 06:57 J	-8064614.46	-8064614.21	-8064613.97	0.0089	0.0006
Uranus	-26793-05-13 15:21 J	-8064587.09	-8064586.86	-8064586.62	0.0141	0.0028
Neptune	-26792-04-18 16:04 J	-8064247.04	-8064246.83	-8064246.59	0.0089	0.0046
Neptune	-26791-04-21 05:45 J	-8063879.33	-8063879.26	-8063879.13	0.0089	0.0082
Saturn	-26781-05-11 15:21 J	-8060206.10	-8060205.86	-8060205.62	0.0271	0.0021
Jupiter	-26773-10-08 23:45 J	-8057133.58	-8057133.51	-8057133.42	0.0489	0.0460
Saturn	-26766-11-13 06:28 J	-8054542.46	-8054542.23	-8054541.99	0.0290	0.0049
Jupiter	-26761-10-13 15:50 J	-8052746.07	-8052745.84	-8052745.61	0.0489	0.0010
Uranus	-26756-11-07 13:11 J	-8050895.07	-8050894.95	-8050894.80	0.0139	0.0119
Uranus	-26755-11-12 02:38 J	-8050525.63	-8050525.39	-8050525.14	0.0138	0.0032
Uranus	-26754-11-16 23:45 J	-8050155.72	-8050155.51	-8050155.27	0.0137	0.0068
Saturn	-26752-05-06 18:57 J	-8049618.83	-8049618.71	-8049618.58	0.0272	0.0228
Jupiter	-26749-10-17 22:19 J	-8048358.69	-8048358.57	-8048358.45	0.0490	0.0425
Saturn	-26737-11-06 01:26 J	-8043956.54	-8043956.44	-8043956.33	0.0288	0.0261
Mars	-26733-03-23 09:35 J	-8042723.29	-8042723.10	-8042722.91	0.1628	0.0249
Jupiter	-26731-04-12 21:35 J	-8041972.81	-8041972.60	-8041972.39	0.0538	0.0221
Saturn	-26722-05-13 18:14 J	-8038654.97	-8038654.74	-8038654.51	0.0271	0.0074
Jupiter	-26719-04-17 14:23 J	-8037585.06	-8037584.90	-8037584.74	0.0537	0.0383
Neptune	-26713-10-12 18:57 J	-8035214.82	-8035214.71	-8035214.58	0.0088	0.0078
Neptune	-26712-10-15 05:45 J	-8034847.49	-8034847.26	-8034847.02	0.0088	0.0033
Neptune	-26711-10-17 17:59 J	-8034480.02	-8034479.75	-8034479.48	0.0088	0.0007
Uranus	-26710-05-10 10:04 J	-8034275.31	-8034275.08	-8034274.84	0.0141	0.0060
Mars	-26710-09-22 23:59 J	-8034139.68	-8034139.50	-8034139.31	0.1891	0.0448
Neptune	-26710-10-20 09:07 J	-8034112.30	-8034112.12	-8034111.90	0.0088	0.0053

Uranus	-26709-05-14 05:16 J	-8033905.50	-8033905.28	-8033905.04	0.0141	0.0049
Uranus	-26708-05-18 17:45 J	-8033535.80	-8033535.76	-8033535.67	0.0142	0.0137
Pluto	-26707-07-09 11:16 J	-8033119.18	-8033119.03	-8033118.83	0.0068	0.0051
Saturn	-26707-11-14 11:45 J	-8032991.24	-8032991.01	-8032990.78	0.0290	0.0105
Pluto	-26706-07-11 03:07 J	-8032752.52	-8032752.37	-8032752.16	0.0068	0.0048
Saturn	-26693-05-07 18:43 J	-8028067.90	-8028067.72	-8028067.52	0.0271	0.0176
Jupiter	-26678-10-13 23:16 J	-8022430.78	-8022430.53	-8022430.28	0.0489	0.0046
Saturn	-26678-11-07 19:26 J	-8022405.86	-8022405.69	-8022405.52	0.0288	0.0212
Uranus	-26672-11-08 01:11 J	-8020213.54	-8020213.45	-8020213.32	0.0139	0.0125
Uranus	-26671-11-12 15:21 J	-8019844.10	-8019843.86	-8019843.61	0.0138	0.0017
Uranus	-26670-11-17 11:31 J	-8019474.23	-8019474.02	-8019473.78	0.0137	0.0075
Jupiter	-26666-10-18 10:33 J	-8018043.20	-8018043.06	-8018042.92	0.0490	0.0381
Saturn	-26663-05-14 21:21 J	-8017103.82	-8017103.61	-8017103.40	0.0271	0.0124
Mars	-26654-03-26 17:02 J	-8013865.97	-8013865.79	-8013865.62	0.1628	0.0808
Jupiter	-26648-04-11 18:57 J	-8011657.90	-8011657.71	-8011657.52	0.0538	0.0309
Saturn	-26648-11-15 10:47 J	-8011440.27	-8011440.05	-8011439.84	0.0290	0.0154
Jupiter	-26636-04-17 05:16 J	-8007269.45	-8007269.28	-8007269.10	0.0538	0.0334
Saturn	-26634-05-09 13:55 J	-8006517.14	-8006516.92	-8006516.70	0.0271	0.0125
Neptune	-26630-04-14 01:55 J	-8005081.55	-8005081.42	-8005081.24	0.0089	0.0070
Neptune	-26629-04-15 10:47 J	-8004714.29	-8004714.05	-8004713.80	0.0089	0.0031
Neptune	-26628-04-18 01:40 J	-8004346.66	-8004346.43	-8004346.18	0.0089	0.0018
Neptune	-26627-04-20 06:28 J	-8003979.41	-8003979.23	-8003979.01	0.0089	0.0057
Uranus	-26626-05-11 01:11 J	-8003593.70	-8003593.45	-8003593.21	0.0140	0.0044
Uranus	-26625-05-14 21:21 J	-8003223.83	-8003223.61	-8003223.37	0.0141	0.0047
Pluto	-26620-01-13 07:40 J	-8001519.39	-8001519.18	-8001518.94	0.0076	0.0041
Saturn	-26619-11-08 17:31 J	-8000854.96	-8000854.77	-8000854.57	0.0288	0.0169
Saturn	-26604-05-15 20:38 J	-7995552.82	-7995552.64	-7995552.44	0.0271	0.0171
Jupiter	-26595-10-13 09:50 J	-7992115.32	-7992115.09	-7992114.87	0.0489	0.0095
Saturn	-26589-11-16 03:35 J	-7989889.52	-7989889.35	-7989889.15	0.0290	0.0199
Uranus	-26588-11-08 11:02 J	-7989532.19	-7989532.04	-7989531.85	0.0139	0.0106

Uranus	-26587-11-13 02:52 J	-7989162.63	-7989162.38	-7989162.14	0.0138	0.0019
Uranus	-26586-11-17 22:19 J	-7988792.77	-7988792.57	-7988792.34	0.0137	0.0082
Jupiter	-26583-10-18 01:26 J	-7987727.62	-7987727.44	-7987727.25	0.0490	0.0322
Saturn	-26575-05-10 12:14 J	-7984966.21	-7984965.99	-7984965.76	0.0271	0.0076
Jupiter	-26565-04-11 12:28 J	-7981342.14	-7981341.98	-7981341.81	0.0538	0.0361
Saturn	-26560-11-09 19:26 J	-7979303.90	-7979303.69	-7979303.46	0.0288	0.0124
Jupiter	-26553-04-16 08:23 J	-7976954.36	-7976954.15	-7976953.95	0.0537	0.0261
Neptune	-26548-10-14 10:33 J	-7974947.27	-7974947.06	-7974946.85	0.0088	0.0054
Neptune	-26547-10-17 02:38 J	-7974579.63	-7974579.39	-7974579.13	0.0088	0.0020
Neptune	-26546-10-19 09:21 J	-7974212.34	-7974212.11	-7974211.85	0.0088	0.0032
Saturn	-26545-05-16 14:38 J	-7974002.03	-7974001.89	-7974001.74	0.0271	0.0221
Neptune	-26545-10-21 04:19 J	-7973844.46	-7973844.32	-7973844.12	0.0088	0.0067
Uranus	-26543-05-07 06:14 J	-7973281.27	-7973281.24	-7973281.17	0.0140	0.0137
Uranus	-26542-05-11 14:52 J	-7972912.12	-7972911.88	-7972911.63	0.0140	0.0041
Uranus	-26541-05-15 11:31 J	-7972542.22	-7972542.02	-7972541.79	0.0141	0.0068
Saturn	-26530-11-18 00:14 J	-7968338.61	-7968338.49	-7968338.35	0.0290	0.0247
Mars	-26528-03-23 03:21 J	-7967847.46	-7967847.36	-7967847.25	0.1627	0.1313
Saturn	-26516-05-11 16:33 J	-7963415.04	-7963414.81	-7963414.58	0.0271	0.0023
Jupiter	-26512-10-13 00:14 J	-7961799.72	-7961799.49	-7961799.26	0.0489	0.0153
Uranus	-26504-11-09 00:28 J	-7958850.62	-7958850.48	-7958850.30	0.0138	0.0111
Uranus	-26503-11-13 16:47 J	-7958481.05	-7958480.80	-7958480.55	0.0138	0.0002
Uranus	-26502-11-18 11:16 J	-7958111.22	-7958111.03	-7958110.81	0.0137	0.0087
Saturn	-26501-11-10 20:09 J	-7957752.91	-7957752.66	-7957752.42	0.0288	0.0073
Jupiter	-26500-10-17 04:33 J	-7957412.50	-7957412.31	-7957412.10	0.0490	0.0269
Saturn	-26487-05-06 14:09 J	-7952827.91	-7952827.91	-7952827.91	0.0273	0.0273
Jupiter	-26482-04-11 11:45 J	-7951027.13	-7951027.01	-7951026.88	0.0537	0.0450
Jupiter	-26470-04-16 11:16 J	-7946639.23	-7946639.03	-7946638.82	0.0537	0.0176
Neptune	-26465-04-14 22:19 J	-7944813.76	-7944813.57	-7944813.35	0.0089	0.0050
Neptune	-26464-04-17 02:52 J	-7944446.63	-7944446.38	-7944446.12	0.0089	0.0013
Neptune	-26463-04-19 19:55 J	-7944078.88	-7944078.67	-7944078.42	0.0089	0.0039

Neptune -26462-04-21 23:59 J -7943711.62 -7943711.50 -7943711.34 0.0089 0.0075
 Pluto -26461-07-10 12:14 J -7943266.18 -7943265.99 -7943265.75 0.0068 0.0039
 Pluto -26460-07-12 11:02 J -7942899.16 -7942899.04 -7942898.88 0.0068 0.0058
 Uranus -26459-05-07 19:40 J -7942599.77 -7942599.68 -7942599.57 0.0140 0.0127
 Uranus -26458-05-12 03:50 J -7942230.58 -7942230.34 -7942230.08 0.0140 0.0028
 Saturn -26457-05-12 19:40 J -7941863.92 -7941863.68 -7941863.43 0.0271 0.0032
 Uranus -26457-05-16 01:26 J -7941860.65 -7941860.44 -7941860.21 0.0141 0.0064
 Mars -26449-03-24 21:21 J -7938990.79 -7938990.61 -7938990.44 0.1627 0.0140
 Saturn -26442-11-12 18:28 J -7936201.99 -7936201.73 -7936201.47 0.0288 0.0021
 Jupiter -26429-10-12 01:55 J -7931484.63 -7931484.42 -7931484.21 0.0490 0.0211
 Saturn -26428-05-07 12:43 J -7931277.10 -7931276.97 -7931276.82 0.0273 0.0221
 Mars -26426-09-22 02:23 J -7930409.57 -7930409.40 -7930409.22 0.1892 0.1158
 Uranus -26420-11-09 10:33 J -7928169.26 -7928169.06 -7928168.85 0.0138 0.0091
 Uranus -26419-11-14 04:04 J -7927799.58 -7927799.33 -7927799.08 0.0138 0.0006
 Uranus -26418-11-18 22:04 J -7927429.77 -7927429.58 -7927429.38 0.0137 0.0096
 Jupiter -26417-10-16 20:23 J -7927096.86 -7927096.65 -7927096.44 0.0490 0.0212
 Saturn -26398-05-14 19:26 J -7920312.92 -7920312.69 -7920312.45 0.0271 0.0089
 Jupiter -26387-04-15 22:47 J -7916323.78 -7916323.55 -7916323.32 0.0538 0.0110
 Neptune -26384-10-13 20:52 J -7915046.70 -7915046.63 -7915046.52 0.0088 0.0082
 Neptune -26383-10-16 03:21 J -7914679.58 -7914679.36 -7914679.11 0.0088 0.0038
 Saturn -26383-11-13 21:35 J -7914650.85 -7914650.60 -7914650.35 0.0288 0.0042
 Neptune -26382-10-18 23:31 J -7914311.78 -7914311.52 -7914311.26 0.0088 0.0004
 Neptune -26381-10-20 04:47 J -7913944.50 -7913944.30 -7913944.07 0.0088 0.0048
 Uranus -26375-05-08 06:57 J -7911918.32 -7911918.21 -7911918.09 0.0140 0.0123
 Pluto -26374-01-15 09:35 J -7911666.27 -7911666.10 -7911665.92 0.0076 0.0057
 Uranus -26374-05-12 14:38 J -7911549.14 -7911548.89 -7911548.64 0.0140 0.0027
 Uranus -26373-05-16 12:28 J -7911179.18 -7911178.98 -7911178.78 0.0141 0.0080
 Mars -26370-03-27 17:45 J -7910133.89 -7910133.76 -7910133.63 0.1628 0.1113
 Saturn -26369-05-08 17:59 J -7909725.93 -7909725.75 -7909725.56 0.0273 0.0165
 Saturn -26354-11-08 11:59 J -7904064.11 -7904064.00 -7904063.85 0.0287 0.0243

Jupiter	-26346-10-12 16:19 J	-7901169.01	-7901168.82	-7901168.62	0.0489	0.0278
Saturn	-26339-05-15 20:52 J	-7898761.82	-7898761.63	-7898761.42	0.0271	0.0152
Uranus	-26336-11-09 22:04 J	-7897487.76	-7897487.58	-7897487.38	0.0139	0.0098
Uranus	-26335-11-14 16:47 J	-7897118.05	-7897117.80	-7897117.55	0.0138	0.0011
Jupiter	-26334-10-16 18:57 J	-7896781.94	-7896781.71	-7896781.47	0.0490	0.0141
Uranus	-26334-11-19 09:07 J	-7896748.29	-7896748.12	-7896747.92	0.0137	0.0099
Saturn	-26324-11-15 09:07 J	-7893099.33	-7893099.12	-7893098.89	0.0289	0.0113
Saturn	-26310-05-11 03:21 J	-7888174.58	-7888174.36	-7888174.14	0.0273	0.0103
Jupiter	-26304-04-14 17:59 J	-7886008.98	-7886008.75	-7886008.53	0.0537	0.0006
Neptune	-26301-04-13 23:45 J	-7884913.63	-7884913.51	-7884913.35	0.0089	0.0074
Neptune	-26300-04-16 17:31 J	-7884545.99	-7884545.77	-7884545.52	0.0089	0.0037
Neptune	-26299-04-18 22:04 J	-7884178.83	-7884178.58	-7884178.33	0.0089	0.0013
Neptune	-26298-04-21 13:11 J	-7883811.14	-7883810.95	-7883810.71	0.0089	0.0051
Saturn	-26295-11-09 21:50 J	-7882512.79	-7882512.59	-7882512.37	0.0287	0.0168
Uranus	-26291-05-08 16:33 J	-7881236.93	-7881236.81	-7881236.65	0.0140	0.0116
Uranus	-26290-05-13 00:28 J	-7880867.73	-7880867.48	-7880867.23	0.0140	0.0018
Uranus	-26289-05-16 22:19 J	-7880497.76	-7880497.57	-7880497.34	0.0141	0.0074
Saturn	-26280-05-17 04:47 J	-7877210.43	-7877210.30	-7877210.15	0.0271	0.0215
Saturn	-26265-11-17 03:50 J	-7871547.51	-7871547.34	-7871547.15	0.0289	0.0192
Jupiter	-26263-10-11 13:11 J	-7870854.11	-7870853.95	-7870853.78	0.0489	0.0356
Uranus	-26252-11-10 05:16 J	-7866806.49	-7866806.28	-7866806.06	0.0139	0.0080
Saturn	-26251-05-12 10:47 J	-7866623.29	-7866623.05	-7866622.80	0.0273	0.0036
Jupiter	-26251-10-16 01:55 J	-7866466.65	-7866466.42	-7866466.19	0.0490	0.0061
Uranus	-26251-11-15 01:26 J	-7866436.69	-7866436.44	-7866436.19	0.0138	0.0004
Uranus	-26250-11-19 17:02 J	-7866066.94	-7866066.79	-7866066.61	0.0137	0.0107
Mars	-26244-03-24 09:07 J	-7864115.28	-7864115.12	-7864114.96	0.1626	0.0952
Saturn	-26236-11-11 08:09 J	-7860961.40	-7860961.16	-7860960.91	0.0288	0.0090
Saturn	-26222-05-07 11:31 J	-7856036.04	-7856036.02	-7856035.98	0.0274	0.0271
Jupiter	-26221-04-13 20:38 J	-7855693.86	-7855693.64	-7855693.41	0.0538	0.0122
Neptune	-26219-10-15 17:31 J	-7854778.96	-7854778.77	-7854778.56	0.0088	0.0057

Neptune -26218-10-17 23:31 J -7854411.77 -7854411.52 -7854411.27 0.0088 0.0023
 Neptune -26217-10-19 17:02 J -7854044.03 -7854043.79 -7854043.52 0.0088 0.0029
 Neptune -26216-10-22 01:40 J -7853676.58 -7853676.43 -7853676.23 0.0088 0.0064
 Pluto -26215-07-12 19:55 J -7853412.86 -7853412.67 -7853412.42 0.0068 0.0032
 Pluto -26214-07-14 08:52 J -7853046.19 -7853046.13 -7853045.99 0.0068 0.0064
 Jupiter -26209-04-18 16:19 J -7851305.92 -7851305.82 -7851305.71 0.0537 0.0472
 Uranus -26207-05-09 03:50 J -7850555.48 -7850555.34 -7850555.19 0.0140 0.0113
 Uranus -26206-05-13 10:47 J -7850186.29 -7850186.05 -7850185.80 0.0140 0.0016
 Saturn -26206-11-19 22:33 J -7849995.63 -7849995.56 -7849995.49 0.0289 0.0278
 Uranus -26205-05-17 08:38 J -7849816.32 -7849816.14 -7849815.94 0.0141 0.0089
 Saturn -26192-05-13 15:35 J -7845072.09 -7845071.85 -7845071.60 0.0273 0.0037
 Jupiter -26180-10-10 18:28 J -7840538.81 -7840538.73 -7840538.65 0.0489 0.0455
 Saturn -26177-11-13 00:43 J -7839409.71 -7839409.47 -7839409.22 0.0288 0.0002
 Jupiter -26168-10-15 04:47 J -7836151.55 -7836151.30 -7836151.05 0.0490 0.0019
 Uranus -26168-11-10 13:55 J -7836125.12 -7836124.92 -7836124.71 0.0139 0.0090
 Uranus -26167-11-15 11:16 J -7835755.28 -7835755.03 -7835754.78 0.0138 0.0019
 Uranus -26166-11-20 01:26 J -7835385.60 -7835385.44 -7835385.26 0.0138 0.0105
 Mars -26165-03-26 12:43 J -7835258.14 -7835257.97 -7835257.80 0.1627 0.0609
 Saturn -26163-05-09 01:55 J -7834484.58 -7834484.42 -7834484.26 0.0274 0.0197
 Jupiter -26156-10-19 11:02 J -7831764.11 -7831764.04 -7831763.96 0.0490 0.0462
 Jupiter -26138-04-13 15:50 J -7825379.05 -7825378.84 -7825378.62 0.0538 0.0219
 Neptune -26136-04-15 20:23 J -7824645.82 -7824645.65 -7824645.43 0.0089 0.0056
 Neptune -26135-04-18 11:45 J -7824278.26 -7824278.01 -7824277.75 0.0089 0.0017
 Neptune -26134-04-20 19:40 J -7823910.90 -7823910.68 -7823910.44 0.0089 0.0034
 Neptune -26133-04-22 05:45 J -7823543.39 -7823543.26 -7823543.08 0.0089 0.0072
 Saturn -26133-05-14 22:47 J -7823520.76 -7823520.55 -7823520.32 0.0272 0.0111
 Pluto -26129-01-15 20:38 J -7822179.69 -7822179.64 -7822179.60 0.0077 0.0075
 Pluto -26128-01-16 16:33 J -7821812.89 -7821812.81 -7821812.71 0.0076 0.0071
 Jupiter -26126-04-18 21:21 J -7820990.77 -7820990.61 -7820990.44 0.0537 0.0359
 Uranus -26123-05-09 15:50 J -7819874.00 -7819873.84 -7819873.66 0.0140 0.0102

Uranus	-26122-05-13 23:02 J	-7819504.79	-7819504.54	-7819504.29	0.0140	0.0006
Uranus	-26121-05-17 21:07 J	-7819134.82	-7819134.62	-7819134.42	0.0141	0.0085
Saturn	-26118-11-15 20:23 J	-7817857.87	-7817857.65	-7817857.42	0.0288	0.0087
Saturn	-26104-05-10 15:07 J	-7812933.08	-7812932.87	-7812932.65	0.0273	0.0121
Saturn	-26089-11-08 23:45 J	-7807271.68	-7807271.51	-7807271.32	0.0287	0.0207
Jupiter	-26085-10-14 03:35 J	-7805836.57	-7805836.35	-7805836.12	0.0489	0.0106
Uranus	-26084-11-10 20:52 J	-7805443.85	-7805443.63	-7805443.39	0.0139	0.0073
Uranus	-26083-11-15 19:40 J	-7805073.93	-7805073.68	-7805073.43	0.0138	0.0011
Uranus	-26082-11-20 08:52 J	-7804704.25	-7804704.13	-7804703.96	0.0138	0.0115
Saturn	-26074-05-17 11:16 J	-7801969.19	-7801969.03	-7801968.84	0.0272	0.0184
Jupiter	-26073-10-18 17:02 J	-7801448.94	-7801448.79	-7801448.63	0.0490	0.0371
Mars	-26063-09-24 07:55 J	-7797821.38	-7797821.17	-7797820.97	0.1892	0.0893
Saturn	-26059-11-17 15:21 J	-7796306.05	-7796305.86	-7796305.66	0.0288	0.0174
Jupiter	-26055-04-12 15:07 J	-7795064.03	-7795063.87	-7795063.70	0.0538	0.0360
Neptune	-26055-10-14 19:55 J	-7794878.75	-7794878.67	-7794878.59	0.0088	0.0083
Neptune	-26054-10-17 13:11 J	-7794511.18	-7794510.95	-7794510.70	0.0088	0.0040
Neptune	-26053-10-18 23:02 J	-7794143.79	-7794143.54	-7794143.28	0.0088	0.0003
Neptune	-26052-10-21 11:31 J	-7793776.23	-7793776.02	-7793775.77	0.0088	0.0046
Saturn	-26045-05-11 22:33 J	-7791381.80	-7791381.56	-7791381.31	0.0273	0.0051
Jupiter	-26043-04-17 11:16 J	-7790676.25	-7790676.03	-7790675.81	0.0537	0.0209
Mars	-26039-03-23 08:52 J	-7789240.18	-7789240.13	-7789240.07	0.1626	0.1531
Uranus	-26039-05-10 04:04 J	-7789192.49	-7789192.33	-7789192.14	0.0140	0.0100
Uranus	-26038-05-14 11:31 J	-7788823.26	-7788823.02	-7788822.77	0.0140	0.0003
Uranus	-26037-05-18 08:52 J	-7788453.28	-7788453.13	-7788452.94	0.0141	0.0102
Saturn	-26030-11-11 11:02 J	-7785720.25	-7785720.04	-7785719.80	0.0287	0.0127
Saturn	-26015-05-19 00:14 J	-7780417.57	-7780417.49	-7780417.41	0.0271	0.0255
Jupiter	-26002-10-14 11:31 J	-7775521.24	-7775521.02	-7775520.79	0.0489	0.0188

26TH MILLENNIUM BCE

This is a list of transits of Moon in the 26th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-26000-11-11 06:57 J	-7774762.41	-7774762.21	-7774761.98	0.0139	0.0082		
Saturn	-26000-11-19 03:50 J	-7774754.45	-7774754.34	-7774754.21	0.0289	0.0252		
Uranus	-25999-11-16 06:28 J	-7774392.47	-7774392.23	-7774391.98	0.0138	0.0028		
Uranus	-25998-11-20 18:14 J	-7774022.88	-7774022.74	-7774022.57	0.0138	0.0112		
Jupiter	-25990-10-18 16:04 J	-7771134.01	-7771133.83	-7771133.64	0.0490	0.0304		
Saturn	-25986-05-14 03:07 J	-7769830.62	-7769830.37	-7769830.13	0.0272	0.0020		
Jupiter	-25972-04-11 10:33 J	-7764749.17	-7764749.06	-7764748.95	0.0538	0.0471		
Neptune	-25972-04-15 10:04 J	-7764745.20	-7764745.08	-7764744.93	0.0089	0.0076		
Neptune	-25971-04-17 19:40 J	-7764377.89	-7764377.68	-7764377.46	0.0089	0.0040		
Saturn	-25971-11-13 00:57 J	-7764168.69	-7764168.46	-7764168.22	0.0288	0.0051		
Neptune	-25970-04-20 05:31 J	-7764010.52	-7764010.27	-7764010.00	0.0089	0.0012		
Neptune	-25969-04-21 19:11 J	-7763642.89	-7763642.70	-7763642.48	0.0089	0.0048		
Pluto	-25969-07-14 04:47 J	-7763559.54	-7763559.30	-7763559.03	0.0068	0.0017		
Mars	-25960-03-25 06:57 J	-7760383.39	-7760383.21	-7760383.04	0.1626	0.0644		
Jupiter	-25960-04-16 15:50 J	-7760361.06	-7760360.84	-7760360.63	0.0538	0.0113		
Saturn	-25957-05-08 05:45 J	-7759243.37	-7759243.26	-7759243.14	0.0274	0.0238		
Uranus	-25955-05-10 14:52 J	-7758511.06	-7758510.88	-7758510.66	0.0140	0.0089		
Uranus	-25954-05-14 23:02 J	-7758141.79	-7758141.54	-7758141.29	0.0140	0.0006		
Uranus	-25953-05-18 20:23 J	-7757771.82	-7757771.65	-7757771.46	0.0141	0.0098		
Saturn	-25927-05-15 09:07 J	-7748279.35	-7748279.12	-7748278.89	0.0272	0.0084		
Jupiter	-25919-10-13 11:31 J	-7745206.22	-7745206.02	-7745205.82	0.0489	0.0250		
Uranus	-25916-11-11 15:50 J	-7744081.06	-7744080.84	-7744080.59	0.0139	0.0063		

Uranus	-25915-11-16 16:04 J	-7743711.08	-7743710.83	-7743710.58	0.0138	0.0020
Uranus	-25914-11-21 03:35 J	-7743341.46	-7743341.35	-7743341.23	0.0138	0.0124
Saturn	-25912-11-14 13:26 J	-7742617.18	-7742616.94	-7742616.70	0.0288	0.0016
Jupiter	-25907-10-18 05:02 J	-7740818.49	-7740818.29	-7740818.09	0.0490	0.0245
Saturn	-25898-05-10 12:57 J	-7737692.15	-7737691.96	-7737691.76	0.0273	0.0171
Neptune	-25890-10-16 18:43 J	-7734610.89	-7734610.72	-7734610.51	0.0088	0.0058
Neptune	-25889-10-18 07:11 J	-7734243.45	-7734243.20	-7734242.93	0.0088	0.0023
Neptune	-25888-10-20 22:33 J	-7733875.78	-7733875.56	-7733875.30	0.0088	0.0029
Neptune	-25887-10-23 06:14 J	-7733508.40	-7733508.24	-7733508.03	0.0088	0.0063
Pluto	-25883-01-16 21:50 J	-7732326.75	-7732326.59	-7732326.38	0.0077	0.0055
Mars	-25881-03-27 13:11 J	-7731526.11	-7731525.95	-7731525.78	0.1627	0.0895
Jupiter	-25877-04-15 17:02 J	-7730046.03	-7730045.79	-7730045.56	0.0537	0.0012
Uranus	-25871-05-11 00:43 J	-7727829.64	-7727829.47	-7727829.25	0.0140	0.0090
Uranus	-25870-05-15 09:21 J	-7727460.35	-7727460.11	-7727459.86	0.0140	0.0009
Uranus	-25869-05-19 05:45 J	-7727090.39	-7727090.26	-7727090.08	0.0141	0.0111
Saturn	-25868-05-16 17:02 J	-7726727.99	-7726727.79	-7726727.59	0.0272	0.0147
Jupiter	-25865-04-20 11:02 J	-7725658.05	-7725658.04	-7725658.02	0.0537	0.0535
Saturn	-25853-11-15 17:59 J	-7721065.99	-7721065.75	-7721065.51	0.0288	0.0076
Saturn	-25839-05-11 12:28 J	-7716141.21	-7716140.98	-7716140.74	0.0273	0.0106
Jupiter	-25836-10-13 01:26 J	-7714890.62	-7714890.44	-7714890.25	0.0489	0.0304
Uranus	-25832-11-12 01:55 J	-7713399.63	-7713399.42	-7713399.18	0.0139	0.0072
Uranus	-25831-11-17 02:23 J	-7713029.63	-7713029.40	-7713029.15	0.0138	0.0038
Uranus	-25830-11-21 12:43 J	-7712660.09	-7712659.97	-7712659.83	0.0138	0.0119
Jupiter	-25824-10-17 07:11 J	-7710503.43	-7710503.20	-7710502.97	0.0490	0.0189
Saturn	-25824-11-09 05:02 J	-7710480.42	-7710480.29	-7710480.14	0.0287	0.0236
Saturn	-25809-05-17 22:04 J	-7705176.73	-7705176.58	-7705176.42	0.0272	0.0205
Neptune	-25807-04-17 04:33 J	-7704477.49	-7704477.31	-7704477.09	0.0089	0.0057
Neptune	-25806-04-19 19:11 J	-7704109.93	-7704109.70	-7704109.44	0.0089	0.0018
Neptune	-25805-04-21 00:43 J	-7703742.71	-7703742.47	-7703742.23	0.0089	0.0032
Neptune	-25804-04-23 17:31 J	-7703374.89	-7703374.77	-7703374.59	0.0089	0.0072

Jupiter	-25794-04-15 15:07 J	-7699731.09	-7699730.87	-7699730.65	0.0538	0.0113
Saturn	-25794-11-17 14:52 J	-7699515.10	-7699514.88	-7699514.64	0.0289	0.0129
Uranus	-25787-05-11 08:23 J	-7697148.36	-7697148.15	-7697147.94	0.0140	0.0080
Uranus	-25786-05-15 17:16 J	-7696779.02	-7696778.78	-7696778.54	0.0140	0.0012
Uranus	-25785-05-19 13:26 J	-7696409.10	-7696408.94	-7696408.76	0.0141	0.0105
Jupiter	-25782-04-21 02:23 J	-7695342.51	-7695342.40	-7695342.28	0.0537	0.0466
Saturn	-25780-05-12 11:45 J	-7694590.25	-7694590.01	-7694589.77	0.0273	0.0048
Mars	-25779-09-22 19:55 J	-7694091.84	-7694091.67	-7694091.49	0.1892	0.0851
Saturn	-25765-11-10 07:11 J	-7688929.37	-7688929.20	-7688929.01	0.0287	0.0190
Mars	-25755-03-25 00:28 J	-7685507.62	-7685507.48	-7685507.34	0.1627	0.1045
Jupiter	-25753-10-12 07:26 J	-7684575.36	-7684575.19	-7684575.01	0.0490	0.0335
Saturn	-25750-05-19 19:26 J	-7683625.76	-7683625.69	-7683625.61	0.0272	0.0258
Uranus	-25748-11-12 09:35 J	-7682718.33	-7682718.10	-7682717.85	0.0139	0.0055
Uranus	-25747-11-17 10:19 J	-7682348.31	-7682348.07	-7682347.81	0.0138	0.0027
Uranus	-25746-11-21 20:23 J	-7681978.71	-7681978.65	-7681978.57	0.0138	0.0132
Jupiter	-25741-10-16 21:21 J	-7680187.83	-7680187.61	-7680187.39	0.0490	0.0155
Saturn	-25735-11-18 10:04 J	-7677964.27	-7677964.08	-7677963.87	0.0289	0.0176
Neptune	-25726-10-16 03:35 J	-7674710.41	-7674710.35	-7674710.22	0.0088	0.0082
Neptune	-25725-10-17 20:09 J	-7674342.88	-7674342.66	-7674342.42	0.0088	0.0040
Neptune	-25724-10-20 03:21 J	-7673975.62	-7673975.36	-7673975.09	0.0088	0.0005
Pluto	-25723-07-16 03:07 J	-7673706.63	-7673706.37	-7673706.10	0.0068	0.0008
Neptune	-25723-10-22 22:04 J	-7673607.78	-7673607.58	-7673607.34	0.0088	0.0047
Saturn	-25721-05-13 15:07 J	-7673039.10	-7673038.87	-7673038.63	0.0272	0.0007
Jupiter	-25711-04-15 09:21 J	-7669415.33	-7669415.11	-7669414.90	0.0538	0.0176
Saturn	-25706-11-12 07:26 J	-7667378.40	-7667378.19	-7667377.97	0.0287	0.0145
Uranus	-25703-05-11 15:07 J	-7666467.06	-7666466.87	-7666466.65	0.0140	0.0086
Uranus	-25702-05-16 01:11 J	-7666097.69	-7666097.45	-7666097.21	0.0140	0.0015
Uranus	-25701-05-19 19:55 J	-7665727.80	-7665727.67	-7665727.50	0.0141	0.0114
Jupiter	-25699-04-20 00:14 J	-7665027.65	-7665027.49	-7665027.32	0.0537	0.0380
Saturn	-25692-05-08 17:16 J	-7662451.87	-7662451.78	-7662451.68	0.0275	0.0254

Mars	-25676-03-26 19:40 J	-7656650.85	-7656650.68	-7656650.50	0.1627	0.0217
Saturn	-25676-11-19 09:50 J	-7656413.23	-7656413.09	-7656412.93	0.0289	0.0224
Jupiter	-25670-10-12 21:07 J	-7654259.76	-7654259.62	-7654259.47	0.0489	0.0371
Uranus	-25664-11-12 16:47 J	-7652037.02	-7652036.80	-7652036.57	0.0139	0.0066
Uranus	-25663-11-17 17:45 J	-7651666.99	-7651666.76	-7651666.51	0.0138	0.0044
Saturn	-25662-05-15 18:14 J	-7651487.97	-7651487.74	-7651487.51	0.0272	0.0056
Uranus	-25662-11-22 03:21 J	-7651297.46	-7651297.36	-7651297.23	0.0138	0.0123
Jupiter	-25658-10-17 07:40 J	-7649872.42	-7649872.18	-7649871.94	0.0489	0.0107
Saturn	-25647-11-13 01:11 J	-7645827.69	-7645827.45	-7645827.21	0.0287	0.0103
Neptune	-25643-04-16 20:09 J	-7644576.77	-7644576.66	-7644576.50	0.0089	0.0076
Neptune	-25642-04-19 01:26 J	-7644209.67	-7644209.44	-7644209.21	0.0089	0.0040
Neptune	-25641-04-20 18:28 J	-7643841.97	-7643841.73	-7643841.47	0.0089	0.0012
Neptune	-25640-04-22 22:19 J	-7643474.76	-7643474.57	-7643474.34	0.0089	0.0048
Pluto	-25637-01-19 02:52 J	-7642473.57	-7642473.38	-7642473.15	0.0077	0.0044
Saturn	-25633-05-09 11:16 J	-7640901.19	-7640901.03	-7640900.86	0.0275	0.0203
Jupiter	-25628-04-14 05:16 J	-7639100.48	-7639100.28	-7639100.07	0.0537	0.0267
Uranus	-25619-05-11 22:47 J	-7635785.76	-7635785.55	-7635785.32	0.0140	0.0074
Uranus	-25618-05-16 09:50 J	-7635416.33	-7635416.09	-7635415.84	0.0140	0.0016
Uranus	-25617-05-20 03:50 J	-7635046.48	-7635046.34	-7635046.17	0.0141	0.0111
Saturn	-25617-11-20 12:28 J	-7634862.06	-7634861.98	-7634861.89	0.0289	0.0270
Jupiter	-25616-04-19 11:02 J	-7634712.22	-7634712.04	-7634711.85	0.0537	0.0303
Saturn	-25603-05-16 17:02 J	-7629937.01	-7629936.79	-7629936.56	0.0272	0.0105
Mars	-25597-03-28 14:52 J	-7627794.00	-7627793.88	-7627793.75	0.1627	0.1169
Saturn	-25588-11-13 19:40 J	-7624276.93	-7624276.68	-7624276.44	0.0287	0.0058
Jupiter	-25587-10-12 08:38 J	-7623944.27	-7623944.14	-7623944.00	0.0489	0.0408
Uranus	-25580-11-12 22:19 J	-7621355.79	-7621355.57	-7621355.32	0.0139	0.0052
Uranus	-25579-11-17 23:31 J	-7620985.76	-7620985.52	-7620985.26	0.0138	0.0030
Uranus	-25578-11-22 09:35 J	-7620616.13	-7620616.10	-7620616.06	0.0138	0.0136
Jupiter	-25575-10-16 15:21 J	-7619557.09	-7619556.86	-7619556.63	0.0490	0.0062
Saturn	-25574-05-11 09:50 J	-7619350.28	-7619350.09	-7619349.89	0.0275	0.0155

Jupiter -25563-10-21 08:38 J -7615169.17 -7615169.14 -7615169.11 0.0490 0.0486
 Neptune -25561-10-17 00:28 J -7614442.68 -7614442.48 -7614442.27 0.0088 0.0055
 Neptune -25560-10-19 20:09 J -7614074.91 -7614074.66 -7614074.40 0.0088 0.0021
 Neptune -25559-10-22 01:26 J -7613707.67 -7613707.44 -7613707.18 0.0088 0.0031
 Neptune -25558-10-24 20:23 J -7613339.80 -7613339.65 -7613339.44 0.0088 0.0065
 Jupiter -25545-04-13 17:31 J -7608784.93 -7608784.77 -7608784.60 0.0538 0.0351
 Saturn -25544-05-17 12:28 J -7608386.18 -7608385.98 -7608385.77 0.0272 0.0157
 Uranus -25535-05-12 09:07 J -7605104.32 -7605104.12 -7605103.89 0.0140 0.0078
 Uranus -25534-05-16 21:07 J -7604734.86 -7604734.62 -7604734.38 0.0140 0.0024
 Jupiter -25533-04-18 18:28 J -7604396.94 -7604396.73 -7604396.51 0.0537 0.0248
 Uranus -25533-05-20 14:09 J -7604365.03 -7604364.91 -7604364.76 0.0141 0.0120
 Saturn -25529-11-14 22:33 J -7602725.80 -7602725.56 -7602725.32 0.0287 0.0006
 Saturn -25515-05-12 14:09 J -7597799.13 -7597798.91 -7597798.69 0.0275 0.0101
 Jupiter -25504-10-11 12:43 J -7593629.03 -7593628.97 -7593628.90 0.0490 0.0466
 Uranus -25496-11-13 06:28 J -7590674.45 -7590674.23 -7590674.00 0.0139 0.0061
 Uranus -25495-11-18 07:26 J -7590304.43 -7590304.19 -7590303.94 0.0138 0.0047
 Uranus -25494-11-22 17:31 J -7589934.87 -7589934.77 -7589934.67 0.0138 0.0126
 Jupiter -25492-10-16 06:14 J -7589241.48 -7589241.24 -7589240.99 0.0490 0.0012
 Saturn -25485-05-18 11:59 J -7586835.14 -7586835.00 -7586834.85 0.0272 0.0211
 Jupiter -25480-10-20 08:52 J -7584854.24 -7584854.13 -7584854.00 0.0490 0.0418
 Neptune -25478-04-18 19:55 J -7584308.86 -7584308.67 -7584308.46 0.0089 0.0055
 Neptune -25477-04-19 23:59 J -7583941.74 -7583941.50 -7583941.25 0.0089 0.0015
 Pluto -25477-07-17 09:07 J -7583853.37 -7583853.12 -7583852.86 0.0068 0.0012
 Neptune -25476-04-22 16:04 J -7583574.06 -7583573.83 -7583573.58 0.0089 0.0033
 Neptune -25475-04-24 23:02 J -7583206.67 -7583206.54 -7583206.39 0.0089 0.0073
 Mars -25471-03-26 02:52 J -7581775.56 -7581775.38 -7581775.21 0.1627 0.0760
 Saturn -25470-11-17 07:40 J -7581174.42 -7581174.18 -7581173.94 0.0287 0.0059
 Jupiter -25462-04-13 21:21 J -7578469.75 -7578469.61 -7578469.46 0.0537 0.0425
 Saturn -25456-05-13 17:16 J -7576248.02 -7576247.78 -7576247.54 0.0275 0.0045
 Uranus -25451-05-12 18:43 J -7574422.95 -7574422.72 -7574422.49 0.0140 0.0062

Jupiter	-25450-04-18 20:23 J	-7574081.86	-7574081.65	-7574081.43	0.0537	0.0163
Uranus	-25450-05-17 07:55 J	-7574053.40	-7574053.17	-7574052.93	0.0140	0.0025
Uranus	-25449-05-20 23:59 J	-7573683.60	-7573683.50	-7573683.35	0.0141	0.0122
Saturn	-25441-11-10 09:50 J	-7570588.23	-7570588.09	-7570587.93	0.0286	0.0229
Saturn	-25426-05-20 19:26 J	-7565283.72	-7565283.69	-7565283.66	0.0272	0.0270
Mars	-25416-09-25 14:09 J	-7561503.08	-7561502.91	-7561502.73	0.1893	0.0693
Uranus	-25412-11-13 14:52 J	-7559993.11	-7559992.88	-7559992.63	0.0139	0.0046
Uranus	-25411-11-18 15:21 J	-7559623.11	-7559622.86	-7559622.60	0.0138	0.0037
Saturn	-25411-11-18 16:47 J	-7559623.02	-7559622.80	-7559622.57	0.0287	0.0130 *
Jupiter	-25409-10-15 05:31 J	-7558926.51	-7558926.27	-7558926.03	0.0490	0.0063
Saturn	-25397-05-14 17:02 J	-7554697.04	-7554696.79	-7554696.54	0.0275	0.0014
Neptune	-25397-10-16 16:47 J	-7554541.88	-7554541.80	-7554541.66	0.0088	0.0080
Jupiter	-25397-10-19 20:38 J	-7554538.80	-7554538.64	-7554538.47	0.0490	0.0344
Neptune	-25396-10-18 23:02 J	-7554174.76	-7554174.54	-7554174.30	0.0088	0.0039
Neptune	-25395-10-21 17:45 J	-7553807.02	-7553806.76	-7553806.49	0.0088	0.0007
Neptune	-25394-10-24 01:26 J	-7553439.63	-7553439.44	-7553439.21	0.0088	0.0049
Mars	-25392-03-28 09:07 J	-7552918.31	-7552918.12	-7552917.94	0.1627	0.0213
Pluto	-25391-01-20 16:47 J	-7552620.04	-7552619.80	-7552619.54	0.0077	0.0019
Saturn	-25382-11-12 19:40 J	-7549036.88	-7549036.68	-7549036.47	0.0286	0.0155
Saturn	-25368-05-09 20:38 J	-7544109.76	-7544109.64	-7544109.51	0.0275	0.0232
Jupiter	-25367-04-18 00:14 J	-7543766.72	-7543766.49	-7543766.25	0.0537	0.0053
Uranus	-25367-05-13 04:19 J	-7543741.53	-7543741.32	-7543741.08	0.0140	0.0069
Uranus	-25366-05-17 18:57 J	-7543371.94	-7543371.71	-7543371.47	0.0140	0.0034
Uranus	-25365-05-21 10:04 J	-7543002.18	-7543002.08	-7543001.97	0.0141	0.0128
Saturn	-25352-11-20 01:40 J	-7538071.59	-7538071.43	-7538071.24	0.0287	0.0210
Saturn	-25338-05-16 20:09 J	-7533145.88	-7533145.66	-7533145.42	0.0274	0.0080
Uranus	-25328-11-14 00:57 J	-7529311.68	-7529311.46	-7529311.22	0.0139	0.0052
Uranus	-25327-11-19 00:57 J	-7528941.69	-7528941.46	-7528941.21	0.0138	0.0055
Jupiter	-25326-10-15 13:55 J	-7528611.14	-7528610.92	-7528610.70	0.0490	0.0151
Uranus	-25326-11-23 11:31 J	-7528572.06	-7528572.02	-7528571.94	0.0138	0.0134

Saturn -25323-11-14 12:28 J -7527485.21 -7527484.98 -7527484.75 0.0286 0.0074
 Neptune -25314-04-18 01:40 J -7524408.54 -7524408.43 -7524408.26 0.0089 0.0074
 Jupiter -25314-10-19 19:55 J -7524223.87 -7524223.67 -7524223.46 0.0490 0.0264
 Neptune -25313-04-19 17:45 J -7524040.98 -7524040.76 -7524040.51 0.0089 0.0038
 Neptune -25312-04-22 00:57 J -7523673.69 -7523673.46 -7523673.21 0.0089 0.0015
 Neptune -25311-04-24 12:14 J -7523306.20 -7523305.99 -7523305.76 0.0089 0.0050
 Saturn -25309-05-11 08:09 J -7522558.34 -7522558.16 -7522557.96 0.0275 0.0161
 Jupiter -25284-04-16 20:52 J -7513451.86 -7513451.63 -7513451.41 0.0537 0.0045
 Uranus -25283-05-13 11:31 J -7513060.24 -7513060.02 -7513059.77 0.0140 0.0054
 Uranus -25282-05-18 03:35 J -7512690.58 -7512690.35 -7512690.11 0.0140 0.0032
 Uranus -25281-05-21 17:16 J -7512320.85 -7512320.78 -7512320.66 0.0141 0.0130
 Saturn -25279-05-18 06:43 J -7511594.41 -7511594.22 -7511594.02 0.0274 0.0148
 Saturn -25264-11-16 07:26 J -7505933.43 -7505933.19 -7505932.94 0.0286 0.0011
 Saturn -25250-05-13 18:14 J -7501006.97 -7501006.74 -7501006.50 0.0275 0.0087
 Uranus -25244-11-14 10:04 J -7498630.31 -7498630.08 -7498629.83 0.0139 0.0038
 Jupiter -25243-10-14 11:45 J -7498296.23 -7498296.01 -7498295.79 0.0490 0.0231
 Uranus -25243-11-19 09:07 J -7498260.36 -7498260.12 -7498259.86 0.0138 0.0045
 Neptune -25232-10-18 14:52 J -7494274.07 -7494273.88 -7494273.64 0.0088 0.0053
 Pluto -25231-07-19 20:23 J -7493999.87 -7493999.65 -7493999.41 0.0068 0.0027
 Jupiter -25231-10-19 00:28 J -7493908.69 -7493908.48 -7493908.26 0.0490 0.0179
 Neptune -25231-10-21 00:43 J -7493906.72 -7493906.47 -7493906.22 0.0088 0.0018
 Neptune -25230-10-23 14:38 J -7493539.13 -7493538.89 -7493538.62 0.0088 0.0033
 Neptune -25229-10-25 03:50 J -7493171.48 -7493171.34 -7493171.16 0.0088 0.0068
 Saturn -25220-05-19 20:52 J -7490042.76 -7490042.63 -7490042.49 0.0274 0.0222
 Saturn -25205-11-17 23:16 J -7484381.76 -7484381.53 -7484381.28 0.0287 0.0102
 Jupiter -25201-04-15 21:50 J -7483136.80 -7483136.59 -7483136.37 0.0537 0.0183
 Uranus -25199-05-13 18:14 J -7482378.95 -7482378.74 -7482378.49 0.0140 0.0065
 Uranus -25198-05-18 11:16 J -7482009.26 -7482009.03 -7482008.79 0.0140 0.0040
 Uranus -25197-05-21 23:45 J -7481639.60 -7481639.51 -7481639.41 0.0141 0.0130
 Saturn -25191-05-15 01:26 J -7479455.69 -7479455.44 -7479455.19 0.0275 0.0011

Jupiter	-25189-04-20 13:55 J	-7478749.05	-7478748.92	-7478748.78	0.0537	0.0429
Mars	-25187-03-27 02:38 J	-7478043.57	-7478043.39	-7478043.21	0.1628	0.0455
Saturn	-25176-11-12 00:14 J	-7473795.66	-7473795.49	-7473795.31	0.0285	0.0196
Saturn	-25162-05-10 02:09 J	-7468868.45	-7468868.41	-7468868.36	0.0276	0.0270
Uranus	-25161-11-10 03:07 J	-7468318.44	-7468318.37	-7468318.29	0.0139	0.0133
Jupiter	-25160-10-13 14:09 J	-7467981.08	-7467980.91	-7467980.74	0.0490	0.0331
Uranus	-25160-11-14 19:26 J	-7467948.93	-7467948.69	-7467948.45	0.0139	0.0043
Uranus	-25159-11-19 17:16 J	-7467579.00	-7467578.78	-7467578.53	0.0138	0.0063
Neptune	-25149-04-19 03:07 J	-7464140.55	-7464140.37	-7464140.16	0.0089	0.0052
Neptune	-25148-04-21 14:23 J	-7463773.15	-7463772.90	-7463772.63	0.0089	0.0013
Jupiter	-25148-10-18 01:11 J	-7463593.69	-7463593.45	-7463593.20	0.0490	0.0080
Neptune	-25147-04-24 02:52 J	-7463405.60	-7463405.38	-7463405.14	0.0089	0.0035
Neptune	-25146-04-26 09:21 J	-7463038.25	-7463038.11	-7463037.97	0.0089	0.0075
Saturn	-25146-11-20 10:47 J	-7462830.24	-7462830.05	-7462829.86	0.0287	0.0190
Pluto	-25145-01-22 22:47 J	-7462766.82	-7462766.55	-7462766.28	0.0077	0.0004
Saturn	-25132-05-16 10:33 J	-7457904.29	-7457904.06	-7457903.82	0.0274	0.0066
Mars	-25132-09-24 20:09 J	-7457772.87	-7457772.66	-7457772.46	0.1891	0.0580
Jupiter	-25118-04-15 12:14 J	-7452822.17	-7452821.99	-7452821.79	0.0537	0.0304
Saturn	-25117-11-13 20:38 J	-7452243.86	-7452243.64	-7452243.41	0.0286	0.0106
Uranus	-25115-05-13 23:59 J	-7451697.73	-7451697.50	-7451697.25	0.0140	0.0050
Uranus	-25114-05-18 17:59 J	-7451327.98	-7451327.75	-7451327.51	0.0140	0.0033
Uranus	-25113-05-22 05:02 J	-7450958.36	-7450958.29	-7450958.19	0.0141	0.0133
Mars	-25108-03-29 06:57 J	-7449186.40	-7449186.21	-7449186.03	0.1627	0.0558
Jupiter	-25106-04-20 20:52 J	-7448433.80	-7448433.63	-7448433.45	0.0537	0.0334
Saturn	-25103-05-11 15:35 J	-7447317.02	-7447316.85	-7447316.67	0.0276	0.0192
Saturn	-25087-11-21 23:16 J	-7441278.58	-7441278.53	-7441278.45	0.0287	0.0276
Jupiter	-25077-10-12 19:40 J	-7437665.81	-7437665.68	-7437665.53	0.0490	0.0406
Uranus	-25077-11-10 08:38 J	-7437637.22	-7437637.14	-7437637.05	0.0139	0.0132
Uranus	-25076-11-15 02:09 J	-7437267.65	-7437267.41	-7437267.16	0.0139	0.0033
Uranus	-25075-11-19 23:02 J	-7436897.78	-7436897.54	-7436897.28	0.0138	0.0051

Saturn	-25073-05-17 23:45 J	-7436352.71	-7436352.51	-7436352.31	0.0274	0.0137
Neptune	-25068-10-17 21:07 J	-7434373.71	-7434373.62	-7434373.47	0.0088	0.0077
Neptune	-25067-10-20 10:33 J	-7434006.28	-7434006.06	-7434005.79	0.0088	0.0037
Neptune	-25066-10-23 01:26 J	-7433638.68	-7433638.44	-7433638.18	0.0088	0.0010
Jupiter	-25065-10-17 01:55 J	-7433278.65	-7433278.42	-7433278.19	0.0490	0.0004
Neptune	-25065-10-24 10:19 J	-7433271.28	-7433271.07	-7433270.84	0.0088	0.0051
Saturn	-25058-11-16 10:47 J	-7430692.30	-7430692.05	-7430691.80	0.0286	0.0026
Jupiter	-25053-10-21 18:57 J	-7428890.77	-7428890.71	-7428890.64	0.0490	0.0467
Saturn	-25044-05-12 22:04 J	-7425765.80	-7425765.58	-7425765.35	0.0275	0.0120
Jupiter	-25035-04-14 21:50 J	-7422506.75	-7422506.59	-7422506.44	0.0537	0.0384
Uranus	-25032-05-10 00:57 J	-7421385.48	-7421385.46	-7421385.44	0.0139	0.0138
Uranus	-25031-05-14 08:09 J	-7421016.38	-7421016.16	-7421015.92	0.0140	0.0061
Uranus	-25030-05-19 02:52 J	-7420646.61	-7420646.38	-7420646.14	0.0140	0.0045
Uranus	-25029-05-22 12:14 J	-7420277.06	-7420276.99	-7420276.88	0.0141	0.0132
Jupiter	-25023-04-19 15:07 J	-7418119.09	-7418118.87	-7418118.65	0.0537	0.0204
Saturn	-25014-05-20 11:31 J	-7414801.17	-7414801.02	-7414800.86	0.0273	0.0204

25TH MILLENNIUM BCE

This is a list of transits of Moon in the 25th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-24999-11-17 17:16 J	-7409141.03	-7409140.78	-7409140.52	0.0287	0.0050		
Jupiter	-24994-10-12 20:52 J	-7407350.64	-7407350.63	-7407350.59	0.0489	0.0486		
Uranus	-24993-11-10 14:38 J	-7406955.97	-7406955.89	-7406955.77	0.0139	0.0130		

Uranus	-24992-11-15 10:04 J	-7406586.31	-7406586.08	-7406585.83	0.0139	0.0038
Uranus	-24991-11-20 05:59 J	-7406216.48	-7406216.25	-7406216.01	0.0138	0.0065
Pluto	-24986-07-20 08:23 J	-7404513.30	-7404513.15	-7404512.97	0.0068	0.0052
Neptune	-24985-04-18 15:50 J	-7404239.98	-7404239.84	-7404239.66	0.0089	0.0071
Saturn	-24985-05-14 01:40 J	-7404214.67	-7404214.43	-7404214.19	0.0275	0.0054
Pluto	-24985-07-21 05:59 J	-7404146.38	-7404146.25	-7404146.05	0.0068	0.0054
Neptune	-24984-04-21 04:47 J	-7403872.51	-7403872.30	-7403872.06	0.0089	0.0035
Neptune	-24983-04-23 10:47 J	-7403505.30	-7403505.05	-7403504.79	0.0089	0.0017
Mars	-24982-03-26 20:52 J	-7403167.69	-7403167.63	-7403167.57	0.1629	0.1537
Neptune	-24982-04-26 03:21 J	-7403137.55	-7403137.36	-7403137.14	0.0089	0.0052
Jupiter	-24982-10-17 12:43 J	-7402963.20	-7402962.97	-7402962.73	0.0490	0.0075
Jupiter	-24970-10-21 16:04 J	-7398575.96	-7398575.83	-7398575.68	0.0490	0.0393
Saturn	-24970-11-11 15:21 J	-7398554.96	-7398554.86	-7398554.75	0.0285	0.0257
Saturn	-24955-05-21 15:07 J	-7393249.92	-7393249.87	-7393249.79	0.0273	0.0264
Jupiter	-24952-04-13 15:21 J	-7392191.94	-7392191.86	-7392191.77	0.0537	0.0499
Uranus	-24947-05-14 17:16 J	-7390335.01	-7390334.78	-7390334.53	0.0140	0.0042
Uranus	-24946-05-19 12:43 J	-7389965.20	-7389964.97	-7389964.73	0.0140	0.0039
Uranus	-24945-05-22 21:50 J	-7389595.60	-7389595.59	-7389595.55	0.0141	0.0140
Jupiter	-24940-04-18 15:50 J	-7387804.06	-7387803.84	-7387803.62	0.0537	0.0104
Saturn	-24940-11-18 18:14 J	-7387589.97	-7387589.74	-7387589.51	0.0287	0.0113
Saturn	-24926-05-16 07:11 J	-7382663.43	-7382663.20	-7382662.96	0.0274	0.0009
Saturn	-24911-11-12 21:07 J	-7377003.79	-7377003.62	-7377003.44	0.0285	0.0199
Uranus	-24909-11-10 22:19 J	-7376274.69	-7376274.57	-7376274.45	0.0139	0.0124
Uranus	-24908-11-15 18:28 J	-7375904.97	-7375904.73	-7375904.48	0.0139	0.0028
Uranus	-24907-11-20 12:43 J	-7375535.20	-7375534.97	-7375534.71	0.0138	0.0057
Mars	-24903-03-28 17:16 J	-7374310.95	-7374310.78	-7374310.60	0.1628	0.0026
Neptune	-24903-10-19 23:59 J	-7374105.69	-7374105.50	-7374105.28	0.0088	0.0051
Neptune	-24902-10-22 07:40 J	-7373738.43	-7373738.18	-7373737.90	0.0088	0.0016
Neptune	-24901-10-24 02:23 J	-7373370.62	-7373370.40	-7373370.15	0.0088	0.0037
Neptune	-24900-10-26 08:23 J	-7373003.30	-7373003.15	-7373002.99	0.0088	0.0070

Pluto	-24899-01-24 06:14 J	-7372913.44	-7372913.24	-7372913.00	0.0076	0.0043
Jupiter	-24899-10-16 15:07 J	-7372648.10	-7372647.87	-7372647.63	0.0490	0.0123
Saturn	-24897-05-10 13:55 J	-7372076.02	-7372075.92	-7372075.81	0.0276	0.0246
Jupiter	-24887-10-21 09:21 J	-7368260.26	-7368260.11	-7368259.95	0.0490	0.0355
Saturn	-24881-11-19 20:38 J	-7366038.83	-7366038.64	-7366038.45	0.0287	0.0173
Saturn	-24867-05-17 12:57 J	-7361112.18	-7361111.96	-7361111.72	0.0274	0.0064
Uranus	-24864-05-10 20:52 J	-7360022.71	-7360022.63	-7360022.53	0.0139	0.0129
Uranus	-24863-05-15 03:21 J	-7359653.59	-7359653.36	-7359653.12	0.0140	0.0052
Uranus	-24862-05-19 23:16 J	-7359283.75	-7359283.53	-7359283.29	0.0140	0.0054
Uranus	-24861-05-23 07:11 J	-7358914.22	-7358914.20	-7358914.14	0.0141	0.0139
Jupiter	-24857-04-18 05:02 J	-7357488.52	-7357488.29	-7357488.05	0.0537	0.0040
Saturn	-24852-11-13 16:47 J	-7355453.02	-7355452.80	-7355452.57	0.0285	0.0146
Saturn	-24838-05-12 10:04 J	-7350525.25	-7350525.08	-7350524.90	0.0276	0.0193
Uranus	-24825-11-11 07:40 J	-7345593.30	-7345593.18	-7345593.04	0.0139	0.0122
Mars	-24824-03-30 11:45 J	-7345454.16	-7345454.01	-7345453.86	0.1628	0.0902
Uranus	-24824-11-16 05:31 J	-7345223.52	-7345223.27	-7345223.03	0.0139	0.0028
Uranus	-24823-11-20 22:04 J	-7344853.79	-7344853.58	-7344853.34	0.0138	0.0073
Saturn	-24822-11-21 23:31 J	-7344487.66	-7344487.52	-7344487.36	0.0287	0.0228
Neptune	-24820-04-20 12:28 J	-7343972.18	-7343971.98	-7343971.75	0.0089	0.0050
Neptune	-24819-04-23 05:45 J	-7343604.51	-7343604.26	-7343604.01	0.0089	0.0009
Neptune	-24818-04-25 09:07 J	-7343237.34	-7343237.12	-7343236.88	0.0089	0.0037
Neptune	-24817-04-27 02:23 J	-7342869.52	-7342869.40	-7342869.27	0.0089	0.0077
Jupiter	-24816-10-16 08:38 J	-7342332.36	-7342332.14	-7342331.92	0.0490	0.0166
Saturn	-24808-05-18 15:07 J	-7339561.08	-7339560.87	-7339560.64	0.0274	0.0116
Jupiter	-24804-10-20 13:40 J	-7337945.11	-7337944.93	-7337944.73	0.0490	0.0309
Saturn	-24793-11-14 08:38 J	-7333902.37	-7333902.14	-7333901.89	0.0285	0.0096
Uranus	-24780-05-11 06:14 J	-7329341.24	-7329341.24	-7329341.22	0.0139	0.0139
Saturn	-24779-05-13 06:28 J	-7328974.43	-7328974.23	-7328974.03	0.0276	0.0146
Uranus	-24779-05-15 11:59 J	-7328972.23	-7328972.00	-7328971.74	0.0140	0.0034
Uranus	-24778-05-20 08:38 J	-7328602.37	-7328602.14	-7328601.90	0.0140	0.0046

Jupiter	-24774-04-18 02:23 J	-7327173.62	-7327173.40	-7327173.18	0.0537	0.0057
Mars	-24769-09-27 02:23 J	-7325184.56	-7325184.40	-7325184.23	0.1891	0.1318
Saturn	-24763-11-22 20:23 J	-7322936.70	-7322936.65	-7322936.58	0.0287	0.0279
Jupiter	-24762-04-23 08:52 J	-7322785.23	-7322785.13	-7322785.02	0.0537	0.0473
Saturn	-24749-05-19 10:33 J	-7318010.25	-7318010.06	-7318009.85	0.0274	0.0160
Uranus	-24741-11-11 17:02 J	-7314911.93	-7314911.79	-7314911.62	0.0139	0.0112
Pluto	-24740-07-21 20:23 J	-7314659.85	-7314659.65	-7314659.42	0.0068	0.0033
Uranus	-24740-11-16 15:21 J	-7314542.10	-7314541.86	-7314541.60	0.0139	0.0019
Neptune	-24739-10-19 04:19 J	-7314205.44	-7314205.32	-7314205.15	0.0088	0.0073
Uranus	-24739-11-21 07:11 J	-7314172.43	-7314172.20	-7314171.96	0.0138	0.0066
Neptune	-24738-10-21 23:45 J	-7313837.73	-7313837.51	-7313837.25	0.0088	0.0036
Neptune	-24737-10-23 05:45 J	-7313470.51	-7313470.26	-7313470.00	0.0088	0.0012
Neptune	-24736-10-26 01:11 J	-7313102.65	-7313102.45	-7313102.22	0.0088	0.0052
Saturn	-24734-11-16 05:45 J	-7312351.50	-7312351.26	-7312351.02	0.0285	0.0048
Jupiter	-24733-10-15 15:07 J	-7312017.09	-7312016.87	-7312016.64	0.0490	0.0205
Jupiter	-24721-10-20 02:52 J	-7307629.57	-7307629.38	-7307629.19	0.0490	0.0284
Saturn	-24720-05-14 08:09 J	-7307423.37	-7307423.16	-7307422.94	0.0276	0.0102
Mars	-24698-03-27 21:50 J	-7299435.72	-7299435.59	-7299435.46	0.1630	0.1208
Uranus	-24696-05-11 14:09 J	-7298660.02	-7298659.91	-7298659.79	0.0139	0.0123
Uranus	-24695-05-15 19:55 J	-7298290.90	-7298290.67	-7298290.43	0.0140	0.0046
Uranus	-24694-05-20 16:47 J	-7297921.02	-7297920.80	-7297920.58	0.0140	0.0061
Jupiter	-24691-04-17 17:02 J	-7296858.01	-7296857.79	-7296857.57	0.0537	0.0136
Saturn	-24690-05-21 05:16 J	-7296459.43	-7296459.28	-7296459.11	0.0274	0.0205
Jupiter	-24679-04-22 14:23 J	-7292470.05	-7292469.90	-7292469.75	0.0537	0.0411
Saturn	-24675-11-17 06:57 J	-7290800.45	-7290800.21	-7290799.97	0.0285	0.0005
Saturn	-24661-05-15 09:21 J	-7285872.34	-7285872.11	-7285871.87	0.0276	0.0057
Uranus	-24657-11-12 03:21 J	-7284230.52	-7284230.36	-7284230.21	0.0139	0.0112
Neptune	-24656-04-20 06:28 J	-7284071.37	-7284071.23	-7284071.05	0.0089	0.0069
Uranus	-24656-11-17 02:38 J	-7283860.64	-7283860.39	-7283860.14	0.0139	0.0017
Neptune	-24655-04-22 10:19 J	-7283704.28	-7283704.07	-7283703.82	0.0089	0.0034

Uranus -24655-11-21 17:02 J -7283491.01 -7283490.79 -7283490.57 0.0138 0.0081
 Pluto -24654-01-24 20:23 J -7283426.71 -7283426.65 -7283426.52 0.0077 0.0072
 Neptune -24654-04-25 03:21 J -7283336.60 -7283336.36 -7283336.09 0.0089 0.0020
 Pluto -24653-01-26 18:57 J -7283059.80 -7283059.71 -7283059.62 0.0076 0.0071
 Neptune -24653-04-26 08:52 J -7282969.31 -7282969.13 -7282968.92 0.0089 0.0054
 Jupiter -24650-10-16 01:40 J -7281701.63 -7281701.43 -7281701.23 0.0490 0.0247
 Jupiter -24638-10-20 16:47 J -7277314.01 -7277313.80 -7277313.58 0.0490 0.0245
 Saturn -24631-05-22 07:26 J -7274908.26 -7274908.19 -7274908.09 0.0274 0.0253
 Mars -24619-03-30 05:16 J -7270578.46 -7270578.28 -7270578.09 0.1629 0.0423
 Saturn -24616-11-18 08:23 J -7269249.40 -7269249.15 -7269248.91 0.0285 0.0057
 Uranus -24612-05-11 20:09 J -7267978.70 -7267978.66 -7267978.57 0.0139 0.0135
 Uranus -24611-05-16 02:09 J -7267609.64 -7267609.41 -7267609.16 0.0140 0.0030
 Uranus -24610-05-20 22:33 J -7267239.78 -7267239.56 -7267239.31 0.0140 0.0050
 Jupiter -24608-04-16 19:26 J -7266542.91 -7266542.69 -7266542.47 0.0536 0.0206
 Saturn -24602-05-17 06:14 J -7264321.49 -7264321.24 -7264320.99 0.0276 0.0009
 Jupiter -24596-04-21 23:45 J -7262154.69 -7262154.51 -7262154.34 0.0536 0.0329
 Saturn -24587-11-12 07:55 J -7258663.29 -7258663.17 -7258663.03 0.0284 0.0239
 Neptune -24574-10-21 02:23 J -7253937.59 -7253937.40 -7253937.16 0.0088 0.0050
 Saturn -24573-05-10 23:59 J -7253734.54 -7253734.50 -7253734.42 0.0277 0.0267
 Neptune -24573-10-22 22:04 J -7253569.84 -7253569.58 -7253569.31 0.0088 0.0014
 Uranus -24573-11-12 10:33 J -7253549.22 -7253549.06 -7253548.86 0.0139 0.0102
 Neptune -24572-10-25 05:02 J -7253202.51 -7253202.29 -7253202.05 0.0088 0.0037
 Uranus -24572-11-17 11:02 J -7253179.29 -7253179.04 -7253178.79 0.0139 0.0011
 Neptune -24571-10-27 20:23 J -7252834.78 -7252834.65 -7252834.47 0.0088 0.0073
 Uranus -24571-11-22 00:14 J -7252809.70 -7252809.49 -7252809.25 0.0138 0.0076
 Jupiter -24567-10-15 14:09 J -7251386.10 -7251385.91 -7251385.71 0.0490 0.0291
 Saturn -24557-11-19 07:55 J -7247698.40 -7247698.17 -7247697.94 0.0285 0.0120
 Jupiter -24555-10-19 19:40 J -7246998.89 -7246998.68 -7246998.47 0.0490 0.0192
 Saturn -24543-05-18 03:07 J -7242770.61 -7242770.37 -7242770.13 0.0276 0.0042
 Mars -24540-04-01 04:47 J -7241721.38 -7241721.30 -7241721.22 0.1629 0.1423

Uranus	-24528-05-12 02:52 J	-7237297.50	-7237297.38	-7237297.24	0.0139	0.0120
Saturn	-24528-11-13 17:02 J	-7237111.98	-7237111.79	-7237111.59	0.0284	0.0171
Uranus	-24527-05-16 08:52 J	-7236928.35	-7236928.13	-7236927.88	0.0140	0.0043
Uranus	-24526-05-21 05:16 J	-7236558.49	-7236558.28	-7236558.04	0.0140	0.0065
Jupiter	-24525-04-16 01:40 J	-7236227.61	-7236227.43	-7236227.25	0.0536	0.0313
Saturn	-24514-05-13 07:26 J	-7232183.34	-7232183.19	-7232183.03	0.0277	0.0208
Jupiter	-24513-04-21 00:43 J	-7231839.68	-7231839.47	-7231839.25	0.0537	0.0228
Saturn	-24498-11-21 11:59 J	-7226147.18	-7226147.00	-7226146.82	0.0286	0.0193
Pluto	-24494-07-24 08:09 J	-7224806.42	-7224806.16	-7224805.89	0.0068	0.0007
Neptune	-24491-04-22 04:04 J	-7223803.53	-7223803.33	-7223803.10	0.0089	0.0049
Neptune	-24490-04-24 10:19 J	-7223436.31	-7223436.07	-7223435.82	0.0089	0.0008
Neptune	-24489-04-25 22:47 J	-7223068.77	-7223068.55	-7223068.29	0.0089	0.0038
Uranus	-24489-11-12 17:45 J	-7222867.91	-7222867.76	-7222867.58	0.0139	0.0107
Neptune	-24488-04-28 09:35 J	-7222701.21	-7222701.10	-7222700.98	0.0089	0.0079
Uranus	-24488-11-17 19:26 J	-7222497.94	-7222497.69	-7222497.44	0.0139	0.0010
Uranus	-24487-11-22 07:55 J	-7222128.36	-7222128.17	-7222127.95	0.0138	0.0086
Mars	-24485-09-25 12:57 J	-7221455.14	-7221454.96	-7221454.77	0.1888	0.0725
Saturn	-24484-05-19 05:59 J	-7221219.47	-7221219.25	-7221219.03	0.0276	0.0102
Jupiter	-24484-10-14 12:14 J	-7221071.13	-7221070.99	-7221070.83	0.0491	0.0368
Jupiter	-24472-10-19 07:11 J	-7216683.43	-7216683.20	-7216682.97	0.0491	0.0121
Saturn	-24469-11-15 05:45 J	-7215560.50	-7215560.26	-7215560.03	0.0284	0.0094
Saturn	-24455-05-14 13:40 J	-7210632.13	-7210631.93	-7210631.72	0.0277	0.0145
Uranus	-24444-05-12 11:45 J	-7206616.09	-7206616.01	-7206615.88	0.0139	0.0127
Uranus	-24443-05-16 18:43 J	-7206246.96	-7206246.72	-7206246.48	0.0140	0.0024
Jupiter	-24442-04-16 03:21 J	-7205912.51	-7205912.36	-7205912.20	0.0537	0.0405
Uranus	-24442-05-21 14:09 J	-7205877.13	-7205876.91	-7205876.66	0.0140	0.0054
Saturn	-24439-11-23 00:57 J	-7204595.51	-7204595.46	-7204595.39	0.0286	0.0275
Jupiter	-24430-04-21 04:19 J	-7201524.53	-7201524.32	-7201524.10	0.0536	0.0148
Saturn	-24425-05-20 15:50 J	-7199668.03	-7199667.84	-7199667.66	0.0276	0.0165
Mars	-24414-03-28 23:16 J	-7195703.68	-7195703.53	-7195703.37	0.1632	0.0892

Neptune -24410-10-20 17:31 J -7194036.90 -7194036.77 -7194036.59 0.0088 0.0072
 Saturn -24410-11-17 16:33 J -7194009.07 -7194008.81 -7194008.55 0.0284 0.0010
 Neptune -24409-10-22 02:09 J -7193669.63 -7193669.41 -7193669.16 0.0088 0.0034
 Pluto -24408-01-26 04:19 J -7193573.55 -7193573.32 -7193573.08 0.0077 0.0034
 Neptune -24408-10-24 17:45 J -7193302.03 -7193301.76 -7193301.49 0.0088 0.0014
 Neptune -24407-10-27 05:45 J -7192934.44 -7192934.26 -7192934.03 0.0088 0.0053
 Uranus -24405-11-13 01:26 J -7192186.63 -7192186.44 -7192186.25 0.0139 0.0095
 Uranus -24404-11-18 03:07 J -7191816.62 -7191816.37 -7191816.11 0.0139 0.0006
 Uranus -24403-11-22 15:07 J -7191447.07 -7191446.87 -7191446.65 0.0138 0.0082
 Jupiter -24401-10-14 01:11 J -7190755.56 -7190755.45 -7190755.34 0.0490 0.0430
 Saturn -24396-05-15 17:16 J -7189081.02 -7189080.78 -7189080.54 0.0277 0.0080
 Jupiter -24389-10-18 04:04 J -7186368.57 -7186368.33 -7186368.09 0.0490 0.0046
 Jupiter -24377-10-22 20:09 J -7181980.71 -7181980.66 -7181980.60 0.0490 0.0475
 Saturn -24366-05-23 02:23 J -7178116.51 -7178116.40 -7178116.26 0.0276 0.0234
 Uranus -24360-05-12 22:04 J -7175934.73 -7175934.58 -7175934.42 0.0139 0.0110
 Jupiter -24359-04-15 04:47 J -7175597.36 -7175597.30 -7175597.24 0.0536 0.0513
 Uranus -24359-05-17 05:16 J -7175565.51 -7175565.28 -7175565.03 0.0140 0.0033
 Uranus -24358-05-22 00:43 J -7175195.67 -7175195.47 -7175195.24 0.0140 0.0073
 Saturn -24351-11-19 03:21 J -7172457.61 -7172457.36 -7172457.11 0.0284 0.0078
 Jupiter -24347-04-20 04:33 J -7171209.54 -7171209.31 -7171209.07 0.0536 0.0015
 Saturn -24337-05-17 00:28 J -7167529.72 -7167529.48 -7167529.23 0.0277 0.0010
 Mars -24335-03-31 03:21 J -7166846.54 -7166846.36 -7166846.19 0.1631 0.0702
 Neptune -24327-04-21 10:33 J -7163903.20 -7163903.06 -7163902.89 0.0089 0.0069
 Neptune -24326-04-23 23:02 J -7163535.78 -7163535.54 -7163535.29 0.0089 0.0034
 Neptune -24325-04-25 10:33 J -7163168.30 -7163168.06 -7163167.82 0.0089 0.0019
 Neptune -24324-04-27 17:45 J -7162800.95 -7162800.76 -7162800.54 0.0089 0.0054
 Saturn -24322-11-13 15:21 J -7161871.00 -7161870.86 -7161870.70 0.0283 0.0220
 Uranus -24321-11-13 11:02 J -7161505.21 -7161505.04 -7161504.84 0.0139 0.0099
 Uranus -24320-11-18 13:55 J -7161135.18 -7161134.92 -7161134.67 0.0139 0.0001
 Uranus -24319-11-23 01:26 J -7160765.62 -7160765.44 -7160765.24 0.0138 0.0094

Saturn	-24308-05-12 02:52 J	-7156942.41	-7156942.38	-7156942.33	0.0279	0.0274
Jupiter	-24306-10-18 08:52 J	-7156053.35	-7156053.13	-7156052.89	0.0490	0.0050
Jupiter	-24294-10-22 16:47 J	-7151665.96	-7151665.80	-7151665.64	0.0491	0.0371
Saturn	-24292-11-20 19:11 J	-7150905.89	-7150905.70	-7150905.49	0.0285	0.0169
Saturn	-24278-05-19 14:09 J	-7145978.13	-7145977.91	-7145977.68	0.0276	0.0068
Uranus	-24276-05-13 08:52 J	-7145253.26	-7145253.13	-7145252.97	0.0139	0.0115
Uranus	-24275-05-17 17:16 J	-7144884.03	-7144883.78	-7144883.54	0.0140	0.0013
Uranus	-24274-05-22 11:59 J	-7144514.23	-7144514.00	-7144513.77	0.0140	0.0064
Jupiter	-24264-04-18 19:40 J	-7140894.91	-7140894.68	-7140894.46	0.0537	0.0109
Saturn	-24263-11-15 10:04 J	-7140319.30	-7140319.08	-7140318.86	0.0283	0.0131
Jupiter	-24252-04-24 05:45 J	-7136506.30	-7136506.26	-7136506.21	0.0536	0.0524
Saturn	-24249-05-13 13:40 J	-7135391.10	-7135390.93	-7135390.75	0.0278	0.0192
Pluto	-24248-07-25 09:50 J	-7134953.34	-7134953.09	-7134952.81	0.0068	0.0014
Neptune	-24245-10-21 11:02 J	-7133769.23	-7133769.04	-7133768.79	0.0088	0.0051
Neptune	-24244-10-24 01:11 J	-7133401.69	-7133401.45	-7133401.19	0.0088	0.0014
Neptune	-24243-10-26 10:47 J	-7133034.29	-7133034.05	-7133033.80	0.0088	0.0036
Neptune	-24242-10-29 05:02 J	-7132666.43	-7132666.29	-7132666.14	0.0088	0.0073
Uranus	-24237-11-13 22:33 J	-7130823.75	-7130823.56	-7130823.34	0.0139	0.0083
Uranus	-24236-11-19 01:11 J	-7130453.70	-7130453.45	-7130453.19	0.0139	0.0006
Uranus	-24235-11-23 12:14 J	-7130084.16	-7130083.99	-7130083.78	0.0138	0.0095
Saturn	-24233-11-22 14:38 J	-7129353.98	-7129353.89	-7129353.78	0.0285	0.0259
Jupiter	-24223-10-17 09:35 J	-7125738.34	-7125738.10	-7125737.86	0.0490	0.0124
Saturn	-24219-05-21 05:45 J	-7124426.45	-7124426.26	-7124426.05	0.0276	0.0144
Jupiter	-24211-10-21 19:55 J	-7121350.85	-7121350.67	-7121350.48	0.0490	0.0292
Mars	-24209-03-27 17:16 J	-7120827.89	-7120827.78	-7120827.66	0.1634	0.1243
Saturn	-24204-11-16 23:31 J	-7118767.77	-7118767.52	-7118767.26	0.0284	0.0040
Mars	-24201-09-25 03:50 J	-7117724.39	-7117724.34	-7117724.29	0.1886	0.1813
Uranus	-24192-05-13 18:28 J	-7114571.90	-7114571.73	-7114571.54	0.0139	0.0100
Uranus	-24191-05-18 03:50 J	-7114202.58	-7114202.34	-7114202.10	0.0140	0.0022
Saturn	-24190-05-15 21:50 J	-7113839.81	-7113839.59	-7113839.36	0.0277	0.0115

Uranus	-24190-05-22 21:35 J	-7113832.79	-7113832.60	-7113832.37	0.0140	0.0084
Jupiter	-24181-04-18 04:47 J	-7110579.50	-7110579.30	-7110579.09	0.0537	0.0207
Jupiter	-24169-04-22 16:47 J	-7106191.96	-7106191.80	-7106191.63	0.0536	0.0380
Pluto	-24162-01-28 14:38 J	-7103720.14	-7103719.89	-7103719.64	0.0077	0.0008
Neptune	-24162-04-23 10:19 J	-7103635.25	-7103635.07	-7103634.85	0.0089	0.0051
Neptune	-24161-04-24 17:16 J	-7103268.04	-7103267.78	-7103267.52	0.0089	0.0008
Neptune	-24160-04-27 09:07 J	-7102900.34	-7102900.12	-7102899.88	0.0089	0.0037
Saturn	-24160-05-22 17:45 J	-7102874.89	-7102874.76	-7102874.60	0.0276	0.0222
Neptune	-24159-04-29 12:43 J	-7102533.07	-7102532.97	-7102532.83	0.0089	0.0079
Uranus	-24153-11-14 11:16 J	-7100142.23	-7100142.03	-7100141.82	0.0139	0.0085
Uranus	-24152-11-19 14:09 J	-7099772.17	-7099771.91	-7099771.65	0.0139	0.0014
Uranus	-24151-11-24 00:57 J	-7099402.60	-7099402.46	-7099402.27	0.0138	0.0107
Saturn	-24145-11-18 09:07 J	-7097216.37	-7097216.12	-7097215.87	0.0284	0.0047
Jupiter	-24140-10-16 12:28 J	-7095423.18	-7095422.98	-7095422.77	0.0490	0.0204
Saturn	-24131-05-17 08:09 J	-7092288.40	-7092288.16	-7092287.92	0.0277	0.0038
Mars	-24130-03-30 15:07 J	-7091971.04	-7091970.87	-7091970.70	0.1633	0.0378
Jupiter	-24128-10-20 23:31 J	-7091035.74	-7091035.52	-7091035.29	0.0490	0.0199
Saturn	-24116-11-12 20:52 J	-7086629.73	-7086629.63	-7086629.50	0.0282	0.0249
Uranus	-24108-05-14 03:21 J	-7083890.51	-7083890.36	-7083890.17	0.0139	0.0105
Uranus	-24107-05-18 13:40 J	-7083521.17	-7083520.93	-7083520.68	0.0140	0.0005
Uranus	-24106-05-23 06:28 J	-7083151.44	-7083151.23	-7083151.00	0.0140	0.0073
Jupiter	-24098-04-17 15:21 J	-7080265.03	-7080264.86	-7080264.68	0.0536	0.0345
Jupiter	-24086-04-22 20:52 J	-7075876.82	-7075876.63	-7075876.44	0.0537	0.0275
Saturn	-24086-11-20 19:55 J	-7075664.88	-7075664.67	-7075664.44	0.0285	0.0125
Neptune	-24081-10-20 20:23 J	-7073868.77	-7073868.65	-7073868.49	0.0088	0.0074
Neptune	-24080-10-23 05:02 J	-7073501.52	-7073501.29	-7073501.03	0.0088	0.0036
Neptune	-24079-10-25 23:45 J	-7073133.75	-7073133.51	-7073133.24	0.0088	0.0014
Neptune	-24078-10-28 05:16 J	-7072766.47	-7072766.28	-7072766.04	0.0088	0.0050
Saturn	-24072-05-18 20:52 J	-7070736.86	-7070736.63	-7070736.39	0.0276	0.0033
Uranus	-24069-11-14 23:31 J	-7069460.74	-7069460.52	-7069460.30	0.0139	0.0068

Uranus	-24068-11-20 01:55 J	-7069090.67	-7069090.42	-7069090.16	0.0139	0.0019
Uranus	-24067-11-24 12:57 J	-7068721.11	-7068720.96	-7068720.79	0.0138	0.0108
Jupiter	-24057-10-15 19:11 J	-7065107.90	-7065107.70	-7065107.49	0.0490	0.0277
Saturn	-24057-11-14 01:40 J	-7065078.63	-7065078.43	-7065078.23	0.0283	0.0179
Mars	-24051-04-01 09:07 J	-7063114.25	-7063114.12	-7063113.98	0.1632	0.1065
Jupiter	-24045-10-20 01:55 J	-7060720.64	-7060720.42	-7060720.19	0.0491	0.0135
Saturn	-24043-05-13 22:47 J	-7060149.70	-7060149.55	-7060149.41	0.0278	0.0224
Saturn	-24027-11-22 06:57 J	-7054113.38	-7054113.21	-7054113.03	0.0285	0.0195
Uranus	-24024-05-14 10:33 J	-7053209.24	-7053209.06	-7053208.86	0.0139	0.0094
Uranus	-24023-05-18 21:50 J	-7052839.83	-7052839.59	-7052839.34	0.0140	0.0015
Uranus	-24022-05-23 13:26 J	-7052470.13	-7052469.94	-7052469.73	0.0140	0.0089
Jupiter	-24015-04-17 01:26 J	-7049949.57	-7049949.44	-7049949.30	0.0537	0.0426
Saturn	-24013-05-20 06:57 J	-7049185.43	-7049185.21	-7049184.98	0.0276	0.0096
Jupiter	-24003-04-22 02:09 J	-7045561.62	-7045561.41	-7045561.18	0.0537	0.0207
Pluto	-24003-07-26 09:07 J	-7045466.24	-7045466.12	-7045465.93	0.0068	0.0054
Pluto	-24002-07-27 18:57 J	-7045099.88	-7045099.71	-7045099.48	0.0068	0.0042

24TH MILLENNIUM BCE

This is a list of transits of Moon in the 24th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Neptune	-23998-04-22 16:19 J	-7043734.96	-7043734.82	-7043734.64	0.0089	0.0069
Saturn	-23998-11-15 23:59 J	-7043527.73	-7043527.50	-7043527.27	0.0283	0.0117
Neptune	-23997-04-24 08:52 J	-7043367.35	-7043367.13	-7043366.89	0.0089	0.0036

Neptune	-23996-04-26 12:28 J	-7043000.22	-7042999.98	-7042999.73	0.0089	0.0017
Neptune	-23995-04-29 05:31 J	-7042632.46	-7042632.27	-7042632.05	0.0089	0.0051
Uranus	-23985-11-15 10:19 J	-7038779.27	-7038779.07	-7038778.84	0.0139	0.0073
Saturn	-23984-05-14 23:59 J	-7038598.70	-7038598.50	-7038598.31	0.0278	0.0167
Uranus	-23984-11-20 13:11 J	-7038409.20	-7038408.95	-7038408.69	0.0139	0.0027
Uranus	-23983-11-25 00:28 J	-7038039.60	-7038039.48	-7038039.33	0.0138	0.0118
Jupiter	-23974-10-15 22:47 J	-7034792.71	-7034792.55	-7034792.37	0.0491	0.0335
Saturn	-23968-11-23 10:04 J	-7032562.19	-7032562.08	-7032561.97	0.0285	0.0255
Jupiter	-23962-10-20 17:31 J	-7030405.00	-7030404.77	-7030404.54	0.0490	0.0072
Saturn	-23954-05-22 08:23 J	-7027634.35	-7027634.15	-7027633.93	0.0276	0.0152
Uranus	-23940-05-14 19:40 J	-7022527.85	-7022527.68	-7022527.48	0.0139	0.0096
Uranus	-23939-05-19 07:55 J	-7022158.42	-7022158.17	-7022157.93	0.0140	0.0002
Saturn	-23939-11-16 22:47 J	-7021976.78	-7021976.55	-7021976.31	0.0283	0.0065
Uranus	-23938-05-23 21:35 J	-7021788.80	-7021788.60	-7021788.37	0.0140	0.0078
Jupiter	-23932-04-16 03:07 J	-7019634.45	-7019634.37	-7019634.28	0.0536	0.0499
Mars	-23925-03-28 15:07 J	-7017096.02	-7017095.87	-7017095.71	0.1636	0.1001
Saturn	-23925-05-16 03:35 J	-7017047.56	-7017047.35	-7017047.13	0.0278	0.0111
Jupiter	-23920-04-21 01:26 J	-7015246.65	-7015246.44	-7015246.22	0.0536	0.0115
Pluto	-23916-01-30 07:40 J	-7013866.39	-7013866.18	-7013865.92	0.0076	0.0032
Neptune	-23916-10-22 16:47 J	-7013600.99	-7013600.80	-7013600.59	0.0088	0.0054
Neptune	-23915-10-24 22:33 J	-7013233.81	-7013233.56	-7013233.30	0.0088	0.0017
Neptune	-23914-10-27 18:14 J	-7012865.97	-7012865.74	-7012865.48	0.0088	0.0033
Neptune	-23913-10-29 01:26 J	-7012498.59	-7012498.44	-7012498.28	0.0088	0.0070
Uranus	-23901-11-15 20:38 J	-7008097.87	-7008097.64	-7008097.41	0.0139	0.0057
Uranus	-23900-11-20 22:47 J	-7007727.81	-7007727.55	-7007727.30	0.0139	0.0028
Uranus	-23899-11-25 09:50 J	-7007358.20	-7007358.09	-7007357.94	0.0138	0.0119
Saturn	-23895-05-23 04:33 J	-7006083.47	-7006083.31	-7006083.14	0.0275	0.0202
Jupiter	-23891-10-15 15:21 J	-7004477.00	-7004476.86	-7004476.71	0.0490	0.0391
Saturn	-23880-11-17 23:45 J	-7000425.75	-7000425.51	-7000425.27	0.0283	0.0017
Jupiter	-23879-10-19 20:38 J	-7000089.88	-7000089.64	-7000089.39	0.0490	0.0018

Jupiter	-23867-10-24 13:26 J	-6995701.99	-6995701.94	-6995701.87	0.0491	0.0471
Saturn	-23866-05-18 06:43 J	-6995496.45	-6995496.22	-6995495.99	0.0278	0.0063
Uranus	-23856-05-15 06:14 J	-6991846.44	-6991846.24	-6991846.04	0.0139	0.0085
Uranus	-23855-05-19 19:26 J	-6991476.94	-6991476.69	-6991476.45	0.0139	0.0006
Uranus	-23854-05-24 08:09 J	-6991107.33	-6991107.16	-6991106.96	0.0140	0.0096
Mars	-23846-04-01 00:14 J	-6988238.69	-6988238.49	-6988238.30	0.1635	0.0019
Mars	-23838-09-28 17:31 J	-6985135.96	-6985135.77	-6985135.58	0.1885	0.0799
Jupiter	-23837-04-20 14:38 J	-6984931.12	-6984930.89	-6984930.65	0.0536	0.0052
Saturn	-23836-05-24 03:50 J	-6984532.42	-6984532.34	-6984532.24	0.0275	0.0253
Neptune	-23833-04-23 11:02 J	-6983467.23	-6983467.04	-6983466.84	0.0089	0.0055
Neptune	-23832-04-26 04:04 J	-6983099.58	-6983099.33	-6983099.07	0.0089	0.0011
Neptune	-23831-04-28 08:38 J	-6982732.35	-6982732.14	-6982731.90	0.0089	0.0034
Neptune	-23830-04-30 22:33 J	-6982364.67	-6982364.56	-6982364.40	0.0089	0.0076
Saturn	-23821-11-18 22:33 J	-6978874.81	-6978874.56	-6978874.31	0.0283	0.0031
Uranus	-23817-11-16 07:40 J	-6977416.40	-6977416.18	-6977415.95	0.0140	0.0063
Uranus	-23816-11-21 09:21 J	-6977046.35	-6977046.11	-6977045.85	0.0139	0.0038
Uranus	-23815-11-25 21:35 J	-6976676.68	-6976676.60	-6976676.48	0.0138	0.0127
Jupiter	-23808-10-14 19:11 J	-6974161.79	-6974161.70	-6974161.58	0.0491	0.0441
Saturn	-23807-05-19 04:19 J	-6973945.56	-6973945.32	-6973945.07	0.0278	0.0017
Jupiter	-23796-10-19 12:57 J	-6969774.19	-6969773.96	-6969773.73	0.0491	0.0028
Saturn	-23792-11-12 20:38 J	-6968288.72	-6968288.64	-6968288.56	0.0281	0.0266
Jupiter	-23784-10-23 22:19 J	-6965386.68	-6965386.57	-6965386.44	0.0491	0.0431
Uranus	-23772-05-15 18:57 J	-6961164.90	-6961164.71	-6961164.49	0.0139	0.0083
Uranus	-23771-05-20 09:07 J	-6960795.36	-6960795.12	-6960794.88	0.0139	0.0013
Uranus	-23770-05-24 20:38 J	-6960425.82	-6960425.64	-6960425.42	0.0140	0.0091
Mars	-23767-04-03 01:11 J	-6959381.51	-6959381.45	-6959381.39	0.1633	0.1517
Saturn	-23762-11-20 15:21 J	-6957324.10	-6957323.86	-6957323.61	0.0283	0.0075
Pluto	-23757-07-27 11:59 J	-6955613.21	-6955613.00	-6955612.74	0.0068	0.0034
Pluto	-23756-07-29 07:55 J	-6955246.25	-6955246.17	-6955246.07	0.0068	0.0064
Jupiter	-23754-04-20 17:16 J	-6954616.00	-6954615.78	-6954615.55	0.0536	0.0013

Neptune	-23752-10-21 15:07 J	-6953700.97	-6953700.87	-6953700.73	0.0088	0.0078
Neptune	-23751-10-24 10:33 J	-6953333.28	-6953333.06	-6953332.81	0.0088	0.0041
Neptune	-23750-10-26 17:59 J	-6952966.00	-6952965.75	-6952965.49	0.0088	0.0009
Neptune	-23749-10-28 09:35 J	-6952598.31	-6952598.10	-6952597.85	0.0088	0.0045
Saturn	-23748-05-19 21:07 J	-6952394.87	-6952394.62	-6952394.37	0.0278	0.0026
Saturn	-23733-11-13 21:07 J	-6946737.76	-6946737.62	-6946737.46	0.0281	0.0220
Uranus	-23733-11-16 21:07 J	-6946734.85	-6946734.62	-6946734.37	0.0140	0.0044
Uranus	-23732-11-21 22:04 J	-6946364.83	-6946364.58	-6946364.32	0.0139	0.0040
Uranus	-23731-11-26 10:47 J	-6945995.13	-6945995.05	-6945994.97	0.0138	0.0131
Jupiter	-23725-10-14 11:59 J	-6943846.00	-6943846.00	-6943845.98	0.0491	0.0490
Saturn	-23719-05-14 16:04 J	-6941807.92	-6941807.83	-6941807.72	0.0279	0.0249
Jupiter	-23713-10-18 21:21 J	-6939458.86	-6939458.61	-6939458.37	0.0491	0.0073
Saturn	-23703-11-21 08:52 J	-6935773.35	-6935773.13	-6935772.90	0.0283	0.0124
Jupiter	-23701-10-23 08:23 J	-6935071.28	-6935071.15	-6935071.01	0.0491	0.0398
Saturn	-23689-05-20 15:35 J	-6930844.09	-6930843.85	-6930843.62	0.0278	0.0071
Uranus	-23688-05-16 06:57 J	-6930483.41	-6930483.21	-6930482.97	0.0139	0.0072
Uranus	-23687-05-20 22:19 J	-6930113.81	-6930113.57	-6930113.33	0.0139	0.0009
Uranus	-23686-05-25 09:07 J	-6929744.26	-6929744.12	-6929743.94	0.0140	0.0110
Saturn	-23674-11-15 23:59 J	-6925186.69	-6925186.50	-6925186.30	0.0281	0.0167
Jupiter	-23671-04-20 05:31 J	-6924300.50	-6924300.27	-6924300.05	0.0536	0.0095
Pluto	-23670-02-01 14:38 J	-6924013.03	-6924012.89	-6924012.68	0.0076	0.0058
Neptune	-23669-04-23 01:11 J	-6923566.57	-6923566.45	-6923566.28	0.0089	0.0074
Neptune	-23668-04-25 06:57 J	-6923199.42	-6923199.21	-6923198.97	0.0089	0.0040
Neptune	-23667-04-27 20:38 J	-6922831.90	-6922831.64	-6922831.38	0.0089	0.0013
Neptune	-23666-04-30 05:59 J	-6922464.45	-6922464.25	-6922464.03	0.0089	0.0047
Saturn	-23660-05-15 17:31 J	-6920256.93	-6920256.77	-6920256.59	0.0279	0.0199
Jupiter	-23659-04-25 00:28 J	-6919912.61	-6919912.48	-6919912.35	0.0536	0.0441
Uranus	-23650-11-13 18:28 J	-6916422.83	-6916422.73	-6916422.60	0.0140	0.0126
Uranus	-23649-11-17 11:59 J	-6916053.23	-6916053.00	-6916052.76	0.0140	0.0046
Uranus	-23648-11-22 12:14 J	-6915683.23	-6915682.99	-6915682.74	0.0139	0.0053

Saturn	-23644-11-22 11:31 J	-6914222.20	-6914222.02	-6914221.83	0.0283	0.0178
Mars	-23641-03-29 17:31 J	-6913363.93	-6913363.77	-6913363.61	0.1638	0.0693
Saturn	-23630-05-22 17:59 J	-6909292.96	-6909292.75	-6909292.54	0.0278	0.0124
Jupiter	-23630-10-19 03:21 J	-6909143.58	-6909143.36	-6909143.14	0.0491	0.0134
Jupiter	-23618-10-23 20:09 J	-6904755.83	-6904755.66	-6904755.49	0.0491	0.0346
Saturn	-23615-11-17 00:28 J	-6903635.71	-6903635.48	-6903635.23	0.0282	0.0110
Uranus	-23604-05-16 19:55 J	-6899801.89	-6899801.67	-6899801.44	0.0139	0.0068
Uranus	-23603-05-21 11:31 J	-6899432.25	-6899432.02	-6899431.78	0.0139	0.0027
Uranus	-23602-05-25 21:50 J	-6899062.76	-6899062.59	-6899062.41	0.0140	0.0103
Saturn	-23601-05-16 14:52 J	-6898706.09	-6898705.88	-6898705.66	0.0279	0.0144
Jupiter	-23588-04-19 06:28 J	-6893985.45	-6893985.23	-6893985.00	0.0536	0.0172
Neptune	-23587-10-23 09:35 J	-6893433.25	-6893433.10	-6893432.89	0.0088	0.0061
Neptune	-23586-10-26 01:11 J	-6893065.71	-6893065.45	-6893065.18	0.0088	0.0023
Neptune	-23585-10-27 14:09 J	-6892698.14	-6892697.91	-6892697.65	0.0088	0.0026
Saturn	-23585-11-23 21:07 J	-6892670.75	-6892670.62	-6892670.49	0.0284	0.0240
Neptune	-23584-10-29 23:45 J	-6892330.67	-6892330.51	-6892330.30	0.0088	0.0064
Jupiter	-23576-04-24 11:16 J	-6889597.19	-6889597.03	-6889596.87	0.0535	0.0365
Saturn	-23571-05-23 23:31 J	-6887741.69	-6887741.52	-6887741.33	0.0278	0.0183
Uranus	-23566-11-14 09:21 J	-6885741.18	-6885741.11	-6885741.00	0.0140	0.0131
Uranus	-23565-11-18 03:21 J	-6885371.60	-6885371.36	-6885371.10	0.0140	0.0026
Uranus	-23564-11-23 02:23 J	-6885001.63	-6885001.40	-6885001.14	0.0139	0.0057
Mars	-23562-04-01 19:55 J	-6884506.86	-6884506.67	-6884506.48	0.1637	0.0312
Saturn	-23556-11-18 03:07 J	-6882084.63	-6882084.37	-6882084.12	0.0282	0.0044
Mars	-23554-09-26 23:45 J	-6881406.67	-6881406.51	-6881406.35	0.1881	0.1232
Jupiter	-23547-10-18 15:35 J	-6878828.07	-6878827.85	-6878827.62	0.0491	0.0191
Saturn	-23542-05-18 15:35 J	-6877155.08	-6877154.85	-6877154.62	0.0279	0.0081
Jupiter	-23535-10-22 19:11 J	-6874440.88	-6874440.70	-6874440.50	0.0491	0.0285
Uranus	-23520-05-17 05:59 J	-6869120.48	-6869120.25	-6869120.01	0.0139	0.0060
Uranus	-23519-05-21 22:47 J	-6868750.79	-6868750.55	-6868750.31	0.0139	0.0021
Uranus	-23518-05-26 07:40 J	-6868381.29	-6868381.18	-6868381.03	0.0140	0.0121

Saturn	-23512-05-25 02:38 J	-6866190.49	-6866190.39	-6866190.27	0.0278	0.0249
Pluto	-23511-07-29 19:11 J	-6865759.94	-6865759.70	-6865759.44	0.0068	0.0009
Jupiter	-23505-04-18 14:23 J	-6863670.08	-6863669.90	-6863669.70	0.0535	0.0262
Neptune	-23504-04-24 15:50 J	-6863299.00	-6863298.84	-6863298.62	0.0089	0.0062
Neptune	-23503-04-27 03:35 J	-6862931.59	-6862931.35	-6862931.11	0.0089	0.0016
Neptune	-23502-04-29 11:02 J	-6862564.28	-6862564.04	-6862563.78	0.0089	0.0027
Neptune	-23501-05-01 02:38 J	-6862196.53	-6862196.39	-6862196.24	0.0089	0.0072
Saturn	-23497-11-19 12:57 J	-6860533.20	-6860532.96	-6860532.71	0.0282	0.0035
Jupiter	-23493-04-23 10:33 J	-6859282.27	-6859282.06	-6859281.85	0.0535	0.0242
Saturn	-23483-05-19 23:59 J	-6855603.73	-6855603.50	-6855603.26	0.0279	0.0011
Uranus	-23482-11-14 22:19 J	-6855059.71	-6855059.57	-6855059.38	0.0140	0.0109
Uranus	-23481-11-18 17:45 J	-6854690.00	-6854689.76	-6854689.51	0.0140	0.0029
Uranus	-23480-11-23 16:04 J	-6854320.04	-6854319.83	-6854319.58	0.0139	0.0070
Saturn	-23468-11-14 03:21 J	-6849946.47	-6849946.36	-6849946.26	0.0280	0.0255
Jupiter	-23464-10-17 12:14 J	-6848513.18	-6848512.99	-6848512.78	0.0491	0.0268
Jupiter	-23452-10-22 03:50 J	-6844125.55	-6844125.34	-6844125.12	0.0491	0.0200
Saturn	-23438-11-22 06:28 J	-6838981.44	-6838981.23	-6838981.00	0.0282	0.0122
Uranus	-23436-05-17 16:33 J	-6838439.03	-6838438.81	-6838438.57	0.0139	0.0057
Uranus	-23435-05-22 09:35 J	-6838069.33	-6838069.10	-6838068.85	0.0139	0.0036
Uranus	-23434-05-26 17:45 J	-6837699.89	-6837699.76	-6837699.59	0.0140	0.0113
Pluto	-23425-02-02 04:04 J	-6834526.53	-6834526.33	-6834526.10	0.0077	0.0040
Saturn	-23424-05-21 13:55 J	-6834052.14	-6834051.92	-6834051.69	0.0279	0.0068
Neptune	-23423-10-22 14:38 J	-6833532.94	-6833532.89	-6833532.78	0.0088	0.0084
Jupiter	-23422-04-18 09:21 J	-6833355.27	-6833355.11	-6833354.95	0.0535	0.0392
Neptune	-23422-10-25 05:02 J	-6833165.49	-6833165.29	-6833165.07	0.0088	0.0049
Neptune	-23421-10-26 14:09 J	-6832798.18	-6832797.91	-6832797.64	0.0088	0.0002
Neptune	-23420-10-29 08:23 J	-6832430.38	-6832430.15	-6832429.91	0.0088	0.0037
Neptune	-23419-10-31 14:09 J	-6832062.91	-6832062.91	-6832062.87	0.0088	0.0088
Jupiter	-23410-04-23 06:57 J	-6828967.42	-6828967.21	-6828966.99	0.0536	0.0131
Saturn	-23409-11-15 16:04 J	-6828395.04	-6828394.83	-6828394.63	0.0281	0.0168

Uranus	-23398-11-15 10:33 J	-6824378.19	-6824378.06	-6824377.89	0.0140	0.0117
Uranus	-23397-11-19 06:43 J	-6824008.47	-6824008.22	-6824007.97	0.0140	0.0011
Uranus	-23396-11-24 03:50 J	-6823638.55	-6823638.34	-6823638.09	0.0139	0.0072
Saturn	-23395-05-16 04:04 J	-6823465.48	-6823465.33	-6823465.16	0.0281	0.0212
Jupiter	-23381-10-16 18:57 J	-6818197.86	-6818197.71	-6818197.55	0.0491	0.0363
Saturn	-23379-11-24 02:38 J	-6817429.54	-6817429.39	-6817429.22	0.0283	0.0212
Jupiter	-23369-10-20 23:59 J	-6813810.73	-6813810.50	-6813810.26	0.0491	0.0120
Saturn	-23365-05-23 03:50 J	-6812500.53	-6812500.34	-6812500.12	0.0279	0.0148
Mars	-23357-03-31 08:09 J	-6809631.33	-6809631.16	-6809630.98	0.1640	0.0211
Uranus	-23353-05-13 22:19 J	-6808126.61	-6808126.57	-6808126.50	0.0138	0.0134
Uranus	-23352-05-18 03:35 J	-6807757.58	-6807757.35	-6807757.11	0.0139	0.0050
Uranus	-23351-05-22 21:35 J	-6807387.84	-6807387.60	-6807387.36	0.0139	0.0032
Uranus	-23350-05-27 05:02 J	-6807018.37	-6807018.29	-6807018.19	0.0140	0.0130
Saturn	-23350-11-18 06:14 J	-6806843.48	-6806843.24	-6806842.99	0.0281	0.0079
Neptune	-23340-04-23 23:02 J	-6803398.62	-6803398.54	-6803398.42	0.0089	0.0082
Jupiter	-23339-04-17 08:23 J	-6803040.23	-6803040.15	-6803040.07	0.0536	0.0499
Neptune	-23339-04-26 05:31 J	-6803031.47	-6803031.27	-6803031.02	0.0089	0.0047
Neptune	-23338-04-28 22:04 J	-6802663.83	-6802663.58	-6802663.33	0.0089	0.0006
Neptune	-23337-04-30 01:40 J	-6802296.64	-6802296.43	-6802296.18	0.0089	0.0041
Saturn	-23336-05-17 15:35 J	-6801914.06	-6801913.85	-6801913.63	0.0280	0.0129
Jupiter	-23327-04-22 13:40 J	-6798652.16	-6798651.93	-6798651.70	0.0535	0.0025
Uranus	-23314-11-15 19:55 J	-6793696.84	-6793696.67	-6793696.45	0.0140	0.0098
Uranus	-23313-11-19 17:59 J	-6793327.00	-6793326.75	-6793326.50	0.0140	0.0018
Uranus	-23312-11-24 14:38 J	-6792957.08	-6792956.89	-6792956.65	0.0139	0.0083
Saturn	-23306-05-25 13:40 J	-6790949.06	-6790948.93	-6790948.78	0.0278	0.0229
Jupiter	-23298-10-16 14:38 J	-6787882.99	-6787882.89	-6787882.78	0.0491	0.0439
Saturn	-23291-11-20 01:11 J	-6785291.69	-6785291.45	-6785291.21	0.0282	0.0011
Jupiter	-23286-10-21 06:43 J	-6783495.45	-6783495.22	-6783494.99	0.0491	0.0042
Mars	-23278-04-03 04:04 J	-6780774.49	-6780774.33	-6780774.17	0.1638	0.0718
Saturn	-23277-05-19 08:23 J	-6780362.38	-6780362.15	-6780361.92	0.0280	0.0044

Jupiter	-23274-10-25 12:57 J	-6779108.01	-6779107.96	-6779107.89	0.0491	0.0475
Uranus	-23269-05-14 13:26 J	-6777445.00	-6777444.94	-6777444.84	0.0138	0.0130
Uranus	-23268-05-18 18:14 J	-6777075.97	-6777075.74	-6777075.49	0.0139	0.0043
Uranus	-23267-05-23 12:14 J	-6776706.21	-6776705.99	-6776705.75	0.0139	0.0049
Uranus	-23266-05-27 18:57 J	-6776336.80	-6776336.71	-6776336.58	0.0140	0.0126
Pluto	-23265-07-31 06:57 J	-6775906.45	-6775906.21	-6775905.95	0.0068	0.0009
Saturn	-23262-11-14 16:19 J	-6774704.89	-6774704.82	-6774704.74	0.0280	0.0266
Neptune	-23258-10-24 04:33 J	-6773265.45	-6773265.31	-6773265.12	0.0088	0.0069
Neptune	-23257-10-25 23:45 J	-6772897.74	-6772897.51	-6772897.25	0.0088	0.0029
Neptune	-23256-10-28 05:16 J	-6772530.53	-6772530.28	-6772530.01	0.0088	0.0017
Neptune	-23255-10-31 00:43 J	-6772162.65	-6772162.47	-6772162.25	0.0088	0.0056
Jupiter	-23244-04-20 23:16 J	-6768337.75	-6768337.53	-6768337.31	0.0535	0.0122
Jupiter	-23232-04-26 05:16 J	-6763949.40	-6763949.28	-6763949.16	0.0536	0.0450
Saturn	-23232-11-21 20:09 J	-6763739.88	-6763739.66	-6763739.43	0.0282	0.0097
Uranus	-23230-11-16 08:52 J	-6763015.30	-6763015.13	-6763014.94	0.0140	0.0104
Uranus	-23229-11-20 07:26 J	-6762645.44	-6762645.19	-6762644.94	0.0140	0.0002
Uranus	-23228-11-25 03:21 J	-6762275.57	-6762275.36	-6762275.14	0.0139	0.0083
Saturn	-23218-05-22 00:28 J	-6758810.71	-6758810.48	-6758810.24	0.0279	0.0039
Jupiter	-23203-10-20 05:45 J	-6753180.51	-6753180.26	-6753180.02	0.0491	0.0042
Saturn	-23203-11-15 23:59 J	-6753153.68	-6753153.50	-6753153.31	0.0280	0.0191
Mars	-23191-09-29 11:45 J	-6748818.19	-6748818.01	-6748817.82	0.1879	0.0732
Jupiter	-23191-10-24 15:50 J	-6748792.96	-6748792.84	-6748792.71	0.0491	0.0406
Saturn	-23189-05-15 19:55 J	-6748223.81	-6748223.67	-6748223.52	0.0281	0.0228
Uranus	-23185-05-15 04:33 J	-6746763.44	-6746763.31	-6746763.18	0.0138	0.0116
Uranus	-23184-05-19 08:38 J	-6746394.37	-6746394.14	-6746393.88	0.0139	0.0034
Uranus	-23183-05-24 03:50 J	-6746024.57	-6746024.34	-6746024.11	0.0139	0.0048
Pluto	-23179-02-03 10:47 J	-6744673.31	-6744673.05	-6744672.79	0.0077	0.0015
Neptune	-23175-04-25 16:33 J	-6743130.93	-6743130.81	-6743130.63	0.0089	0.0072
Neptune	-23174-04-27 20:52 J	-6742763.87	-6742763.63	-6742763.38	0.0089	0.0024
Neptune	-23173-04-29 14:23 J	-6742396.15	-6742395.90	-6742395.64	0.0089	0.0017

Saturn	-23173-11-23 08:52 J	-6742188.32	-6742188.13	-6742187.93	0.0283	0.0176
Neptune	-23172-05-01 19:11 J	-6742028.86	-6742028.70	-6742028.52	0.0089	0.0064
Jupiter	-23161-04-20 07:55 J	-6738022.37	-6738022.17	-6738021.96	0.0536	0.0225
Saturn	-23159-05-23 10:19 J	-6737259.29	-6737259.07	-6737258.84	0.0278	0.0117
Mars	-23152-03-30 03:07 J	-6734756.42	-6734756.37	-6734756.33	0.1644	0.1590
Jupiter	-23149-04-25 03:36 J	-6733634.52	-6733634.35	-6733634.17	0.0536	0.0360
Uranus	-23146-11-16 21:50 J	-6732333.79	-6732333.59	-6732333.36	0.0140	0.0082
Uranus	-23145-11-20 21:50 J	-6731963.84	-6731963.59	-6731963.34	0.0140	0.0002
Saturn	-23144-11-17 06:00 J	-6731602.46	-6731602.25	-6731602.02	0.0281	0.0121
Uranus	-23144-11-25 17:02 J	-6731593.96	-6731593.79	-6731593.58	0.0139	0.0099
Saturn	-23130-05-18 05:02 J	-6726672.48	-6726672.29	-6726672.09	0.0281	0.0155
Jupiter	-23120-10-19 10:19 J	-6722865.30	-6722865.07	-6722864.85	0.0491	0.0097
Saturn	-23114-11-25 12:57 J	-6720637.08	-6720636.96	-6720636.82	0.0283	0.0244
Jupiter	-23108-10-24 02:38 J	-6718477.56	-6718477.39	-6718477.21	0.0491	0.0337
Uranus	-23101-05-15 20:23 J	-6716081.78	-6716081.65	-6716081.49	0.0138	0.0112
Uranus	-23100-05-20 00:57 J	-6715712.71	-6715712.46	-6715712.21	0.0139	0.0025
Saturn	-23100-05-24 13:40 J	-6715708.10	-6715707.93	-6715707.73	0.0278	0.0188
Uranus	-23099-05-24 19:40 J	-6715342.90	-6715342.68	-6715342.46	0.0139	0.0067
Neptune	-23093-10-24 18:57 J	-6712997.88	-6712997.71	-6712997.49	0.0088	0.0058
Neptune	-23092-10-27 14:52 J	-6712630.15	-6712629.88	-6712629.61	0.0088	0.0006
Neptune	-23091-10-29 21:50 J	-6712262.81	-6712262.59	-6712262.33	0.0088	0.0029
Neptune	-23090-11-01 14:09 J	-6711895.01	-6711894.91	-6711894.78	0.0088	0.0079
Saturn	-23085-11-18 12:43 J	-6710051.20	-6710050.97	-6710050.73	0.0281	0.0063
Jupiter	-23078-04-20 02:52 J	-6707707.57	-6707707.38	-6707707.20	0.0535	0.0325
Mars	-23073-04-01 13:40 J	-6705899.13	-6705898.93	-6705898.73	0.1642	0.0133
Saturn	-23071-05-19 14:52 J	-6705121.10	-6705120.88	-6705120.66	0.0280	0.0088
Jupiter	-23066-04-25 06:00 J	-6703319.44	-6703319.25	-6703319.05	0.0535	0.0254
Uranus	-23062-11-17 14:09 J	-6701652.11	-6701651.91	-6701651.68	0.0140	0.0085
Uranus	-23061-11-21 14:38 J	-6701282.14	-6701281.89	-6701281.64	0.0140	0.0021
Uranus	-23060-11-26 08:38 J	-6700912.31	-6700912.14	-6700911.94	0.0139	0.0100

Saturn	-23041-05-25 16:33 J	-6694156.90	-6694156.81	-6694156.70	0.0277	0.0251
Jupiter	-23037-10-18 22:19 J	-6692549.80	-6692549.57	-6692549.33	0.0491	0.0150
Saturn	-23026-11-20 16:33 J	-6688500.05	-6688499.81	-6688499.56	0.0281	0.0014
Jupiter	-23025-10-23 03:21 J	-6688162.55	-6688162.36	-6688162.16	0.0491	0.0276
Pluto	-23019-08-02 14:23 J	-6686053.14	-6686052.90	-6686052.65	0.0068	0.0026
Uranus	-23017-05-16 10:19 J	-6685400.22	-6685400.07	-6685399.88	0.0138	0.0099
Uranus	-23016-05-20 14:38 J	-6685031.13	-6685030.89	-6685030.64	0.0139	0.0016
Uranus	-23015-05-25 09:36 J	-6684661.31	-6684661.10	-6684660.87	0.0139	0.0065
Saturn	-23012-05-20 20:09 J	-6683569.90	-6683569.66	-6683569.42	0.0280	0.0029
Neptune	-23010-04-27 07:55 J	-6682863.35	-6682863.17	-6682862.95	0.0089	0.0056
Neptune	-23009-04-28 13:26 J	-6682496.18	-6682495.94	-6682495.69	0.0089	0.0005
Neptune	-23008-05-01 03:07 J	-6682128.61	-6682128.37	-6682128.12	0.0089	0.0031
Neptune	-23007-05-03 12:28 J	-6681761.04	-6681760.98	-6681760.86	0.0089	0.0083

23RD MILLENNIUM BCE

This is a list of transits of Moon in the 23rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-22995-04-19 10:33 J	-6677392.19	-6677392.06	-6677391.92	0.0535	0.0416		
Mars	-22994-04-04 18:43 J	-6677041.85	-6677041.72	-6677041.60	0.1640	0.1166		
Jupiter	-22983-04-24 11:31 J	-6673004.24	-6673004.02	-6673003.79	0.0536	0.0182		
Uranus	-22978-11-18 04:19 J	-6670970.55	-6670970.32	-6670970.07	0.0140	0.0062		
Uranus	-22977-11-22 05:45 J	-6670600.51	-6670600.26	-6670600.01	0.0140	0.0017		
Uranus	-22976-11-26 23:31 J	-6670230.65	-6670230.52	-6670230.36	0.0139	0.0117		

Saturn	-22967-11-21 11:16 J	-6666949.28	-6666949.03	-6666948.77	0.0281	0.0030
Jupiter	-22954-10-19 01:11 J	-6662234.66	-6662234.45	-6662234.23	0.0492	0.0199
Saturn	-22953-05-21 17:16 J	-6662019.03	-6662018.78	-6662018.53	0.0280	0.0028
Jupiter	-22942-10-23 21:21 J	-6657846.82	-6657846.61	-6657846.40	0.0492	0.0225
Saturn	-22938-11-15 16:04 J	-6656362.89	-6656362.83	-6656362.74	0.0279	0.0264
Pluto	-22933-02-05 14:38 J	-6654820.14	-6654819.89	-6654819.62	0.0077	0.0014
Uranus	-22933-05-16 23:45 J	-6654718.67	-6654718.51	-6654718.32	0.0138	0.0097
Uranus	-22932-05-21 03:50 J	-6654349.58	-6654349.34	-6654349.09	0.0139	0.0010
Uranus	-22931-05-25 22:19 J	-6653979.76	-6653979.57	-6653979.36	0.0139	0.0080
Neptune	-22929-10-24 04:48 J	-6653097.39	-6653097.30	-6653097.15	0.0088	0.0078
Neptune	-22928-10-26 13:11 J	-6652730.16	-6652729.95	-6652729.70	0.0088	0.0037
Neptune	-22927-10-29 04:04 J	-6652362.60	-6652362.33	-6652362.05	0.0088	0.0008
Neptune	-22926-10-31 16:04 J	-6651995.02	-6651994.83	-6651994.59	0.0088	0.0049
Saturn	-22924-05-16 06:14 J	-6651432.31	-6651432.24	-6651432.15	0.0281	0.0261
Jupiter	-22912-04-18 20:09 J	-6647076.77	-6647076.66	-6647076.54	0.0535	0.0466
Saturn	-22908-11-22 01:55 J	-6645398.67	-6645398.42	-6645398.17	0.0281	0.0068
Mars	-22907-09-29 06:28 J	-6645087.42	-6645087.23	-6645087.04	0.1875	0.0043
Jupiter	-22900-04-23 17:45 J	-6642688.98	-6642688.76	-6642688.55	0.0535	0.0132
Saturn	-22894-05-23 10:48 J	-6640468.28	-6640468.05	-6640467.81	0.0280	0.0082
Uranus	-22894-11-18 19:11 J	-6640288.93	-6640288.70	-6640288.46	0.0140	0.0067
Uranus	-22893-11-22 21:07 J	-6639918.86	-6639918.62	-6639918.37	0.0140	0.0039
Uranus	-22892-11-27 13:40 J	-6639549.06	-6639548.93	-6639548.77	0.0139	0.0117
Saturn	-22879-11-16 15:50 J	-6634811.97	-6634811.84	-6634811.68	0.0279	0.0222
Jupiter	-22871-10-18 20:38 J	-6631918.84	-6631918.64	-6631918.43	0.0492	0.0240
Mars	-22868-03-31 08:23 J	-6631024.26	-6631024.15	-6631024.03	0.1647	0.1260
Saturn	-22865-05-17 08:09 J	-6629881.31	-6629881.16	-6629880.99	0.0281	0.0208
Jupiter	-22859-10-23 02:23 J	-6627531.62	-6627531.40	-6627531.16	0.0491	0.0171
Uranus	-22849-05-17 11:31 J	-6624037.21	-6624037.02	-6624036.82	0.0138	0.0085
Saturn	-22849-11-22 22:33 J	-6623847.77	-6623847.56	-6623847.33	0.0281	0.0112
Uranus	-22848-05-21 15:21 J	-6623668.11	-6623667.86	-6623667.61	0.0138	0.0004

Uranus	-22847-05-26 09:36 J	-6623298.29	-6623298.10	-6623297.87	0.0139	0.0077
Neptune	-22846-04-26 07:40 J	-6622963.24	-6622963.18	-6622963.05	0.0089	0.0083
Neptune	-22845-04-27 21:07 J	-6622595.86	-6622595.62	-6622595.37	0.0089	0.0034
Neptune	-22844-04-30 07:40 J	-6622228.43	-6622228.18	-6622227.94	0.0089	0.0005
Neptune	-22843-05-02 14:52 J	-6621861.07	-6621860.88	-6621860.66	0.0089	0.0054
Saturn	-22835-05-24 09:50 J	-6618917.29	-6618917.09	-6618916.88	0.0280	0.0135
Jupiter	-22829-04-18 02:38 J	-6616761.41	-6616761.39	-6616761.37	0.0534	0.0531
Saturn	-22820-11-17 11:45 J	-6613261.19	-6613261.01	-6613260.79	0.0279	0.0176
Jupiter	-22817-04-23 06:00 J	-6612373.48	-6612373.25	-6612373.02	0.0535	0.0067
Uranus	-22810-11-19 04:48 J	-6609607.53	-6609607.30	-6609607.04	0.0141	0.0048
Uranus	-22809-11-23 08:09 J	-6609237.40	-6609237.16	-6609236.91	0.0140	0.0030
Uranus	-22808-11-28 00:28 J	-6608867.56	-6608867.48	-6608867.37	0.0139	0.0131
Saturn	-22806-05-19 03:50 J	-6608330.53	-6608330.34	-6608330.12	0.0282	0.0156
Saturn	-22790-11-25 00:14 J	-6602296.69	-6602296.49	-6602296.29	0.0281	0.0159
Mars	-22789-04-02 09:07 J	-6602167.30	-6602167.12	-6602166.93	0.1645	0.0365
Jupiter	-22788-10-18 02:09 J	-6601603.61	-6601603.41	-6601603.21	0.0492	0.0287
Saturn	-22776-05-25 10:48 J	-6597366.21	-6597366.05	-6597365.86	0.0280	0.0191
Jupiter	-22776-10-22 14:38 J	-6597216.11	-6597215.89	-6597215.66	0.0492	0.0110
Pluto	-22774-08-02 23:02 J	-6596566.59	-6596566.54	-6596566.44	0.0068	0.0065
Pluto	-22773-08-03 11:16 J	-6596200.26	-6596200.03	-6596199.79	0.0068	0.0032
Uranus	-22765-05-18 01:11 J	-6593355.64	-6593355.45	-6593355.24	0.0138	0.0084
Uranus	-22764-05-22 05:16 J	-6592986.52	-6592986.28	-6592986.03	0.0138	0.0003
Neptune	-22764-10-25 18:00 J	-6592829.92	-6592829.75	-6592829.56	0.0088	0.0066
Uranus	-22763-05-26 23:02 J	-6592616.72	-6592616.54	-6592616.34	0.0139	0.0091
Neptune	-22763-10-28 08:23 J	-6592462.39	-6592462.15	-6592461.89	0.0088	0.0015
Neptune	-22762-10-30 17:16 J	-6592095.03	-6592094.78	-6592094.51	0.0088	0.0020
Neptune	-22761-11-01 11:02 J	-6591727.16	-6591727.04	-6591726.87	0.0088	0.0072
Saturn	-22761-11-18 06:00 J	-6591710.47	-6591710.25	-6591710.01	0.0279	0.0127
Saturn	-22747-05-19 22:04 J	-6586779.80	-6586779.58	-6586779.34	0.0282	0.0100
Jupiter	-22734-04-23 08:23 J	-6582058.38	-6582058.15	-6582057.92	0.0535	0.0010

Saturn	-22731-11-26 01:55 J	-6580745.57	-6580745.42	-6580745.25	0.0281	0.0215
Uranus	-22727-11-14 23:45 J	-6579295.55	-6579295.51	-6579295.43	0.0141	0.0137
Uranus	-22726-11-19 16:04 J	-6578926.06	-6578925.83	-6578925.57	0.0141	0.0056
Uranus	-22725-11-23 19:55 J	-6578555.89	-6578555.67	-6578555.42	0.0140	0.0051
Uranus	-22724-11-28 11:02 J	-6578186.13	-6578186.04	-6578185.91	0.0140	0.0127
Saturn	-22717-05-26 09:07 J	-6575815.23	-6575815.12	-6575814.99	0.0280	0.0243
Mars	-22710-04-05 18:28 J	-6573309.80	-6573309.73	-6573309.66	0.1643	0.1526
Jupiter	-22705-10-17 11:16 J	-6571288.18	-6571288.03	-6571287.87	0.0492	0.0359
Saturn	-22702-11-20 06:00 J	-6570159.49	-6570159.25	-6570159.01	0.0279	0.0071
Jupiter	-22693-10-22 01:11 J	-6566900.69	-6566900.45	-6566900.20	0.0492	0.0054
Saturn	-22688-05-20 21:07 J	-6565228.85	-6565228.62	-6565228.38	0.0282	0.0043
Pluto	-22687-02-06 19:55 J	-6564966.91	-6564966.67	-6564966.42	0.0076	0.0019
Neptune	-22681-04-27 01:40 J	-6562695.56	-6562695.43	-6562695.24	0.0089	0.0067
Uranus	-22681-05-18 15:50 J	-6562674.05	-6562673.84	-6562673.61	0.0138	0.0069
Jupiter	-22681-10-26 09:21 J	-6562513.12	-6562513.11	-6562513.08	0.0492	0.0490
Neptune	-22680-04-29 09:36 J	-6562328.36	-6562328.10	-6562327.85	0.0089	0.0016
Uranus	-22680-05-22 20:09 J	-6562304.90	-6562304.66	-6562304.41	0.0138	0.0011
Neptune	-22679-05-02 01:11 J	-6561960.68	-6561960.45	-6561960.19	0.0089	0.0022
Uranus	-22679-05-27 13:40 J	-6561935.10	-6561934.93	-6561934.73	0.0139	0.0092
Neptune	-22678-05-04 05:16 J	-6561593.42	-6561593.28	-6561593.12	0.0089	0.0071
Saturn	-22672-11-27 02:38 J	-6559194.42	-6559194.39	-6559194.33	0.0281	0.0277
Jupiter	-22651-04-22 23:16 J	-6551742.75	-6551742.53	-6551742.30	0.0534	0.0059
Uranus	-22643-11-15 10:19 J	-6548614.07	-6548614.07	-6548614.02	0.0141	0.0141
Saturn	-22643-11-21 14:52 J	-6548608.12	-6548607.88	-6548607.64	0.0279	0.0005
Uranus	-22642-11-20 02:52 J	-6548244.63	-6548244.38	-6548244.13	0.0141	0.0036
Uranus	-22641-11-24 07:11 J	-6547874.44	-6547874.20	-6547873.95	0.0140	0.0041
Jupiter	-22639-04-27 13:40 J	-6547355.02	-6547354.93	-6547354.82	0.0534	0.0481
Saturn	-22629-05-22 03:21 J	-6543677.59	-6543677.36	-6543677.12	0.0282	0.0024
Mars	-22623-09-28 04:48 J	-6541357.46	-6541357.30	-6541357.13	0.1869	0.1250
Jupiter	-22622-10-17 19:55 J	-6540972.79	-6540972.67	-6540972.53	0.0492	0.0416

Jupiter	-22610-10-22 04:19 J	-6536585.55	-6536585.32	-6536585.08	0.0492	0.0016
Saturn	-22600-05-16 13:11 J	-6533090.99	-6533090.95	-6533090.90	0.0284	0.0278
Neptune	-22600-10-24 23:45 J	-6532929.53	-6532929.51	-6532929.48	0.0088	0.0087
Neptune	-22599-10-27 07:11 J	-6532562.42	-6532562.20	-6532561.95	0.0088	0.0043
Jupiter	-22598-10-26 18:14 J	-6532197.86	-6532197.74	-6532197.60	0.0492	0.0415
Neptune	-22598-10-30 02:38 J	-6532194.65	-6532194.39	-6532194.13	0.0088	0.0001
Uranus	-22597-05-19 07:40 J	-6531992.39	-6531992.18	-6531991.94	0.0138	0.0066
Neptune	-22597-10-31 07:55 J	-6531827.38	-6531827.17	-6531826.92	0.0088	0.0042
Uranus	-22596-05-23 12:28 J	-6531623.22	-6531622.98	-6531622.73	0.0138	0.0021
Neptune	-22596-11-03 03:36 J	-6531459.41	-6531459.35	-6531459.26	0.0088	0.0084
Uranus	-22595-05-28 05:31 J	-6531253.41	-6531253.27	-6531253.10	0.0139	0.0108
Mars	-22584-04-01 23:16 J	-6527291.69	-6527291.53	-6527291.37	0.1649	0.0756
Saturn	-22584-11-23 03:36 J	-6527056.58	-6527056.35	-6527056.10	0.0280	0.0069
Saturn	-22570-05-24 12:28 J	-6522126.20	-6522125.98	-6522125.75	0.0282	0.0096
Jupiter	-22568-04-21 15:50 J	-6521428.06	-6521427.84	-6521427.62	0.0534	0.0175
Uranus	-22559-11-16 01:26 J	-6517932.54	-6517932.44	-6517932.29	0.0141	0.0123
Uranus	-22558-11-20 17:31 J	-6517563.01	-6517562.77	-6517562.51	0.0141	0.0041
Uranus	-22557-11-24 22:04 J	-6517192.80	-6517192.58	-6517192.35	0.0140	0.0064
Jupiter	-22556-04-26 18:43 J	-6517039.88	-6517039.72	-6517039.57	0.0535	0.0381
Uranus	-22556-11-29 12:14 J	-6516823.01	-6516822.99	-6516822.97	0.0140	0.0139
Saturn	-22555-11-17 05:45 J	-6516470.40	-6516470.26	-6516470.10	0.0278	0.0223
Mars	-22544-10-02 00:00 J	-6512498.62	-6512498.50	-6512498.38	0.1873	0.1492
Saturn	-22541-05-17 18:14 J	-6511539.90	-6511539.74	-6511539.57	0.0284	0.0201
Pluto	-22528-08-04 00:57 J	-6506713.52	-6506713.46	-6506713.35	0.0068	0.0064
Pluto	-22527-08-05 11:31 J	-6506347.22	-6506347.02	-6506346.78	0.0068	0.0031
Jupiter	-22527-10-21 10:04 J	-6506270.31	-6506270.08	-6506269.84	0.0492	0.0107
Saturn	-22525-11-24 15:21 J	-6505505.08	-6505504.86	-6505504.65	0.0280	0.0151
Neptune	-22516-04-28 20:09 J	-6502427.87	-6502427.66	-6502427.44	0.0089	0.0043
Neptune	-22515-05-01 00:00 J	-6502060.75	-6502060.50	-6502060.25	0.0089	0.0007
Jupiter	-22515-10-25 15:36 J	-6501883.01	-6501882.85	-6501882.67	0.0492	0.0346

Neptune	-22514-05-03 17:02 J	-6501693.01	-6501692.79	-6501692.56	0.0089	0.0044
Neptune	-22513-05-04 21:07 J	-6501325.70	-6501325.62	-6501325.49	0.0089	0.0081
Uranus	-22513-05-19 22:19 J	-6501310.79	-6501310.57	-6501310.32	0.0138	0.0051
Uranus	-22512-05-24 03:36 J	-6500941.59	-6500941.35	-6500941.11	0.0138	0.0029
Saturn	-22511-05-25 18:28 J	-6500574.91	-6500574.73	-6500574.52	0.0281	0.0176
Uranus	-22511-05-28 20:23 J	-6500571.79	-6500571.65	-6500571.48	0.0139	0.0109
Mars	-22505-04-03 19:26 J	-6498434.84	-6498434.69	-6498434.54	0.1648	0.0807
Saturn	-22496-11-18 22:19 J	-6494918.77	-6494918.57	-6494918.35	0.0278	0.0137
Jupiter	-22485-04-20 22:04 J	-6491112.76	-6491112.58	-6491112.38	0.0534	0.0264
Saturn	-22482-05-20 08:09 J	-6489988.37	-6489988.16	-6489987.94	0.0283	0.0118
Uranus	-22475-11-16 14:52 J	-6487251.00	-6487250.88	-6487250.75	0.0141	0.0123
Uranus	-22474-11-21 06:14 J	-6486881.49	-6486881.24	-6486880.98	0.0141	0.0020
Jupiter	-22473-04-25 23:16 J	-6486724.73	-6486724.53	-6486724.33	0.0534	0.0276
Uranus	-22473-11-25 10:48 J	-6486511.27	-6486511.05	-6486510.80	0.0140	0.0057
Saturn	-22466-11-27 01:55 J	-6483953.54	-6483953.42	-6483953.28	0.0280	0.0240
Saturn	-22452-05-27 02:23 J	-6479023.48	-6479023.40	-6479023.30	0.0281	0.0261
Jupiter	-22444-10-20 06:14 J	-6475955.46	-6475955.24	-6475955.02	0.0492	0.0187
Pluto	-22441-02-09 00:14 J	-6475113.74	-6475113.49	-6475113.24	0.0077	0.0019
Saturn	-22437-11-20 19:26 J	-6473366.93	-6473366.69	-6473366.45	0.0279	0.0044
Neptune	-22435-10-26 18:57 J	-6472661.84	-6472661.71	-6472661.56	0.0088	0.0073
Neptune	-22434-10-29 00:28 J	-6472294.72	-6472294.48	-6472294.22	0.0088	0.0022
Neptune	-22433-10-30 19:40 J	-6471926.93	-6471926.68	-6471926.40	0.0088	0.0013
Jupiter	-22432-10-25 00:14 J	-6471567.68	-6471567.49	-6471567.29	0.0492	0.0271
Neptune	-22432-11-02 03:07 J	-6471559.54	-6471559.37	-6471559.20	0.0088	0.0064
Uranus	-22430-05-16 21:50 J	-6470998.68	-6470998.59	-6470998.47	0.0137	0.0123
Uranus	-22429-05-20 12:00 J	-6470629.22	-6470629.00	-6470628.74	0.0138	0.0050
Uranus	-22428-05-24 17:45 J	-6470259.98	-6470259.76	-6470259.51	0.0138	0.0038
Uranus	-22427-05-29 09:50 J	-6469890.18	-6469890.09	-6469889.95	0.0139	0.0124
Saturn	-22423-05-22 01:11 J	-6468436.68	-6468436.45	-6468436.21	0.0282	0.0029
Jupiter	-22402-04-20 17:16 J	-6460797.94	-6460797.78	-6460797.61	0.0534	0.0387

Uranus	-22391-11-17 05:31 J	-6456569.43	-6456569.27	-6456569.09	0.0141	0.0105
Jupiter	-22390-04-25 10:48 J	-6456410.26	-6456410.05	-6456409.83	0.0534	0.0135
Uranus	-22390-11-21 21:07 J	-6456199.87	-6456199.62	-6456199.36	0.0141	0.0024
Uranus	-22389-11-26 01:55 J	-6455829.63	-6455829.42	-6455829.21	0.0140	0.0080
Mars	-22379-03-31 14:09 J	-6452416.99	-6452416.91	-6452416.83	0.1654	0.1497
Saturn	-22378-11-23 13:40 J	-6451815.17	-6451814.93	-6451814.68	0.0279	0.0046
Saturn	-22364-05-23 16:33 J	-6446885.04	-6446884.81	-6446884.56	0.0282	0.0060
Jupiter	-22361-10-19 11:31 J	-6445640.21	-6445640.02	-6445639.83	0.0492	0.0285
Neptune	-22352-04-27 19:40 J	-6442527.81	-6442527.68	-6442527.54	0.0089	0.0075
Neptune	-22351-04-30 12:43 J	-6442160.21	-6442159.97	-6442159.71	0.0089	0.0026
Neptune	-22350-05-02 18:00 J	-6441792.98	-6441792.75	-6441792.50	0.0089	0.0013
Neptune	-22349-05-04 07:26 J	-6441425.35	-6441425.19	-6441424.97	0.0089	0.0062
Jupiter	-22349-10-23 17:02 J	-6441253.02	-6441252.79	-6441252.56	0.0492	0.0171
Saturn	-22349-11-16 19:55 J	-6441228.79	-6441228.67	-6441228.52	0.0277	0.0232
Uranus	-22346-05-17 10:19 J	-6440317.15	-6440317.07	-6440316.97	0.0137	0.0127
Uranus	-22345-05-20 23:31 J	-6439947.76	-6439947.52	-6439947.27	0.0138	0.0036
Uranus	-22344-05-25 05:45 J	-6439578.48	-6439578.26	-6439578.02	0.0138	0.0043
Uranus	-22343-05-29 21:07 J	-6439208.71	-6439208.62	-6439208.48	0.0139	0.0123
Saturn	-22335-05-18 10:33 J	-6436298.20	-6436298.06	-6436297.91	0.0284	0.0223
Jupiter	-22319-04-19 09:50 J	-6430483.15	-6430483.09	-6430483.03	0.0534	0.0512
Saturn	-22319-11-25 02:09 J	-6430263.63	-6430263.41	-6430263.17	0.0280	0.0133
Jupiter	-22307-04-24 17:31 J	-6426095.00	-6426094.77	-6426094.54	0.0535	0.0029
Uranus	-22307-11-17 15:07 J	-6425888.01	-6425887.87	-6425887.68	0.0141	0.0109
Uranus	-22306-11-22 07:11 J	-6425518.45	-6425518.20	-6425517.94	0.0141	0.0007
Saturn	-22305-05-25 03:36 J	-6425333.55	-6425333.35	-6425333.13	0.0281	0.0148
Uranus	-22305-11-26 11:45 J	-6425148.22	-6425148.01	-6425147.77	0.0140	0.0071
Mars	-22300-04-03 00:28 J	-6423559.67	-6423559.48	-6423559.29	0.1652	0.0435
Saturn	-22290-11-19 11:45 J	-6419677.21	-6419677.01	-6419676.81	0.0278	0.0153
Pluto	-22281-08-06 13:26 J	-6416494.17	-6416493.94	-6416493.69	0.0068	0.0021
Jupiter	-22278-10-19 09:21 J	-6415325.27	-6415325.11	-6415324.94	0.0493	0.0359

Saturn	-22276-05-20 04:04 J	-6414746.53	-6414746.33	-6414746.12	0.0283	0.0133
Neptune	-22270-10-28 11:16 J	-6412394.23	-6412394.03	-6412393.79	0.0088	0.0049
Neptune	-22269-10-29 19:40 J	-6412026.93	-6412026.68	-6412026.42	0.0088	0.0008
Neptune	-22268-11-01 11:02 J	-6411659.28	-6411659.04	-6411658.79	0.0088	0.0036
Neptune	-22267-11-03 23:31 J	-6411291.62	-6411291.52	-6411291.39	0.0088	0.0077
Jupiter	-22266-10-24 00:57 J	-6410937.68	-6410937.46	-6410937.23	0.0492	0.0108
Uranus	-22262-05-17 22:04 J	-6409635.70	-6409635.58	-6409635.41	0.0137	0.0111
Uranus	-22261-05-21 10:33 J	-6409266.29	-6409266.06	-6409265.80	0.0138	0.0039
Uranus	-22260-05-25 17:45 J	-6408896.97	-6408896.76	-6408896.52	0.0138	0.0049
Mars	-22260-09-30 13:55 J	-6408769.14	-6408768.92	-6408768.70	0.1867	0.0018
Saturn	-22260-11-26 10:19 J	-6408712.22	-6408712.07	-6408711.89	0.0280	0.0213
Uranus	-22259-05-30 08:23 J	-6408527.21	-6408527.15	-6408527.07	0.0139	0.0133
Saturn	-22246-05-27 12:57 J	-6403782.08	-6403781.96	-6403781.82	0.0281	0.0233
Saturn	-22231-11-21 00:57 J	-6398125.69	-6398125.46	-6398125.22	0.0278	0.0081
Jupiter	-22224-04-23 07:55 J	-6395780.39	-6395780.17	-6395779.94	0.0534	0.0086
Uranus	-22223-11-18 00:28 J	-6395206.65	-6395206.48	-6395206.27	0.0141	0.0097
Uranus	-22222-11-22 17:16 J	-6394837.04	-6394836.78	-6394836.53	0.0141	0.0014
Mars	-22221-04-05 08:09 J	-6394702.29	-6394702.16	-6394702.04	0.1650	0.1221
Uranus	-22221-11-26 22:04 J	-6394466.77	-6394466.58	-6394466.37	0.0140	0.0089
Saturn	-22217-05-21 18:43 J	-6393194.96	-6393194.72	-6393194.49	0.0283	0.0050
Jupiter	-22212-04-28 12:57 J	-6391392.09	-6391391.96	-6391391.82	0.0534	0.0428
Pluto	-22195-02-09 13:40 J	-6385261.19	-6385260.93	-6385260.66	0.0077	0.0004
Jupiter	-22195-10-18 18:14 J	-6385009.85	-6385009.74	-6385009.62	0.0492	0.0425
Neptune	-22187-04-29 14:09 J	-6382260.09	-6382259.91	-6382259.69	0.0089	0.0050
Neptune	-22186-05-02 03:36 J	-6381892.60	-6381892.35	-6381892.08	0.0089	0.0014
Neptune	-22185-05-03 13:55 J	-6381525.13	-6381524.92	-6381524.68	0.0089	0.0037
Neptune	-22184-05-05 22:04 J	-6381157.71	-6381157.58	-6381157.40	0.0089	0.0073
Jupiter	-22183-10-23 04:04 J	-6380622.57	-6380622.33	-6380622.08	0.0492	0.0041
Uranus	-22178-05-18 11:02 J	-6378954.14	-6378954.04	-6378953.88	0.0137	0.0115
Uranus	-22177-05-21 22:33 J	-6378584.81	-6378584.56	-6378584.30	0.0138	0.0024

Uranus	-22176-05-26 06:43 J	-6378215.43	-6378215.22	-6378214.99	0.0138	0.0053
Uranus	-22175-05-30 20:23 J	-6377845.70	-6377845.65	-6377845.57	0.0139	0.0134
Saturn	-22172-11-22 04:33 J	-6376574.56	-6376574.31	-6376574.05	0.0279	0.0016
Saturn	-22158-05-24 00:43 J	-6371643.72	-6371643.47	-6371643.22	0.0283	0.0026
Jupiter	-22141-04-22 15:50 J	-6365465.04	-6365464.84	-6365464.62	0.0534	0.0194
Uranus	-22139-11-18 06:57 J	-6364525.38	-6364525.21	-6364525.00	0.0141	0.0100
Uranus	-22138-11-23 00:28 J	-6364155.74	-6364155.48	-6364155.23	0.0141	0.0001
Uranus	-22137-11-27 04:48 J	-6363785.50	-6363785.30	-6363785.07	0.0140	0.0078
Jupiter	-22129-04-27 12:00 J	-6361077.18	-6361077.00	-6361076.81	0.0535	0.0337
Saturn	-22129-05-17 10:04 J	-6361057.12	-6361057.08	-6361057.02	0.0284	0.0276
Saturn	-22113-11-23 00:43 J	-6355023.72	-6355023.47	-6355023.21	0.0279	0.0042
Jupiter	-22112-10-18 00:43 J	-6354694.52	-6354694.47	-6354694.41	0.0492	0.0479
Neptune	-22106-10-27 14:23 J	-6352494.01	-6352493.90	-6352493.77	0.0088	0.0077
Neptune	-22105-10-29 04:04 J	-6352126.58	-6352126.33	-6352126.06	0.0088	0.0027
Neptune	-22104-10-31 17:31 J	-6351759.02	-6351758.77	-6351758.51	0.0088	0.0008
Neptune	-22103-11-03 02:23 J	-6351391.58	-6351391.40	-6351391.18	0.0088	0.0059
Jupiter	-22100-10-22 09:07 J	-6350307.35	-6350307.12	-6350306.89	0.0493	0.0009
Saturn	-22099-05-24 23:31 J	-6350092.75	-6350092.52	-6350092.28	0.0282	0.0093
Mars	-22095-04-01 20:38 J	-6348684.76	-6348684.64	-6348684.52	0.1658	0.1184
Uranus	-22094-05-19 01:55 J	-6348272.58	-6348272.42	-6348272.23	0.0137	0.0095
Uranus	-22093-05-22 12:43 J	-6347903.22	-6347902.97	-6347902.71	0.0137	0.0024
Uranus	-22092-05-26 21:21 J	-6347533.81	-6347533.61	-6347533.38	0.0138	0.0063
Jupiter	-22088-10-27 04:19 J	-6345919.40	-6345919.32	-6345919.23	0.0492	0.0459
Saturn	-22084-11-17 15:50 J	-6344436.94	-6344436.84	-6344436.73	0.0277	0.0248
Saturn	-22070-05-19 17:16 J	-6339505.93	-6339505.78	-6339505.62	0.0284	0.0210
Jupiter	-22058-04-22 19:40 J	-6335149.88	-6335149.68	-6335149.47	0.0534	0.0265
Uranus	-22055-11-18 17:31 J	-6333843.96	-6333843.77	-6333843.55	0.0141	0.0088
Uranus	-22054-11-23 11:45 J	-6333474.27	-6333474.01	-6333473.76	0.0141	0.0005
Saturn	-22054-11-24 21:21 J	-6333472.83	-6333472.61	-6333472.37	0.0279	0.0091
Uranus	-22053-11-27 15:50 J	-6333104.02	-6333103.84	-6333103.64	0.0140	0.0097

Jupiter	-22046-04-27 20:52 J	-6330761.82	-6330761.63	-6330761.44	0.0534	0.0269
Saturn	-22040-05-25 23:16 J	-6328541.73	-6328541.53	-6328541.33	0.0282	0.0151
Pluto	-22035-08-08 06:00 J	-6326641.52	-6326641.25	-6326640.98	0.0068	0.0007
Saturn	-22025-11-18 13:55 J	-6322886.08	-6322885.92	-6322885.74	0.0277	0.0201
Neptune	-22023-04-29 00:14 J	-6322359.58	-6322359.49	-6322359.35	0.0089	0.0081
Neptune	-22022-05-01 11:45 J	-6321992.22	-6321992.01	-6321991.76	0.0089	0.0034
Neptune	-22021-05-02 19:26 J	-6321624.94	-6321624.69	-6321624.42	0.0089	0.0007
Neptune	-22020-05-05 10:48 J	-6321257.24	-6321257.05	-6321256.85	0.0089	0.0055
Jupiter	-22017-10-22 02:38 J	-6319991.63	-6319991.39	-6319991.15	0.0493	0.0037
Mars	-22016-04-03 20:09 J	-6319827.85	-6319827.66	-6319827.47	0.1656	0.0190
Saturn	-22011-05-20 17:31 J	-6317954.98	-6317954.77	-6317954.57	0.0284	0.0154
Uranus	-22010-05-19 16:04 J	-6317590.98	-6317590.83	-6317590.65	0.0137	0.0099
Uranus	-22009-05-23 01:40 J	-6317221.69	-6317221.43	-6317221.17	0.0138	0.0008
Uranus	-22008-05-27 11:31 J	-6316852.22	-6316852.02	-6316851.80	0.0138	0.0068
Jupiter	-22005-10-26 06:28 J	-6315604.35	-6315604.23	-6315604.09	0.0492	0.0410

22ND MILLENNIUM BCE

This is a list of transits of Moon in the 22nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Saturn	-21995-11-25 20:23 J	-6311921.86	-6311921.65	-6311921.44	0.0279	0.0138		
Saturn	-21981-05-27 00:43 J	-6306990.62	-6306990.47	-6306990.30	0.0282	0.0204		
Mars	-21976-09-29 22:48 J	-6305038.71	-6305038.55	-6305038.38	0.1862	0.0887		
Jupiter	-21975-04-22 05:45 J	-6304834.43	-6304834.26	-6304834.09	0.0533	0.0341		

Uranus	-21971-11-19 03:21 J	-6303162.55	-6303162.36	-6303162.13	0.0141	0.0087
Uranus	-21970-11-23 22:19 J	-6302792.82	-6302792.57	-6302792.31	0.0141	0.0012
Uranus	-21969-11-28 01:40 J	-6302422.62	-6302422.43	-6302422.21	0.0140	0.0088
Saturn	-21966-11-20 04:33 J	-6301335.52	-6301335.31	-6301335.09	0.0277	0.0155
Jupiter	-21963-04-27 04:33 J	-6300446.53	-6300446.31	-6300446.09	0.0534	0.0192
Saturn	-21952-05-21 10:33 J	-6296404.29	-6296404.06	-6296403.82	0.0284	0.0098
Pluto	-21949-02-11 05:02 J	-6295408.51	-6295408.29	-6295408.03	0.0077	0.0027
Neptune	-21941-10-28 12:28 J	-6292226.17	-6292225.98	-6292225.76	0.0088	0.0051
Neptune	-21940-10-30 21:21 J	-6291858.87	-6291858.61	-6291858.34	0.0088	0.0012
Neptune	-21939-11-02 15:36 J	-6291491.08	-6291490.85	-6291490.61	0.0088	0.0034
Neptune	-21938-11-04 20:38 J	-6291123.75	-6291123.64	-6291123.46	0.0088	0.0073
Mars	-21937-04-06 04:19 J	-6290970.41	-6290970.32	-6290970.23	0.1654	0.1465
Saturn	-21936-11-26 18:14 J	-6290370.92	-6290370.74	-6290370.55	0.0279	0.0183
Jupiter	-21934-10-22 06:14 J	-6289676.47	-6289676.24	-6289676.00	0.0493	0.0076
Uranus	-21926-05-20 05:45 J	-6286909.44	-6286909.26	-6286909.05	0.0137	0.0080
Uranus	-21925-05-23 14:38 J	-6286540.14	-6286539.89	-6286539.63	0.0138	0.0011
Uranus	-21924-05-28 01:26 J	-6286170.63	-6286170.44	-6286170.23	0.0138	0.0077
Saturn	-21922-05-28 23:16 J	-6285439.63	-6285439.53	-6285439.42	0.0282	0.0254
Jupiter	-21922-10-27 00:00 J	-6285288.65	-6285288.50	-6285288.34	0.0493	0.0362
Saturn	-21907-11-20 20:09 J	-6279784.88	-6279784.66	-6279784.43	0.0277	0.0109
Saturn	-21893-05-22 04:19 J	-6274853.56	-6274853.32	-6274853.08	0.0284	0.0045
Jupiter	-21892-04-21 14:09 J	-6274519.06	-6274518.91	-6274518.76	0.0533	0.0415
Uranus	-21887-11-19 15:50 J	-6272481.05	-6272480.84	-6272480.60	0.0141	0.0076
Uranus	-21886-11-24 11:45 J	-6272111.26	-6272111.01	-6272110.76	0.0141	0.0009
Uranus	-21885-11-28 14:23 J	-6271741.05	-6271740.90	-6271740.72	0.0140	0.0109
Jupiter	-21880-04-26 12:00 J	-6270131.22	-6270131.00	-6270130.79	0.0534	0.0145
Saturn	-21877-11-27 11:02 J	-6268820.17	-6268820.04	-6268819.89	0.0279	0.0233
Neptune	-21858-04-30 17:16 J	-6262091.97	-6262091.78	-6262091.55	0.0089	0.0054
Neptune	-21857-05-02 09:36 J	-6261724.33	-6261724.10	-6261723.84	0.0089	0.0020
Neptune	-21856-05-04 13:55 J	-6261357.15	-6261356.92	-6261356.68	0.0089	0.0033

Neptune	-21855-05-07 07:11 J	-6260989.35	-6260989.20	-6260989.01	0.0089	0.0068
Jupiter	-21851-10-21 22:04 J	-6259360.80	-6259360.58	-6259360.35	0.0493	0.0129
Saturn	-21848-11-21 20:23 J	-6258233.88	-6258233.65	-6258233.41	0.0277	0.0056
Uranus	-21842-05-20 17:16 J	-6256227.95	-6256227.78	-6256227.58	0.0137	0.0087
Uranus	-21841-05-24 00:43 J	-6255858.72	-6255858.47	-6255858.21	0.0138	0.0005
Uranus	-21840-05-28 12:43 J	-6255489.16	-6255488.97	-6255488.77	0.0138	0.0078
Jupiter	-21839-10-26 06:57 J	-6254973.40	-6254973.21	-6254973.02	0.0493	0.0310
Saturn	-21834-05-24 04:33 J	-6253302.54	-6253302.31	-6253302.08	0.0284	0.0008
Mars	-21811-04-03 08:38 J	-6244952.30	-6244952.14	-6244951.97	0.1661	0.0729
Jupiter	-21809-04-20 22:19 J	-6244203.67	-6244203.57	-6244203.47	0.0533	0.0471
Uranus	-21803-11-20 01:40 J	-6241799.65	-6241799.43	-6241799.19	0.0141	0.0073
Uranus	-21802-11-24 22:19 J	-6241429.81	-6241429.57	-6241429.32	0.0141	0.0024
Uranus	-21801-11-29 00:00 J	-6241059.68	-6241059.50	-6241059.30	0.0140	0.0100
Jupiter	-21797-04-26 04:19 J	-6239815.54	-6239815.32	-6239815.09	0.0533	0.0098
Pluto	-21789-08-08 19:55 J	-6236788.91	-6236788.67	-6236788.41	0.0068	0.0012
Saturn	-21789-11-23 00:00 J	-6236682.75	-6236682.50	-6236682.25	0.0277	0.0004
Neptune	-21777-10-27 15:36 J	-6232325.96	-6232325.85	-6232325.72	0.0088	0.0078
Neptune	-21776-10-30 10:48 J	-6231958.29	-6231958.05	-6231957.80	0.0088	0.0028
Saturn	-21775-05-25 07:11 J	-6231751.42	-6231751.20	-6231750.96	0.0284	0.0066
Neptune	-21775-11-01 16:19 J	-6231591.08	-6231590.82	-6231590.55	0.0088	0.0006
Neptune	-21774-11-04 11:31 J	-6231223.20	-6231223.02	-6231222.80	0.0088	0.0057
Jupiter	-21768-10-21 03:36 J	-6229045.58	-6229045.35	-6229045.12	0.0493	0.0174
Uranus	-21758-05-21 03:21 J	-6225546.56	-6225546.36	-6225546.14	0.0137	0.0070
Uranus	-21757-05-24 09:50 J	-6225177.35	-6225177.09	-6225176.83	0.0138	0.0003
Uranus	-21756-05-28 22:19 J	-6224807.74	-6224807.57	-6224807.37	0.0138	0.0086
Jupiter	-21756-10-25 17:45 J	-6224657.95	-6224657.76	-6224657.56	0.0493	0.0251
Saturn	-21746-05-19 07:11 J	-6221165.30	-6221165.20	-6221165.08	0.0287	0.0252
Mars	-21732-04-05 06:57 J	-6216095.38	-6216095.21	-6216095.03	0.1659	0.0286
Saturn	-21730-11-25 01:40 J	-6215131.68	-6215131.43	-6215131.18	0.0277	0.0070
Uranus	-21719-11-20 10:19 J	-6211118.30	-6211118.07	-6211117.83	0.0141	0.0067

Uranus	-21718-11-25 08:23 J	-6210748.39	-6210748.15	-6210747.90	0.0141	0.0019
Uranus	-21717-11-29 08:52 J	-6210378.26	-6210378.13	-6210377.97	0.0140	0.0118
Saturn	-21716-05-26 06:43 J	-6210200.44	-6210200.22	-6210199.99	0.0284	0.0126
Jupiter	-21714-04-25 23:45 J	-6209500.75	-6209500.51	-6209500.28	0.0533	0.0010
Pluto	-21703-02-12 00:00 J	-6205555.62	-6205555.50	-6205555.34	0.0077	0.0064
Saturn	-21701-11-18 06:57 J	-6204545.33	-6204545.21	-6204545.06	0.0275	0.0225
Neptune	-21694-04-30 08:52 J	-6202191.20	-6202191.13	-6202191.01	0.0089	0.0083
Neptune	-21693-05-01 12:57 J	-6201824.18	-6201823.96	-6201823.72	0.0089	0.0037
Neptune	-21692-05-04 06:28 J	-6201456.49	-6201456.23	-6201455.98	0.0089	0.0004
Mars	-21692-09-29 18:14 J	-6201307.85	-6201307.74	-6201307.62	0.1856	0.1530
Neptune	-21691-05-06 10:33 J	-6201089.24	-6201089.06	-6201088.84	0.0089	0.0051
Saturn	-21687-05-20 12:14 J	-6199614.16	-6199613.99	-6199613.81	0.0287	0.0187
Jupiter	-21685-10-20 08:23 J	-6198730.35	-6198730.15	-6198729.96	0.0493	0.0254
Uranus	-21674-05-21 12:28 J	-6194865.17	-6194864.98	-6194864.77	0.0137	0.0080
Uranus	-21673-05-24 17:31 J	-6194496.02	-6194495.77	-6194495.51	0.0138	0.0012
Jupiter	-21673-10-24 23:02 J	-6194342.77	-6194342.54	-6194342.30	0.0493	0.0161
Uranus	-21672-05-29 07:11 J	-6194126.38	-6194126.20	-6194125.99	0.0138	0.0083
Saturn	-21671-11-26 05:16 J	-6193580.50	-6193580.28	-6193580.06	0.0277	0.0146
Saturn	-21657-05-27 07:40 J	-6188649.36	-6188649.18	-6188649.00	0.0284	0.0194
Saturn	-21642-11-20 21:36 J	-6182993.80	-6182993.60	-6182993.39	0.0275	0.0146
Uranus	-21635-11-20 14:23 J	-6180437.12	-6180436.90	-6180436.64	0.0141	0.0066
Uranus	-21634-11-25 14:09 J	-6180067.15	-6180066.91	-6180066.66	0.0141	0.0028
Uranus	-21633-11-29 13:11 J	-6179697.11	-6179696.95	-6179696.75	0.0140	0.0105
Jupiter	-21631-04-25 12:14 J	-6179185.21	-6179184.99	-6179184.77	0.0533	0.0061
Saturn	-21628-05-21 22:33 J	-6178062.77	-6178062.56	-6178062.33	0.0286	0.0112
Jupiter	-21619-04-30 07:40 J	-6174797.23	-6174797.18	-6174797.11	0.0533	0.0516
Mars	-21613-10-02 19:55 J	-6172449.79	-6172449.67	-6172449.54	0.1859	0.1365
Neptune	-21612-10-29 12:43 J	-6172058.18	-6172057.97	-6172057.76	0.0088	0.0051
Saturn	-21612-11-27 15:36 J	-6172028.98	-6172028.85	-6172028.70	0.0277	0.0228
Neptune	-21611-11-01 07:55 J	-6171690.42	-6171690.17	-6171689.90	0.0088	0.0013

Neptune	-21610-11-03 15:21 J	-6171323.09	-6171322.86	-6171322.62	0.0088	0.0034
Neptune	-21609-11-05 07:26 J	-6170955.34	-6170955.19	-6170955.03	0.0088	0.0072
Jupiter	-21602-10-20 15:50 J	-6168415.02	-6168414.84	-6168414.65	0.0494	0.0319
Saturn	-21598-05-29 15:21 J	-6167097.92	-6167097.86	-6167097.79	0.0284	0.0272
Uranus	-21590-05-21 23:16 J	-6164183.73	-6164183.53	-6164183.30	0.0137	0.0062
Jupiter	-21590-10-24 22:33 J	-6164027.79	-6164027.56	-6164027.33	0.0493	0.0089
Uranus	-21589-05-25 03:36 J	-6163814.60	-6163814.35	-6163814.09	0.0137	0.0004
Uranus	-21588-05-29 18:00 J	-6163444.91	-6163444.75	-6163444.56	0.0138	0.0093
Saturn	-21583-11-22 13:26 J	-6161442.19	-6161441.94	-6161441.69	0.0276	0.0061
Saturn	-21569-05-23 10:48 J	-6156511.29	-6156511.05	-6156510.80	0.0286	0.0027
Uranus	-21551-11-20 20:38 J	-6149755.87	-6149755.64	-6149755.40	0.0141	0.0065
Uranus	-21550-11-25 21:50 J	-6149385.83	-6149385.59	-6149385.34	0.0141	0.0023
Uranus	-21549-11-29 19:11 J	-6149015.82	-6149015.70	-6149015.54	0.0140	0.0120
Jupiter	-21548-04-24 04:33 J	-6148870.53	-6148870.31	-6148870.08	0.0533	0.0181
Pluto	-21543-08-10 15:07 J	-6146936.05	-6146935.87	-6146935.64	0.0068	0.0040
Pluto	-21542-08-12 01:55 J	-6146569.48	-6146569.42	-6146569.32	0.0068	0.0065
Jupiter	-21536-04-29 03:21 J	-6144482.51	-6144482.36	-6144482.21	0.0533	0.0387
Neptune	-21529-05-01 06:28 J	-6141923.41	-6141923.23	-6141923.00	0.0089	0.0055
Neptune	-21528-05-03 12:14 J	-6141556.23	-6141555.99	-6141555.75	0.0089	0.0020
Mars	-21527-04-04 04:33 J	-6141220.50	-6141220.31	-6141220.12	0.1665	0.0524
Neptune	-21527-05-06 02:23 J	-6141188.64	-6141188.40	-6141188.15	0.0089	0.0031
Neptune	-21526-05-08 11:02 J	-6140821.18	-6140821.04	-6140820.86	0.0089	0.0066
Saturn	-21524-11-24 02:38 J	-6139890.65	-6139890.39	-6139890.13	0.0276	0.0032
Jupiter	-21519-10-19 12:14 J	-6138100.12	-6138099.99	-6138099.85	0.0494	0.0402
Saturn	-21510-05-25 20:38 J	-6134959.88	-6134959.64	-6134959.39	0.0285	0.0061
Uranus	-21507-05-17 19:40 J	-6133871.70	-6133871.68	-6133871.61	0.0136	0.0135
Jupiter	-21507-10-24 03:36 J	-6133712.59	-6133712.35	-6133712.11	0.0493	0.0013
Uranus	-21506-05-22 10:19 J	-6133502.27	-6133502.07	-6133501.85	0.0137	0.0071
Uranus	-21505-05-25 13:40 J	-6133133.17	-6133132.93	-6133132.67	0.0137	0.0022
Uranus	-21504-05-30 05:02 J	-6132763.46	-6132763.29	-6132763.09	0.0138	0.0091

Jupiter	-21495-10-28 07:11 J	-6129325.33	-6129325.20	-6129325.05	0.0493	0.0397
Saturn	-21495-11-18 19:55 J	-6129303.77	-6129303.67	-6129303.54	0.0274	0.0239
Saturn	-21481-05-19 18:43 J	-6124372.86	-6124372.72	-6124372.58	0.0287	0.0228
Uranus	-21467-11-21 03:07 J	-6119074.60	-6119074.37	-6119074.11	0.0141	0.0059
Uranus	-21466-11-26 05:31 J	-6118704.52	-6118704.27	-6118704.03	0.0141	0.0031
Jupiter	-21465-04-23 02:38 J	-6118555.56	-6118555.39	-6118555.20	0.0533	0.0302
Saturn	-21465-11-25 15:21 J	-6118339.08	-6118338.86	-6118338.63	0.0277	0.0126
Uranus	-21465-11-30 01:40 J	-6118334.59	-6118334.43	-6118334.26	0.0140	0.0110
Pluto	-21456-02-14 11:31 J	-6115336.22	-6115336.02	-6115335.83	0.0076	0.0048
Jupiter	-21453-04-28 05:31 J	-6114167.47	-6114167.27	-6114167.07	0.0534	0.0279
Saturn	-21451-05-27 08:09 J	-6113408.35	-6113408.16	-6113407.94	0.0284	0.0152
Mars	-21448-04-06 15:21 J	-6112363.04	-6112362.86	-6112362.69	0.1663	0.0650
Neptune	-21448-10-29 02:52 J	-6112157.48	-6112157.38	-6112157.24	0.0088	0.0078
Neptune	-21447-10-31 11:02 J	-6111790.27	-6111790.04	-6111789.79	0.0088	0.0029
Neptune	-21446-11-03 02:52 J	-6111422.64	-6111422.38	-6111422.10	0.0088	0.0007
Neptune	-21445-11-04 15:36 J	-6111055.04	-6111054.85	-6111054.66	0.0088	0.0056
Saturn	-21436-11-20 14:38 J	-6107752.08	-6107751.89	-6107751.67	0.0275	0.0151
Jupiter	-21424-10-22 21:50 J	-6103397.82	-6103397.59	-6103397.35	0.0494	0.0093
Saturn	-21422-05-22 13:26 J	-6102821.14	-6102820.94	-6102820.72	0.0287	0.0135
Uranus	-21422-05-22 21:36 J	-6102820.81	-6102820.60	-6102820.36	0.0137	0.0052 *
Uranus	-21421-05-26 00:57 J	-6102451.71	-6102451.46	-6102451.21	0.0138	0.0013
Uranus	-21420-05-30 17:02 J	-6102081.95	-6102081.79	-6102081.62	0.0138	0.0103
Jupiter	-21412-10-27 16:33 J	-6099009.98	-6099009.81	-6099009.63	0.0493	0.0326
Saturn	-21406-11-28 07:40 J	-6096787.32	-6096787.18	-6096787.02	0.0277	0.0216
Saturn	-21392-05-29 01:40 J	-6091856.54	-6091856.43	-6091856.30	0.0284	0.0243
Uranus	-21384-11-16 17:31 J	-6088762.79	-6088762.77	-6088762.71	0.0142	0.0140
Uranus	-21383-11-21 12:57 J	-6088393.20	-6088392.96	-6088392.71	0.0141	0.0058
Jupiter	-21382-04-23 04:48 J	-6088240.45	-6088240.30	-6088240.13	0.0533	0.0389
Uranus	-21382-11-26 16:04 J	-6088023.07	-6088022.83	-6088022.58	0.0141	0.0032
Uranus	-21381-11-30 11:16 J	-6087653.15	-6087653.03	-6087652.91	0.0140	0.0125

Saturn	-21377-11-22 02:52 J	-6086200.62	-6086200.38	-6086200.12	0.0275	0.0071
Jupiter	-21370-04-27 19:55 J	-6083852.88	-6083852.67	-6083852.45	0.0533	0.0156
Neptune	-21365-04-30 13:40 J	-6082023.03	-6082022.93	-6082022.83	0.0089	0.0081
Neptune	-21364-05-03 03:07 J	-6081655.61	-6081655.37	-6081655.13	0.0089	0.0036
Neptune	-21363-05-05 12:43 J	-6081288.22	-6081287.97	-6081287.73	0.0089	0.0005
Saturn	-21363-05-24 03:36 J	-6081269.59	-6081269.35	-6081269.10	0.0286	0.0044
Neptune	-21362-05-07 21:07 J	-6080920.81	-6080920.62	-6080920.38	0.0089	0.0051
Jupiter	-21341-10-22 07:11 J	-6073082.41	-6073082.20	-6073081.98	0.0493	0.0176
Uranus	-21339-05-18 16:04 J	-6072508.90	-6072508.83	-6072508.71	0.0137	0.0126
Uranus	-21338-05-23 07:40 J	-6072139.39	-6072139.18	-6072138.95	0.0137	0.0062
Uranus	-21337-05-26 10:33 J	-6071770.31	-6071770.06	-6071769.81	0.0138	0.0031
Uranus	-21336-05-31 02:52 J	-6071400.53	-6071400.38	-6071400.19	0.0138	0.0099
Mars	-21329-10-02 06:43 J	-6068719.43	-6068719.22	-6068719.01	0.1853	0.0317
Jupiter	-21329-10-26 12:43 J	-6068695.18	-6068694.97	-6068694.75	0.0493	0.0239
Saturn	-21318-11-24 08:38 J	-6064649.40	-6064649.14	-6064648.88	0.0276	0.0007
Saturn	-21304-05-25 12:57 J	-6059718.21	-6059717.96	-6059717.71	0.0286	0.0041
Jupiter	-21299-04-21 20:52 J	-6057925.69	-6057925.63	-6057925.56	0.0532	0.0505
Uranus	-21299-11-21 22:04 J	-6057711.82	-6057711.58	-6057711.32	0.0141	0.0048
Uranus	-21298-11-27 01:55 J	-6057341.66	-6057341.42	-6057341.18	0.0141	0.0039
Uranus	-21297-11-30 19:40 J	-6056971.81	-6056971.68	-6056971.53	0.0140	0.0119
Pluto	-21296-08-12 16:19 J	-6056717.05	-6056716.82	-6056716.59	0.0068	0.0026
Jupiter	-21287-04-27 00:28 J	-6053537.71	-6053537.48	-6053537.24	0.0533	0.0044
Neptune	-21283-10-30 23:31 J	-6051889.73	-6051889.52	-6051889.29	0.0088	0.0050
Neptune	-21282-11-02 12:28 J	-6051522.22	-6051521.98	-6051521.72	0.0088	0.0014
Neptune	-21281-11-03 21:50 J	-6051154.81	-6051154.59	-6051154.32	0.0088	0.0036
Neptune	-21280-11-06 15:36 J	-6050786.97	-6050786.85	-6050786.69	0.0088	0.0073
Saturn	-21275-05-20 04:48 J	-6049131.38	-6049131.30	-6049131.19	0.0287	0.0262
Saturn	-21259-11-25 12:14 J	-6043098.22	-6043097.99	-6043097.74	0.0276	0.0075
Jupiter	-21258-10-22 06:00 J	-6042767.45	-6042767.25	-6042767.03	0.0493	0.0257
Uranus	-21255-05-19 00:14 J	-6041827.51	-6041827.49	-6041827.42	0.0137	0.0135

Uranus	-21254-05-23 16:19 J	-6041458.04	-6041457.82	-6041457.57	0.0137	0.0044
Uranus	-21253-05-26 18:57 J	-6041088.95	-6041088.71	-6041088.46	0.0138	0.0020
Uranus	-21252-05-31 12:00 J	-6040719.13	-6040719.00	-6040718.84	0.0138	0.0111
Jupiter	-21246-10-26 19:26 J	-6038379.90	-6038379.69	-6038379.48	0.0494	0.0178
Saturn	-21245-05-26 20:38 J	-6038166.85	-6038166.64	-6038166.42	0.0285	0.0121
Mars	-21243-04-05 01:11 J	-6037488.63	-6037488.45	-6037488.27	0.1669	0.0324
Saturn	-21230-11-20 10:19 J	-6032511.21	-6032511.07	-6032510.89	0.0274	0.0211
Saturn	-21216-05-21 15:50 J	-6027580.01	-6027579.84	-6027579.64	0.0287	0.0183
Uranus	-21216-11-17 13:40 J	-6027400.03	-6027399.93	-6027399.82	0.0142	0.0129
Uranus	-21215-11-22 07:11 J	-6027030.45	-6027030.20	-6027029.95	0.0141	0.0050
Uranus	-21214-11-27 11:45 J	-6026660.24	-6026660.01	-6026659.76	0.0141	0.0041
Uranus	-21213-12-01 04:33 J	-6026290.38	-6026290.31	-6026290.20	0.0140	0.0132
Pluto	-21210-02-15 22:19 J	-6025483.82	-6025483.57	-6025483.31	0.0077	0.0010
Jupiter	-21204-04-25 23:02 J	-6023222.77	-6023222.54	-6023222.31	0.0533	0.0035
Neptune	-21200-05-02 14:52 J	-6021755.06	-6021754.88	-6021754.66	0.0089	0.0053
Saturn	-21200-11-26 16:48 J	-6021547.00	-6021546.80	-6021546.58	0.0277	0.0136
Neptune	-21199-05-04 23:16 J	-6021387.78	-6021387.53	-6021387.27	0.0089	0.0019
Neptune	-21198-05-07 13:40 J	-6021020.14	-6021019.93	-6021019.68	0.0089	0.0034
Neptune	-21197-05-08 18:14 J	-6020652.90	-6020652.74	-6020652.56	0.0089	0.0067
Jupiter	-21192-05-01 03:21 J	-6018834.46	-6018834.36	-6018834.24	0.0533	0.0462
Saturn	-21186-05-29 05:16 J	-6016615.44	-6016615.28	-6016615.09	0.0285	0.0191
Jupiter	-21175-10-21 14:38 J	-6012452.06	-6012451.89	-6012451.71	0.0494	0.0321
Uranus	-21171-05-19 07:55 J	-6011146.27	-6011146.17	-6011146.04	0.0137	0.0121
Saturn	-21171-11-21 07:55 J	-6010960.38	-6010960.17	-6010959.95	0.0275	0.0149
Uranus	-21170-05-23 23:31 J	-6010776.74	-6010776.52	-6010776.29	0.0137	0.0056
Uranus	-21169-05-27 01:40 J	-6010407.66	-6010407.43	-6010407.18	0.0138	0.0037
Uranus	-21168-05-31 18:43 J	-6010037.87	-6010037.72	-6010037.54	0.0138	0.0102
Mars	-21164-04-07 07:40 J	-6008631.34	-6008631.18	-6008631.01	0.1667	0.0930
Jupiter	-21163-10-26 06:00 J	-6008064.48	-6008064.25	-6008064.01	0.0494	0.0128
Saturn	-21157-05-22 17:31 J	-6006028.99	-6006028.77	-6006028.53	0.0286	0.0116

Saturn	-21141-11-27 19:40 J	-5999995.85	-5999995.68	-5999995.50	0.0277	0.0193
Uranus	-21132-11-17 20:23 J	-5996718.68	-5996718.65	-5996718.61	0.0142	0.0140
Uranus	-21131-11-22 13:26 J	-5996349.20	-5996348.94	-5996348.69	0.0141	0.0040
Uranus	-21130-11-27 18:14 J	-5995978.96	-5995978.74	-5995978.48	0.0141	0.0045
Uranus	-21129-12-01 10:33 J	-5995609.16	-5995609.06	-5995608.93	0.0140	0.0126
Saturn	-21127-05-30 11:31 J	-5995064.13	-5995064.02	-5995063.91	0.0285	0.0251
Jupiter	-21121-04-25 11:16 J	-5992907.24	-5992907.03	-5992906.81	0.0532	0.0115
Neptune	-21119-10-30 09:50 J	-5991989.20	-5991989.09	-5991988.95	0.0088	0.0076
Neptune	-21118-11-01 18:57 J	-5991621.95	-5991621.71	-5991621.44	0.0088	0.0027
Neptune	-21117-11-03 13:26 J	-5991254.19	-5991253.94	-5991253.68	0.0088	0.0009
Neptune	-21116-11-05 19:11 J	-5990886.88	-5990886.70	-5990886.48	0.0088	0.0058
Saturn	-21112-11-22 01:11 J	-5989409.68	-5989409.45	-5989409.21	0.0275	0.0094
Jupiter	-21109-04-30 03:50 J	-5988519.51	-5988519.34	-5988519.17	0.0533	0.0370
Saturn	-21098-05-24 14:38 J	-5984478.13	-5984477.89	-5984477.65	0.0286	0.0058
Jupiter	-21092-10-21 03:07 J	-5982136.53	-5982136.37	-5982136.20	0.0494	0.0367
Uranus	-21087-05-19 15:21 J	-5980464.93	-5980464.86	-5980464.77	0.0136	0.0129
Uranus	-21086-05-24 06:43 J	-5980095.45	-5980095.22	-5980094.97	0.0137	0.0040
Uranus	-21085-05-27 09:21 J	-5979726.35	-5979726.11	-5979725.86	0.0137	0.0024
Uranus	-21084-06-01 02:09 J	-5979356.53	-5979356.41	-5979356.25	0.0138	0.0115
Saturn	-21082-11-29 14:38 J	-5978445.01	-5978444.89	-5978444.76	0.0277	0.0243
Jupiter	-21080-10-25 11:45 J	-5977749.24	-5977749.01	-5977748.78	0.0493	0.0086
Saturn	-21053-11-22 23:16 J	-5967858.77	-5967858.53	-5967858.29	0.0274	0.0045
Pluto	-21050-08-14 04:19 J	-5966864.56	-5966864.32	-5966864.08	0.0068	0.0024
Uranus	-21048-11-18 00:43 J	-5966037.58	-5966037.47	-5966037.34	0.0142	0.0126
Uranus	-21047-11-22 17:31 J	-5965668.00	-5965667.77	-5965667.51	0.0141	0.0048
Uranus	-21046-11-28 00:00 J	-5965297.73	-5965297.50	-5965297.25	0.0141	0.0045
Mars	-21045-10-01 02:09 J	-5964989.57	-5964989.41	-5964989.24	0.1846	0.1069
Uranus	-21045-12-01 15:50 J	-5964927.91	-5964927.84	-5964927.76	0.0140	0.0134
Saturn	-21039-05-25 14:23 J	-5962927.13	-5962926.90	-5962926.67	0.0287	0.0009
Mars	-21038-04-04 10:04 J	-5962613.13	-5962613.08	-5962613.02	0.1676	0.1602

Jupiter	-21038-04-25 13:26 J	-5962592.16	-5962591.94	-5962591.72	0.0532	0.0195
Neptune	-21036-05-02 00:43 J	-5961854.58	-5961854.47	-5961854.33	0.0089	0.0078
Neptune	-21035-05-04 16:19 J	-5961487.04	-5961486.82	-5961486.58	0.0089	0.0034
Neptune	-21034-05-06 20:52 J	-5961119.88	-5961119.63	-5961119.37	0.0089	0.0007
Neptune	-21033-05-08 13:55 J	-5960752.11	-5960751.92	-5960751.69	0.0089	0.0052
Jupiter	-21026-04-30 15:50 J	-5958204.02	-5958203.84	-5958203.66	0.0533	0.0313
Jupiter	-21009-10-20 06:43 J	-5951821.32	-5951821.22	-5951821.09	0.0495	0.0426
Uranus	-21003-05-20 01:11 J	-5949783.58	-5949783.45	-5949783.32	0.0136	0.0115
Uranus	-21002-05-24 15:50 J	-5949414.07	-5949413.84	-5949413.60	0.0137	0.0050
Uranus	-21001-05-27 18:43 J	-5949044.95	-5949044.72	-5949044.48	0.0137	0.0041

21ST MILLENNIUM BCE

This is a list of transits of Moon in the 21st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-21000-06-01 10:48 J	-5948675.19	-5948675.05	-5948674.87	0.0138	0.0106		
Jupiter	-20997-10-25 03:36 J	-5947433.59	-5947433.35	-5947433.11	0.0494	0.0046		
Saturn	-20994-11-24 22:33 J	-5946307.80	-5946307.56	-5946307.31	0.0274	0.0006		
Saturn	-20980-05-26 15:07 J	-5941376.10	-5941375.87	-5941375.63	0.0287	0.0039		
Uranus	-20964-11-18 06:14 J	-5935356.28	-5935356.24	-5935356.17	0.0142	0.0138		
Pluto	-20963-02-18 02:09 J	-5935264.55	-5935264.41	-5935264.24	0.0076	0.0061		
Uranus	-20963-11-22 23:02 J	-5934986.77	-5934986.54	-5934986.28	0.0141	0.0037		
Uranus	-20962-11-28 05:45 J	-5934616.50	-5934616.26	-5934616.02	0.0141	0.0045		
Uranus	-20961-12-01 20:52 J	-5934246.72	-5934246.63	-5934246.52	0.0140	0.0129		

Mars	-20959-04-06 12:28 J	-5933756.15	-5933755.98	-5933755.80	0.1673	0.0132
Jupiter	-20955-04-25 03:21 J	-5932276.55	-5932276.36	-5932276.16	0.0532	0.0254
Neptune	-20954-11-01 10:33 J	-5931721.26	-5931721.06	-5931720.83	0.0088	0.0048
Neptune	-20953-11-02 16:33 J	-5931354.06	-5931353.81	-5931353.54	0.0088	0.0012
Neptune	-20952-11-05 12:28 J	-5930986.21	-5930985.98	-5930985.73	0.0088	0.0037
Neptune	-20951-11-07 18:14 J	-5930618.85	-5930618.74	-5930618.58	0.0088	0.0075
Jupiter	-20943-04-30 06:28 J	-5927888.43	-5927888.23	-5927888.02	0.0532	0.0252
Saturn	-20935-11-25 18:43 J	-5924756.97	-5924756.72	-5924756.46	0.0274	0.0053
Jupiter	-20926-10-21 01:55 J	-5921505.49	-5921505.42	-5921505.33	0.0495	0.0462
Saturn	-20921-05-27 10:33 J	-5919825.29	-5919825.06	-5919824.82	0.0287	0.0087
Uranus	-20919-05-20 11:02 J	-5919102.15	-5919102.04	-5919101.92	0.0136	0.0120
Uranus	-20918-05-25 01:40 J	-5918732.68	-5918732.43	-5918732.18	0.0137	0.0032
Uranus	-20917-05-28 05:02 J	-5918363.52	-5918363.29	-5918363.04	0.0137	0.0031
Uranus	-20916-06-01 21:07 J	-5917993.72	-5917993.62	-5917993.49	0.0138	0.0122
Jupiter	-20914-10-25 08:38 J	-5917118.38	-5917118.14	-5917117.90	0.0494	0.0014
Saturn	-20906-11-19 19:55 J	-5914170.76	-5914170.67	-5914170.55	0.0272	0.0245
Jupiter	-20902-10-30 03:50 J	-5912730.38	-5912730.34	-5912730.30	0.0494	0.0484
Saturn	-20892-05-21 07:55 J	-5909239.28	-5909239.17	-5909239.04	0.0289	0.0244
Mars	-20880-04-08 10:33 J	-5904899.17	-5904899.06	-5904898.95	0.1671	0.1303
Uranus	-20880-11-18 13:55 J	-5904675.04	-5904674.92	-5904674.76	0.0142	0.0119
Uranus	-20879-11-23 07:26 J	-5904305.43	-5904305.19	-5904304.94	0.0141	0.0043
Uranus	-20878-11-28 14:09 J	-5903935.14	-5903934.91	-5903934.66	0.0141	0.0051
Uranus	-20877-12-02 05:02 J	-5903565.32	-5903565.29	-5903565.21	0.0140	0.0138
Saturn	-20876-11-26 12:43 J	-5903206.21	-5903205.97	-5903205.73	0.0274	0.0106
Jupiter	-20872-04-24 13:26 J	-5901961.12	-5901960.94	-5901960.76	0.0531	0.0333
Neptune	-20871-05-03 22:33 J	-5901586.75	-5901586.56	-5901586.34	0.0089	0.0051
Neptune	-20870-05-06 16:19 J	-5901219.07	-5901218.82	-5901218.57	0.0089	0.0017
Neptune	-20869-05-07 20:09 J	-5900851.88	-5900851.66	-5900851.42	0.0089	0.0036
Neptune	-20868-05-10 11:16 J	-5900484.17	-5900484.03	-5900483.84	0.0089	0.0070
Saturn	-20862-05-29 03:36 J	-5898274.57	-5898274.35	-5898274.13	0.0287	0.0134

Jupiter	-20860-04-29 06:00 J	-5897573.46	-5897573.25	-5897573.04	0.0532	0.0170
Saturn	-20847-11-21 00:14 J	-5892619.65	-5892619.49	-5892619.30	0.0272	0.0187
Uranus	-20835-05-20 21:50 J	-5888420.73	-5888420.59	-5888420.42	0.0136	0.0107
Uranus	-20834-05-25 11:16 J	-5888051.26	-5888051.03	-5888050.77	0.0137	0.0041
Saturn	-20833-05-22 09:36 J	-5887688.27	-5887688.10	-5887687.92	0.0289	0.0193
Uranus	-20833-05-28 15:36 J	-5887682.07	-5887681.85	-5887681.62	0.0137	0.0050
Uranus	-20832-06-02 06:28 J	-5887312.35	-5887312.23	-5887312.07	0.0138	0.0114
Jupiter	-20831-10-24 19:55 J	-5886802.90	-5886802.67	-5886802.44	0.0495	0.0048
Jupiter	-20819-10-29 06:00 J	-5882415.38	-5882415.25	-5882415.11	0.0494	0.0410
Saturn	-20817-11-27 11:02 J	-5881655.23	-5881655.04	-5881654.83	0.0274	0.0167
Saturn	-20803-05-30 00:57 J	-5876723.63	-5876723.46	-5876723.28	0.0287	0.0192
Pluto	-20803-08-16 00:00 J	-5876645.72	-5876645.50	-5876645.26	0.0068	0.0026
Uranus	-20796-11-19 00:14 J	-5873993.59	-5873993.49	-5873993.36	0.0142	0.0128
Uranus	-20795-11-23 18:00 J	-5873623.99	-5873623.75	-5873623.49	0.0141	0.0027
Uranus	-20794-11-29 00:00 J	-5873253.73	-5873253.50	-5873253.25	0.0141	0.0053
Uranus	-20793-12-02 14:52 J	-5872883.91	-5872883.88	-5872883.81	0.0140	0.0137
Neptune	-20790-10-31 13:55 J	-5871821.03	-5871820.92	-5871820.75	0.0088	0.0075
Jupiter	-20789-04-23 14:23 J	-5871646.04	-5871645.90	-5871645.76	0.0532	0.0413
Neptune	-20789-11-02 10:04 J	-5871453.32	-5871453.08	-5871452.81	0.0088	0.0025
Neptune	-20788-11-04 17:16 J	-5871086.03	-5871085.78	-5871085.53	0.0088	0.0011
Saturn	-20788-11-22 06:14 J	-5871068.46	-5871068.24	-5871068.01	0.0273	0.0121
Neptune	-20787-11-07 09:36 J	-5870718.28	-5870718.10	-5870717.88	0.0088	0.0060
Jupiter	-20777-04-28 23:16 J	-5867257.75	-5867257.53	-5867257.30	0.0532	0.0114
Saturn	-20774-05-24 12:57 J	-5866137.17	-5866136.96	-5866136.74	0.0289	0.0131
Mars	-20761-10-01 04:33 J	-5861258.40	-5861258.31	-5861258.22	0.1840	0.1597
Saturn	-20758-11-29 19:26 J	-5860103.80	-5860103.69	-5860103.56	0.0274	0.0235
Mars	-20754-04-05 00:43 J	-5858881.58	-5858881.47	-5858881.36	0.1680	0.1366
Uranus	-20751-05-21 06:57 J	-5857739.34	-5857739.21	-5857739.05	0.0137	0.0111
Uranus	-20750-05-25 20:09 J	-5857369.91	-5857369.66	-5857369.41	0.0137	0.0024
Uranus	-20749-05-29 01:11 J	-5857000.67	-5857000.45	-5857000.21	0.0138	0.0039

Uranus	-20748-06-02 15:50 J	-5856630.91	-5856630.84	-5856630.74	0.0138	0.0129
Jupiter	-20748-10-24 00:43 J	-5856487.71	-5856487.47	-5856487.22	0.0495	0.0102
Saturn	-20744-05-31 06:28 J	-5855172.31	-5855172.23	-5855172.11	0.0287	0.0257
Jupiter	-20736-10-28 14:09 J	-5852100.07	-5852099.91	-5852099.75	0.0494	0.0352
Saturn	-20729-11-23 10:19 J	-5849517.32	-5849517.07	-5849516.81	0.0273	0.0049
Pluto	-20717-02-18 22:19 J	-5845412.82	-5845412.57	-5845412.31	0.0077	0.0026
Saturn	-20715-05-25 14:52 J	-5844586.13	-5844585.88	-5844585.64	0.0289	0.0063
Uranus	-20712-11-19 10:33 J	-5843312.23	-5843312.06	-5843311.89	0.0142	0.0107
Uranus	-20711-11-24 04:48 J	-5842942.54	-5842942.30	-5842942.05	0.0141	0.0033
Uranus	-20710-11-29 10:33 J	-5842572.28	-5842572.06	-5842571.81	0.0141	0.0062
Neptune	-20707-05-03 17:45 J	-5841685.88	-5841685.76	-5841685.60	0.0089	0.0075
Jupiter	-20706-04-24 05:02 J	-5841330.38	-5841330.29	-5841330.19	0.0531	0.0484
Neptune	-20706-05-05 22:33 J	-5841318.79	-5841318.56	-5841318.32	0.0089	0.0031
Neptune	-20705-05-07 14:09 J	-5840951.16	-5840950.91	-5840950.65	0.0089	0.0010
Neptune	-20704-05-09 22:04 J	-5840583.77	-5840583.58	-5840583.38	0.0089	0.0054
Jupiter	-20694-04-28 16:33 J	-5836943.04	-5836942.81	-5836942.57	0.0532	0.0015
Mars	-20682-10-04 22:33 J	-5832400.65	-5832400.56	-5832400.47	0.1844	0.1601
Mars	-20675-04-07 15:21 J	-5830024.05	-5830023.86	-5830023.66	0.1677	0.0420
Saturn	-20670-11-25 18:14 J	-5827965.99	-5827965.74	-5827965.48	0.0273	0.0031
Uranus	-20667-05-21 16:04 J	-5827057.98	-5827057.83	-5827057.65	0.0137	0.0101
Uranus	-20666-05-26 03:21 J	-5826688.60	-5826688.36	-5826688.10	0.0137	0.0034
Uranus	-20665-05-29 09:21 J	-5826319.32	-5826319.11	-5826318.88	0.0138	0.0055
Jupiter	-20665-10-23 05:31 J	-5826172.48	-5826172.27	-5826172.05	0.0495	0.0169
Uranus	-20664-06-02 22:33 J	-5825949.68	-5825949.56	-5825949.42	0.0138	0.0118
Saturn	-20656-05-26 20:52 J	-5823034.87	-5823034.63	-5823034.39	0.0288	0.0015
Jupiter	-20653-10-27 17:02 J	-5821784.99	-5821784.79	-5821784.58	0.0494	0.0255
Saturn	-20641-11-19 22:33 J	-5817378.69	-5817378.56	-5817378.43	0.0271	0.0230
Uranus	-20628-11-19 19:55 J	-5812630.80	-5812630.67	-5812630.51	0.0142	0.0117
Saturn	-20627-05-21 20:38 J	-5812447.67	-5812447.64	-5812447.60	0.0290	0.0287
Uranus	-20627-11-24 15:07 J	-5812261.12	-5812260.87	-5812260.62	0.0141	0.0016

Uranus	-20626-11-29 19:55 J	-5811890.89	-5811890.67	-5811890.42	0.0141	0.0062
Neptune	-20625-11-01 14:09 J	-5811553.11	-5811552.91	-5811552.67	0.0088	0.0046
Neptune	-20624-11-04 06:43 J	-5811185.49	-5811185.22	-5811184.95	0.0088	0.0009
Neptune	-20623-11-06 18:00 J	-5810817.96	-5810817.75	-5810817.51	0.0088	0.0040
Neptune	-20622-11-09 05:16 J	-5810450.38	-5810450.28	-5810450.11	0.0088	0.0076
Jupiter	-20611-04-27 20:38 J	-5806627.86	-5806627.64	-5806627.42	0.0532	0.0090
Saturn	-20611-11-27 09:50 J	-5806414.30	-5806414.09	-5806413.86	0.0274	0.0117
Jupiter	-20599-05-02 18:57 J	-5802239.79	-5802239.71	-5802239.62	0.0532	0.0496
Saturn	-20597-05-28 12:14 J	-5801483.21	-5801482.99	-5801482.77	0.0288	0.0107
Uranus	-20583-05-21 22:48 J	-5796376.69	-5796376.55	-5796376.38	0.0137	0.0105
Uranus	-20582-05-26 09:07 J	-5796007.37	-5796007.12	-5796006.86	0.0137	0.0022
Jupiter	-20582-10-23 06:00 J	-5795857.45	-5795857.25	-5795857.04	0.0495	0.0261
Saturn	-20582-11-22 12:28 J	-5795827.19	-5795826.98	-5795826.76	0.0272	0.0145
Uranus	-20581-05-29 16:48 J	-5795638.03	-5795637.80	-5795637.57	0.0138	0.0043
Uranus	-20580-06-03 04:33 J	-5795268.37	-5795268.31	-5795268.22	0.0138	0.0132
Jupiter	-20570-10-27 13:11 J	-5791470.16	-5791469.95	-5791469.72	0.0494	0.0175
Saturn	-20568-05-23 11:16 J	-5790896.21	-5790896.03	-5790895.84	0.0290	0.0189
Pluto	-20557-08-15 23:16 J	-5786793.72	-5786793.53	-5786793.31	0.0068	0.0043
Pluto	-20556-08-17 14:09 J	-5786427.03	-5786426.91	-5786426.72	0.0068	0.0053
Saturn	-20552-11-29 06:00 J	-5784862.40	-5784862.25	-5784862.09	0.0274	0.0207
Uranus	-20544-11-20 01:40 J	-5781949.60	-5781949.43	-5781949.23	0.0142	0.0100
Uranus	-20543-11-24 22:19 J	-5781579.81	-5781579.57	-5781579.32	0.0141	0.0026
Neptune	-20542-05-05 15:21 J	-5781418.08	-5781417.86	-5781417.64	0.0089	0.0049
Uranus	-20542-11-30 02:52 J	-5781209.61	-5781209.38	-5781209.15	0.0141	0.0069
Neptune	-20541-05-06 23:31 J	-5781050.76	-5781050.52	-5781050.28	0.0089	0.0015
Neptune	-20540-05-09 09:21 J	-5780683.33	-5780683.11	-5780682.85	0.0089	0.0037
Neptune	-20539-05-11 22:48 J	-5780315.67	-5780315.55	-5780315.38	0.0089	0.0072
Saturn	-20538-05-31 07:55 J	-5779931.33	-5779931.17	-5779931.00	0.0287	0.0202
Jupiter	-20528-04-26 19:11 J	-5776312.92	-5776312.70	-5776312.47	0.0532	0.0182
Saturn	-20523-11-23 23:16 J	-5774275.78	-5774275.53	-5774275.27	0.0272	0.0061

Jupiter	-20516-05-01 13:26 J	-5771925.09	-5771924.94	-5771924.78	0.0532	0.0379
Saturn	-20509-05-25 00:43 J	-5769344.71	-5769344.47	-5769344.24	0.0289	0.0093
Uranus	-20499-05-22 07:26 J	-5765695.34	-5765695.19	-5765695.00	0.0136	0.0098
Jupiter	-20499-10-22 02:23 J	-5765542.56	-5765542.40	-5765542.22	0.0495	0.0336
Uranus	-20498-05-26 15:50 J	-5765326.08	-5765325.84	-5765325.57	0.0137	0.0029
Uranus	-20497-05-30 00:28 J	-5764956.70	-5764956.48	-5764956.26	0.0137	0.0058
Uranus	-20496-06-03 10:33 J	-5764587.17	-5764587.06	-5764586.92	0.0138	0.0120
Jupiter	-20487-10-26 22:04 J	-5761154.81	-5761154.58	-5761154.35	0.0494	0.0090
Jupiter	-20475-10-30 23:31 J	-5756767.58	-5756767.52	-5756767.45	0.0494	0.0472
Pluto	-20470-02-20 19:55 J	-5755193.92	-5755193.67	-5755193.41	0.0076	0.0022
Mars	-20470-04-06 00:28 J	-5755149.61	-5755149.48	-5755149.35	0.1685	0.1129
Saturn	-20464-11-25 10:33 J	-5752724.31	-5752724.06	-5752723.81	0.0273	0.0024
Neptune	-20461-11-01 03:50 J	-5751652.48	-5751652.34	-5751652.16	0.0088	0.0071
Neptune	-20460-11-03 16:04 J	-5751285.06	-5751284.83	-5751284.57	0.0088	0.0024
Uranus	-20460-11-20 06:57 J	-5751268.36	-5751268.21	-5751268.04	0.0142	0.0112
Neptune	-20459-11-06 02:38 J	-5750917.65	-5750917.39	-5750917.12	0.0088	0.0014
Uranus	-20459-11-25 04:48 J	-5750898.55	-5750898.30	-5750898.05	0.0142	0.0012
Neptune	-20458-11-08 19:11 J	-5750549.86	-5750549.70	-5750549.50	0.0088	0.0062
Uranus	-20458-11-30 07:26 J	-5750528.41	-5750528.19	-5750527.93	0.0141	0.0064
Saturn	-20450-05-27 15:07 J	-5747793.11	-5747792.87	-5747792.63	0.0289	0.0006
Jupiter	-20445-04-25 12:57 J	-5745998.13	-5745997.96	-5745997.78	0.0531	0.0310
Saturn	-20435-11-20 15:50 J	-5742136.94	-5742136.84	-5742136.71	0.0271	0.0241
Jupiter	-20433-04-30 12:14 J	-5741610.20	-5741609.99	-5741609.78	0.0532	0.0256
Jupiter	-20416-10-21 09:50 J	-5735227.21	-5735227.09	-5735226.96	0.0495	0.0415
Uranus	-20415-05-22 16:19 J	-5735013.96	-5735013.82	-5735013.63	0.0136	0.0098
Uranus	-20414-05-27 00:14 J	-5734644.74	-5734644.49	-5734644.23	0.0137	0.0017
Uranus	-20413-05-30 10:04 J	-5734275.30	-5734275.08	-5734274.85	0.0137	0.0049
Uranus	-20412-06-03 19:11 J	-5733905.71	-5733905.70	-5733905.65	0.0138	0.0137
Saturn	-20405-11-27 00:00 J	-5731172.72	-5731172.50	-5731172.27	0.0273	0.0101
Jupiter	-20404-10-25 14:09 J	-5730840.15	-5730839.91	-5730839.67	0.0494	0.0003

Mars	-20398-10-05 02:23 J	-5728669.55	-5728669.40	-5728669.24	0.1838	0.1119
Jupiter	-20392-10-30 08:52 J	-5726452.26	-5726452.13	-5726451.99	0.0494	0.0400
Mars	-20391-04-08 05:02 J	-5726292.48	-5726292.29	-5726292.11	0.1682	0.0502
Saturn	-20391-05-29 08:52 J	-5726241.35	-5726241.13	-5726240.91	0.0288	0.0095
Neptune	-20378-05-05 01:40 J	-5721517.55	-5721517.43	-5721517.28	0.0089	0.0074
Neptune	-20377-05-06 11:31 J	-5721150.26	-5721150.02	-5721149.77	0.0089	0.0031
Neptune	-20376-05-09 01:11 J	-5720782.69	-5720782.45	-5720782.20	0.0089	0.0012
Uranus	-20376-11-20 12:28 J	-5720587.16	-5720586.98	-5720586.76	0.0142	0.0096
Saturn	-20376-11-21 22:48 J	-5720585.75	-5720585.55	-5720585.35	0.0272	0.0168
Neptune	-20375-05-11 05:31 J	-5720415.45	-5720415.27	-5720415.04	0.0089	0.0055
Uranus	-20375-11-25 12:00 J	-5720217.24	-5720217.00	-5720216.75	0.0142	0.0023
Uranus	-20374-11-30 13:40 J	-5719847.14	-5719846.93	-5719846.68	0.0141	0.0075
Jupiter	-20362-04-25 14:38 J	-5715683.03	-5715682.89	-5715682.74	0.0531	0.0410
Saturn	-20362-05-23 21:21 J	-5715654.77	-5715654.61	-5715654.44	0.0290	0.0218
Jupiter	-20350-04-30 09:50 J	-5711295.30	-5711295.09	-5711294.87	0.0532	0.0171
Saturn	-20346-11-29 11:45 J	-5709621.19	-5709621.01	-5709620.81	0.0274	0.0170
Jupiter	-20333-10-20 05:31 J	-5704912.30	-5704912.27	-5704912.23	0.0496	0.0489
Saturn	-20332-05-31 00:00 J	-5704689.68	-5704689.50	-5704689.31	0.0288	0.0176
Uranus	-20331-05-23 03:36 J	-5704332.51	-5704332.35	-5704332.15	0.0136	0.0090
Uranus	-20330-05-27 09:50 J	-5703963.34	-5703963.09	-5703962.83	0.0137	0.0020
Uranus	-20329-05-30 20:23 J	-5703593.85	-5703593.65	-5703593.42	0.0137	0.0066
Uranus	-20328-06-04 04:48 J	-5703224.39	-5703224.30	-5703224.19	0.0138	0.0127
Jupiter	-20321-10-25 01:26 J	-5700524.67	-5700524.44	-5700524.21	0.0495	0.0070
Saturn	-20317-11-22 23:31 J	-5699034.75	-5699034.52	-5699034.28	0.0272	0.0105
Pluto	-20310-08-18 15:50 J	-5696575.08	-5696574.84	-5696574.58	0.0068	0.0022
Jupiter	-20309-10-29 10:48 J	-5696137.23	-5696137.05	-5696136.86	0.0494	0.0328
Saturn	-20303-05-25 04:04 J	-5694103.54	-5694103.33	-5694103.11	0.0289	0.0140
Neptune	-20296-11-02 22:19 J	-5691384.78	-5691384.57	-5691384.31	0.0088	0.0043
Neptune	-20295-11-05 16:48 J	-5691017.05	-5691016.80	-5691016.54	0.0088	0.0009
Neptune	-20294-11-07 23:02 J	-5690649.77	-5690649.54	-5690649.30	0.0088	0.0041

Neptune	-20293-11-09 18:14 J	-5690281.84	-5690281.74	-5690281.58	0.0088	0.0077
Uranus	-20292-11-20 21:50 J	-5689905.75	-5689905.59	-5689905.38	0.0142	0.0104
Uranus	-20291-11-25 22:19 J	-5689535.82	-5689535.57	-5689535.32	0.0142	0.0005
Uranus	-20290-11-30 22:33 J	-5689165.78	-5689165.56	-5689165.31	0.0141	0.0069
Saturn	-20287-11-30 14:38 J	-5688070.02	-5688069.89	-5688069.75	0.0274	0.0228
Jupiter	-20279-04-24 13:26 J	-5685368.02	-5685367.94	-5685367.86	0.0531	0.0493
Saturn	-20273-06-01 06:43 J	-5683138.33	-5683138.22	-5683138.08	0.0288	0.0249
Jupiter	-20267-04-29 18:14 J	-5680979.96	-5680979.74	-5680979.51	0.0531	0.0085
Saturn	-20258-11-25 01:40 J	-5677483.67	-5677483.43	-5677483.19	0.0272	0.0048
Uranus	-20247-05-23 13:55 J	-5673651.10	-5673650.92	-5673650.73	0.0137	0.0087
Uranus	-20246-05-27 19:26 J	-5673281.95	-5673281.69	-5673281.43	0.0137	0.0009
Uranus	-20245-05-31 07:40 J	-5672912.40	-5672912.18	-5672911.96	0.0137	0.0058
Saturn	-20244-05-26 10:33 J	-5672552.28	-5672552.06	-5672551.83	0.0289	0.0068
Jupiter	-20238-10-25 05:02 J	-5670209.53	-5670209.29	-5670209.06	0.0495	0.0135
Jupiter	-20226-10-29 18:00 J	-5665821.93	-5665821.75	-5665821.55	0.0494	0.0270
Pluto	-20223-02-22 11:16 J	-5664975.17	-5664975.03	-5664974.83	0.0076	0.0058
Neptune	-20213-05-06 02:23 J	-5661249.60	-5661249.40	-5661249.18	0.0089	0.0048
Neptune	-20212-05-08 07:26 J	-5660882.44	-5660882.19	-5660881.93	0.0089	0.0014
Neptune	-20211-05-11 00:14 J	-5660514.70	-5660514.49	-5660514.24	0.0089	0.0039
Neptune	-20210-05-13 04:04 J	-5660147.46	-5660147.33	-5660147.17	0.0089	0.0072
Uranus	-20208-11-21 08:23 J	-5659224.34	-5659224.15	-5659223.91	0.0142	0.0085
Uranus	-20207-11-26 10:04 J	-5658854.32	-5658854.08	-5658853.83	0.0142	0.0013
Uranus	-20206-12-01 09:36 J	-5658484.31	-5658484.10	-5658483.88	0.0141	0.0084
Saturn	-20199-11-26 03:36 J	-5655932.59	-5655932.35	-5655932.11	0.0272	0.0003
Mars	-20186-04-07 10:33 J	-5651417.23	-5651417.06	-5651416.89	0.1690	0.0671
Saturn	-20185-05-27 16:33 J	-5651001.04	-5651000.81	-5651000.58	0.0289	0.0005
Jupiter	-20184-04-28 16:33 J	-5650665.05	-5650664.81	-5650664.58	0.0531	0.0009
Jupiter	-20172-05-03 22:33 J	-5646276.60	-5646276.56	-5646276.51	0.0532	0.0520
Uranus	-20163-05-24 00:14 J	-5642969.67	-5642969.49	-5642969.28	0.0137	0.0082
Uranus	-20162-05-28 04:33 J	-5642600.56	-5642600.31	-5642600.05	0.0137	0.0010

Uranus	-20161-05-31 17:16 J	-5642230.97	-5642230.78	-5642230.56	0.0137	0.0074
Uranus	-20160-06-05 00:00 J	-5641861.54	-5641861.50	-5641861.45	0.0138	0.0135
Jupiter	-20155-10-24 12:28 J	-5639894.18	-5639893.98	-5639893.77	0.0496	0.0205
Jupiter	-20143-10-29 06:43 J	-5635506.43	-5635506.22	-5635505.99	0.0495	0.0213
Saturn	-20140-11-27 00:57 J	-5634381.70	-5634381.46	-5634381.20	0.0272	0.0048
Neptune	-20132-11-02 12:14 J	-5631484.11	-5631483.99	-5631483.81	0.0088	0.0071
Neptune	-20131-11-04 18:43 J	-5631116.97	-5631116.72	-5631116.46	0.0088	0.0024
Neptune	-20130-11-07 14:38 J	-5630749.14	-5630748.89	-5630748.62	0.0088	0.0014
Neptune	-20129-11-08 20:23 J	-5630381.81	-5630381.65	-5630381.45	0.0088	0.0062
Saturn	-20126-05-29 17:16 J	-5629450.02	-5629449.78	-5629449.55	0.0289	0.0050
Uranus	-20124-11-21 20:09 J	-5628542.85	-5628542.66	-5628542.44	0.0142	0.0091
Uranus	-20123-11-26 22:33 J	-5628172.81	-5628172.56	-5628172.31	0.0142	0.0008
Uranus	-20122-12-01 20:09 J	-5627802.86	-5627802.66	-5627802.42	0.0141	0.0080
Mars	-20114-10-04 06:14 J	-5624939.46	-5624939.24	-5624939.02	0.1830	0.0007
Saturn	-20111-11-21 02:09 J	-5623795.50	-5623795.41	-5623795.29	0.0270	0.0244
Mars	-20107-04-09 09:36 J	-5622560.25	-5622560.10	-5622559.95	0.1687	0.0859
Jupiter	-20101-04-28 09:50 J	-5620349.31	-5620349.09	-5620348.87	0.0531	0.0044
Jupiter	-20089-05-03 06:14 J	-5615961.36	-5615961.24	-5615961.11	0.0531	0.0453
Saturn	-20081-11-27 16:19 J	-5612831.06	-5612830.82	-5612830.57	0.0272	0.0089
Uranus	-20079-05-24 08:23 J	-5612288.34	-5612288.15	-5612287.94	0.0136	0.0078
Uranus	-20078-05-28 12:00 J	-5611919.25	-5611919.00	-5611918.74	0.0137	0.0003
Uranus	-20077-06-01 02:23 J	-5611549.61	-5611549.40	-5611549.18	0.0137	0.0065
Jupiter	-20072-10-24 05:16 J	-5609578.49	-5609578.28	-5609578.07	0.0496	0.0252
Saturn	-20067-05-30 10:04 J	-5607899.31	-5607899.08	-5607898.84	0.0289	0.0100
Pluto	-20063-08-20 02:52 J	-5606356.64	-5606356.38	-5606356.12	0.0068	0.0006
Jupiter	-20060-10-28 12:28 J	-5605191.20	-5605190.98	-5605190.76	0.0495	0.0173
Saturn	-20052-11-22 01:40 J	-5602244.59	-5602244.43	-5602244.27	0.0270	0.0203
Neptune	-20049-05-05 07:40 J	-5601349.30	-5601349.18	-5601349.01	0.0089	0.0073
Neptune	-20048-05-08 01:11 J	-5600981.67	-5600981.45	-5600981.20	0.0089	0.0031
Neptune	-20047-05-10 05:02 J	-5600614.53	-5600614.29	-5600614.04	0.0089	0.0013

Neptune	-20046-05-12 21:07 J	-5600246.81	-5600246.62	-5600246.41	0.0089	0.0055
Uranus	-20040-11-22 06:00 J	-5597861.47	-5597861.25	-5597861.02	0.0142	0.0073
Uranus	-20039-11-27 09:36 J	-5597491.35	-5597491.10	-5597490.85	0.0142	0.0003
Saturn	-20038-05-24 10:04 J	-5597313.19	-5597313.08	-5597312.94	0.0292	0.0248
Uranus	-20038-12-02 06:43 J	-5597121.40	-5597121.22	-5597121.01	0.0141	0.0096
Saturn	-20022-11-29 07:26 J	-5591280.40	-5591280.19	-5591279.96	0.0272	0.0131
Jupiter	-20018-04-28 15:07 J	-5590034.11	-5590033.87	-5590033.64	0.0530	0.0112
Saturn	-20008-05-31 02:09 J	-5586348.62	-5586348.41	-5586348.21	0.0290	0.0150
Jupiter	-20006-05-03 13:11 J	-5585646.10	-5585645.95	-5585645.80	0.0531	0.0377

20TH MILLENNIUM BCE

This is a list of transits of Moon in the 20th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-19995-05-24 17:02 J	-5581606.98	-5581606.79	-5581606.57	0.0136	0.0077		
Uranus	-19994-05-28 19:40 J	-5581237.93	-5581237.68	-5581237.43	0.0137	0.0004		
Uranus	-19993-06-01 10:04 J	-5580868.27	-5580868.08	-5580867.86	0.0137	0.0078		
Saturn	-19993-11-23 01:11 J	-5580693.64	-5580693.45	-5580693.23	0.0270	0.0157		
Jupiter	-19989-10-23 10:19 J	-5579263.25	-5579263.07	-5579262.88	0.0496	0.0297		
Saturn	-19979-05-25 08:52 J	-5575762.30	-5575762.13	-5575761.94	0.0292	0.0196		
Pluto	-19977-02-22 16:04 J	-5575123.91	-5575123.83	-5575123.69	0.0077	0.0070		
Jupiter	-19977-10-28 03:36 J	-5574875.57	-5574875.35	-5574875.12	0.0495	0.0119		
Pluto	-19976-02-23 23:02 J	-5574756.61	-5574756.54	-5574756.43	0.0076	0.0072		
Neptune	-19967-11-04 09:21 J	-5571216.32	-5571216.11	-5571215.86	0.0088	0.0044		

Neptune	-19966-11-06 16:19 J	-5570849.07	-5570848.82	-5570848.56	0.0088	0.0009
Neptune	-19965-11-08 10:04 J	-5570481.32	-5570481.08	-5570480.84	0.0088	0.0040
Neptune	-19964-11-10 20:09 J	-5570113.79	-5570113.66	-5570113.53	0.0088	0.0076
Saturn	-19963-11-30 07:26 J	-5569729.37	-5569729.19	-5569729.01	0.0272	0.0179
Uranus	-19956-11-22 13:26 J	-5567180.16	-5567179.94	-5567179.73	0.0142	0.0082
Uranus	-19955-11-27 18:00 J	-5566810.00	-5566809.75	-5566809.50	0.0142	0.0017
Uranus	-19954-12-02 13:40 J	-5566440.12	-5566439.93	-5566439.70	0.0141	0.0088
Saturn	-19949-06-01 00:14 J	-5564797.64	-5564797.49	-5564797.31	0.0290	0.0206
Jupiter	-19935-04-28 00:28 J	-5559718.68	-5559718.48	-5559718.27	0.0531	0.0177
Saturn	-19934-11-24 21:21 J	-5559142.84	-5559142.61	-5559142.37	0.0270	0.0106
Jupiter	-19923-05-03 06:14 J	-5555330.43	-5555330.24	-5555330.05	0.0531	0.0315
Saturn	-19920-05-26 02:38 J	-5554211.61	-5554211.39	-5554211.17	0.0292	0.0138
Uranus	-19911-05-25 01:40 J	-5550925.63	-5550925.43	-5550925.20	0.0136	0.0071
Uranus	-19910-05-29 03:50 J	-5550556.59	-5550556.34	-5550556.08	0.0137	0.0003
Uranus	-19909-06-01 19:11 J	-5550186.90	-5550186.70	-5550186.48	0.0137	0.0070
Jupiter	-19906-10-23 23:02 J	-5548947.69	-5548947.54	-5548947.37	0.0496	0.0368
Saturn	-19904-12-01 12:14 J	-5548178.11	-5548177.99	-5548177.86	0.0272	0.0233
Mars	-19902-04-08 05:02 J	-5547685.48	-5547685.29	-5547685.09	0.1695	0.0453
Jupiter	-19894-10-28 07:11 J	-5544560.44	-5544560.20	-5544559.96	0.0496	0.0075
Saturn	-19890-06-03 04:04 J	-5543246.42	-5543246.33	-5543246.24	0.0290	0.0267
Neptune	-19884-05-07 05:31 J	-5541081.47	-5541081.27	-5541081.05	0.0089	0.0048
Neptune	-19883-05-09 21:36 J	-5540713.85	-5540713.60	-5540713.34	0.0089	0.0015
Neptune	-19882-05-12 04:19 J	-5540346.52	-5540346.32	-5540346.08	0.0089	0.0038
Neptune	-19881-05-13 16:04 J	-5539978.97	-5539978.83	-5539978.66	0.0089	0.0071
Saturn	-19875-11-25 19:55 J	-5537591.92	-5537591.67	-5537591.41	0.0270	0.0048
Uranus	-19872-11-22 19:11 J	-5536498.92	-5536498.70	-5536498.46	0.0142	0.0068
Uranus	-19871-11-28 01:40 J	-5536128.68	-5536128.43	-5536128.18	0.0142	0.0005
Uranus	-19870-12-02 21:07 J	-5535758.80	-5535758.62	-5535758.43	0.0141	0.0103
Saturn	-19861-05-26 22:04 J	-5532660.81	-5532660.58	-5532660.34	0.0292	0.0075
Jupiter	-19852-04-27 15:21 J	-5529403.07	-5529402.86	-5529402.65	0.0530	0.0237

Jupiter	-19840-05-02 03:36 J	-5525015.55	-5525015.35	-5525015.14	0.0530	0.0227
Mars	-19830-10-03 19:11 J	-5521208.87	-5521208.70	-5521208.53	0.1822	0.0786
Uranus	-19828-05-20 22:33 J	-5520613.58	-5520613.56	-5520613.50	0.0136	0.0134
Uranus	-19827-05-25 13:26 J	-5520244.14	-5520243.94	-5520243.71	0.0136	0.0069
Uranus	-19826-05-29 15:07 J	-5519875.12	-5519874.87	-5519874.62	0.0137	0.0005
Uranus	-19825-06-02 06:14 J	-5519505.42	-5519505.24	-5519505.03	0.0137	0.0084
Mars	-19823-04-10 17:02 J	-5518827.93	-5518827.79	-5518827.66	0.1691	0.1157
Jupiter	-19823-10-23 01:11 J	-5518632.57	-5518632.45	-5518632.32	0.0496	0.0421
Pluto	-19816-08-21 10:48 J	-5516138.30	-5516138.05	-5516137.79	0.0068	0.0005
Saturn	-19816-11-27 02:52 J	-5516040.62	-5516040.38	-5516040.14	0.0270	0.0022
Jupiter	-19811-10-27 18:57 J	-5514244.94	-5514244.71	-5514244.48	0.0496	0.0028
Neptune	-19803-11-03 10:04 J	-5511316.20	-5511316.08	-5511315.90	0.0088	0.0072
Saturn	-19802-05-29 03:50 J	-5511109.58	-5511109.34	-5511109.11	0.0292	0.0004
Neptune	-19802-11-06 02:52 J	-5510948.63	-5510948.38	-5510948.11	0.0088	0.0027
Neptune	-19801-11-07 14:09 J	-5510581.15	-5510580.91	-5510580.65	0.0088	0.0013
Neptune	-19800-11-10 02:23 J	-5510213.60	-5510213.40	-5510213.20	0.0088	0.0059
Jupiter	-19799-11-01 02:23 J	-5509857.45	-5509857.40	-5509857.32	0.0495	0.0479
Uranus	-19788-11-23 04:19 J	-5505817.54	-5505817.32	-5505817.09	0.0142	0.0073
Saturn	-19787-11-22 07:55 J	-5505453.30	-5505453.17	-5505453.03	0.0269	0.0227
Uranus	-19787-11-28 11:02 J	-5505447.28	-5505447.04	-5505446.78	0.0142	0.0024
Uranus	-19786-12-03 05:16 J	-5505077.47	-5505077.28	-5505077.07	0.0141	0.0093
Jupiter	-19769-04-26 08:09 J	-5499088.33	-5499088.16	-5499087.98	0.0530	0.0345
Jupiter	-19757-05-01 13:11 J	-5494700.17	-5494699.95	-5494699.73	0.0531	0.0132
Saturn	-19757-11-28 16:48 J	-5494489.02	-5494488.80	-5494488.57	0.0271	0.0099
Mars	-19751-10-06 18:57 J	-5492350.74	-5492350.71	-5492350.67	0.1827	0.1802
Uranus	-19743-05-26 00:43 J	-5489562.69	-5489562.47	-5489562.24	0.0136	0.0060
Saturn	-19743-05-30 15:50 J	-5489558.06	-5489557.84	-5489557.62	0.0291	0.0081
Uranus	-19742-05-30 02:09 J	-5489193.66	-5489193.41	-5489193.16	0.0137	0.0012
Uranus	-19741-06-02 17:45 J	-5488823.94	-5488823.76	-5488823.54	0.0137	0.0080
Pluto	-19730-02-24 00:57 J	-5484905.53	-5484905.46	-5484905.33	0.0077	0.0071

Jupiter	-19728-10-26 17:02 J	-5483930.03	-5483929.79	-5483929.54	0.0496	0.0061
Saturn	-19728-11-23 13:40 J	-5483902.13	-5483901.93	-5483901.70	0.0269	0.0155
Neptune	-19720-05-06 20:09 J	-5481180.78	-5481180.66	-5481180.50	0.0089	0.0074
Neptune	-19719-05-09 03:36 J	-5480813.56	-5480813.35	-5480813.10	0.0089	0.0034
Neptune	-19718-05-11 14:38 J	-5480446.14	-5480445.89	-5480445.62	0.0089	0.0012
Neptune	-19717-05-13 02:52 J	-5480078.56	-5480078.38	-5480078.16	0.0089	0.0052
Jupiter	-19716-10-31 05:02 J	-5479542.41	-5479542.29	-5479542.16	0.0495	0.0413
Saturn	-19714-05-25 01:26 J	-5478971.57	-5478971.44	-5478971.30	0.0293	0.0244
Uranus	-19704-11-23 16:04 J	-5475136.05	-5475135.83	-5475135.57	0.0142	0.0058
Uranus	-19703-11-28 23:45 J	-5474765.75	-5474765.51	-5474765.25	0.0142	0.0017
Uranus	-19702-12-03 17:45 J	-5474395.90	-5474395.76	-5474395.59	0.0141	0.0113
Saturn	-19698-12-01 08:23 J	-5472937.32	-5472937.15	-5472936.96	0.0271	0.0183
Jupiter	-19686-04-26 18:00 J	-5468772.87	-5468772.75	-5468772.62	0.0530	0.0438
Saturn	-19684-06-01 06:28 J	-5468006.42	-5468006.23	-5468006.03	0.0290	0.0170
Jupiter	-19674-05-01 09:50 J	-5464385.32	-5464385.09	-5464384.85	0.0531	0.0047
Saturn	-19669-11-25 00:00 J	-5462350.74	-5462350.50	-5462350.26	0.0270	0.0077
Uranus	-19660-05-21 22:33 J	-5459250.65	-5459250.56	-5459250.43	0.0136	0.0122
Uranus	-19659-05-26 13:40 J	-5458881.15	-5458880.93	-5458880.70	0.0136	0.0058
Uranus	-19658-05-30 14:52 J	-5458512.13	-5458511.88	-5458511.63	0.0137	0.0017
Uranus	-19657-06-03 06:14 J	-5458142.40	-5458142.24	-5458142.04	0.0137	0.0094
Saturn	-19655-05-26 14:09 J	-5457420.11	-5457419.91	-5457419.70	0.0293	0.0150
Jupiter	-19645-10-25 18:28 J	-5453614.95	-5453614.73	-5453614.51	0.0496	0.0133
Saturn	-19639-12-02 21:07 J	-5451385.67	-5451385.62	-5451385.57	0.0272	0.0266
Neptune	-19638-11-05 09:07 J	-5451048.33	-5451048.12	-5451047.90	0.0088	0.0046
Neptune	-19637-11-06 19:26 J	-5450680.96	-5450680.69	-5450680.42	0.0088	0.0012
Neptune	-19636-11-09 11:45 J	-5450313.22	-5450313.01	-5450312.76	0.0088	0.0038
Neptune	-19635-11-11 18:28 J	-5449945.87	-5449945.73	-5449945.56	0.0088	0.0071
Jupiter	-19633-10-30 11:16 J	-5449227.20	-5449227.03	-5449226.84	0.0495	0.0333
Saturn	-19625-06-02 20:09 J	-5446454.74	-5446454.66	-5446454.56	0.0290	0.0269
Uranus	-19621-11-19 12:00 J	-5444824.04	-5444824.00	-5444823.93	0.0143	0.0139

Uranus	-19620-11-24 06:14 J	-5444454.47	-5444454.24	-5444453.99	0.0142	0.0058
Uranus	-19619-11-29 13:40 J	-5444084.16	-5444083.93	-5444083.67	0.0142	0.0039
Mars	-19618-04-08 19:11 J	-5443953.89	-5443953.70	-5443953.52	0.1700	0.0295
Uranus	-19618-12-04 06:57 J	-5443714.37	-5443714.21	-5443714.03	0.0141	0.0106
Saturn	-19610-11-27 16:33 J	-5440799.05	-5440798.81	-5440798.56	0.0270	0.0006
Saturn	-19596-05-28 11:02 J	-5435868.26	-5435868.04	-5435867.80	0.0292	0.0046
Jupiter	-19591-04-30 08:52 J	-5434070.34	-5434070.13	-5434069.90	0.0530	0.0079
Saturn	-19581-11-21 20:09 J	-5430211.75	-5430211.66	-5430211.55	0.0269	0.0247
Jupiter	-19579-05-05 02:52 J	-5429682.51	-5429682.38	-5429682.26	0.0531	0.0449
Uranus	-19576-05-22 09:21 J	-5428569.17	-5428569.11	-5428569.01	0.0136	0.0128
Uranus	-19575-05-27 00:00 J	-5428199.73	-5428199.50	-5428199.26	0.0136	0.0048
Uranus	-19574-05-31 01:11 J	-5427830.69	-5427830.45	-5427830.20	0.0137	0.0022
Uranus	-19573-06-03 16:48 J	-5427460.97	-5427460.80	-5427460.59	0.0137	0.0091
Pluto	-19569-08-22 12:43 J	-5425920.21	-5425919.97	-5425919.71	0.0068	0.0010
Jupiter	-19562-10-25 20:52 J	-5423299.85	-5423299.63	-5423299.41	0.0496	0.0220
Neptune	-19555-05-08 13:11 J	-5420913.16	-5420912.95	-5420912.73	0.0089	0.0051
Neptune	-19554-05-11 02:23 J	-5420545.63	-5420545.40	-5420545.15	0.0089	0.0018
Neptune	-19553-05-12 08:09 J	-5420178.40	-5420178.16	-5420177.92	0.0089	0.0034
Neptune	-19552-05-15 00:14 J	-5419810.63	-5419810.49	-5419810.30	0.0089	0.0068
Saturn	-19551-11-29 09:50 J	-5419247.32	-5419247.09	-5419246.85	0.0271	0.0086
Jupiter	-19550-10-30 02:23 J	-5418912.60	-5418912.40	-5418912.19	0.0495	0.0236
Mars	-19546-10-04 03:50 J	-5417477.49	-5417477.34	-5417477.20	0.1816	0.1167
Mars	-19539-04-11 06:28 J	-5415096.36	-5415096.23	-5415096.09	0.1697	0.1273
Saturn	-19537-05-30 09:07 J	-5414316.35	-5414316.12	-5414315.89	0.0292	0.0060
Uranus	-19537-11-20 02:23 J	-5414142.49	-5414142.40	-5414142.29	0.0143	0.0132
Uranus	-19536-11-24 20:23 J	-5413772.89	-5413772.65	-5413772.39	0.0142	0.0041
Uranus	-19535-11-30 04:33 J	-5413402.56	-5413402.31	-5413402.06	0.0142	0.0032
Uranus	-19534-12-04 21:07 J	-5413032.70	-5413032.62	-5413032.49	0.0141	0.0129
Saturn	-19522-11-24 04:48 J	-5408660.49	-5408660.30	-5408660.09	0.0269	0.0170
Jupiter	-19508-04-29 03:50 J	-5403755.56	-5403755.34	-5403755.11	0.0530	0.0190

Saturn	-19508-05-24 12:57 J	-5403730.05	-5403729.96	-5403729.86	0.0293	0.0267
Jupiter	-19496-05-04 01:40 J	-5399367.59	-5399367.43	-5399367.26	0.0531	0.0363
Uranus	-19492-05-22 21:21 J	-5397887.74	-5397887.61	-5397887.47	0.0136	0.0111
Saturn	-19492-11-30 21:36 J	-5397695.79	-5397695.60	-5397695.39	0.0271	0.0165
Uranus	-19491-05-27 11:16 J	-5397518.27	-5397518.03	-5397517.80	0.0136	0.0049
Uranus	-19490-05-31 12:43 J	-5397149.21	-5397148.97	-5397148.73	0.0137	0.0026
Uranus	-19489-06-04 03:36 J	-5396779.51	-5396779.35	-5396779.17	0.0137	0.0102
Pluto	-19482-02-27 06:00 J	-5394320.32	-5394320.25	-5394320.13	0.0076	0.0071
Jupiter	-19479-10-24 15:36 J	-5392985.03	-5392984.85	-5392984.66	0.0496	0.0301
Saturn	-19478-06-02 02:09 J	-5392764.62	-5392764.41	-5392764.21	0.0291	0.0158
Neptune	-19474-11-04 11:02 J	-5391148.16	-5391148.04	-5391147.88	0.0088	0.0074
Neptune	-19473-11-06 05:02 J	-5390780.51	-5390780.29	-5390780.03	0.0088	0.0032
Neptune	-19472-11-08 11:16 J	-5390413.28	-5390413.03	-5390412.76	0.0088	0.0009
Neptune	-19471-11-11 06:57 J	-5390045.40	-5390045.21	-5390044.98	0.0088	0.0054
Mars	-19467-10-06 18:57 J	-5388619.83	-5388619.71	-5388619.59	0.1820	0.1364
Jupiter	-19467-10-29 12:00 J	-5388597.22	-5388597.00	-5388596.77	0.0496	0.0163
Saturn	-19463-11-25 14:09 J	-5387109.13	-5387108.91	-5387108.67	0.0269	0.0095
Uranus	-19453-11-20 14:52 J	-5383461.00	-5383460.88	-5383460.75	0.0143	0.0124
Uranus	-19452-11-25 09:07 J	-5383091.35	-5383091.12	-5383090.86	0.0142	0.0044
Uranus	-19451-11-30 17:02 J	-5382721.02	-5382720.79	-5382720.54	0.0142	0.0053
Uranus	-19450-12-05 09:36 J	-5382351.23	-5382351.10	-5382350.96	0.0141	0.0120
Saturn	-19449-05-26 06:00 J	-5382178.44	-5382178.25	-5382178.06	0.0292	0.0170
Saturn	-19433-12-02 02:09 J	-5376144.52	-5376144.41	-5376144.27	0.0271	0.0235
Jupiter	-19425-04-28 02:38 J	-5373440.57	-5373440.39	-5373440.20	0.0530	0.0292
Saturn	-19419-06-03 12:28 J	-5371213.09	-5371212.98	-5371212.85	0.0291	0.0253
Mars	-19413-04-06 21:50 J	-5369078.69	-5369078.59	-5369078.49	0.1709	0.1425
Jupiter	-19413-05-03 04:33 J	-5369052.51	-5369052.31	-5369052.10	0.0530	0.0257
Uranus	-19408-05-23 06:43 J	-5367206.32	-5367206.22	-5367206.09	0.0136	0.0119
Uranus	-19407-05-27 19:55 J	-5366836.91	-5366836.67	-5366836.42	0.0136	0.0039
Uranus	-19406-05-31 21:50 J	-5366467.83	-5366467.59	-5366467.35	0.0137	0.0028

Uranus	-19405-06-04 12:14 J	-5366098.15	-5366097.99	-5366097.80	0.0137	0.0098
Saturn	-19404-11-27 00:57 J	-5365557.70	-5365557.46	-5365557.22	0.0270	0.0027
Jupiter	-19396-10-24 03:21 J	-5362669.52	-5362669.36	-5362669.19	0.0497	0.0357
Neptune	-19391-05-07 23:02 J	-5361012.63	-5361012.54	-5361012.40	0.0089	0.0078
Neptune	-19390-05-10 04:48 J	-5360645.53	-5360645.30	-5360645.06	0.0089	0.0038
Saturn	-19390-05-28 22:48 J	-5360626.77	-5360626.55	-5360626.32	0.0292	0.0077
Neptune	-19389-05-11 22:19 J	-5360277.82	-5360277.57	-5360277.31	0.0089	0.0008
Neptune	-19388-05-14 01:55 J	-5359910.62	-5359910.42	-5359910.19	0.0089	0.0047
Jupiter	-19384-10-28 09:07 J	-5358282.36	-5358282.12	-5358281.88	0.0496	0.0090
Jupiter	-19372-11-02 02:52 J	-5353894.40	-5353894.38	-5353894.34	0.0495	0.0489
Uranus	-19369-11-20 23:45 J	-5352779.64	-5352779.51	-5352779.36	0.0143	0.0120
Uranus	-19368-11-25 18:43 J	-5352409.96	-5352409.72	-5352409.46	0.0142	0.0031
Uranus	-19367-12-01 02:52 J	-5352039.62	-5352039.38	-5352039.13	0.0142	0.0042
Uranus	-19366-12-05 19:26 J	-5351669.72	-5351669.69	-5351669.62	0.0141	0.0139
Saturn	-19345-11-28 07:26 J	-5344006.44	-5344006.19	-5344005.94	0.0270	0.0032
Jupiter	-19342-04-28 07:26 J	-5343125.34	-5343125.19	-5343125.02	0.0529	0.0388
Mars	-19334-04-10 01:55 J	-5340221.59	-5340221.42	-5340221.24	0.1705	0.0128
Saturn	-19331-05-30 10:04 J	-5339075.32	-5339075.08	-5339074.85	0.0292	0.0006
Jupiter	-19330-05-02 23:45 J	-5338737.72	-5338737.51	-5338737.29	0.0530	0.0163
Uranus	-19324-05-23 19:40 J	-5336524.82	-5336524.68	-5336524.50	0.0136	0.0102
Uranus	-19323-05-28 08:23 J	-5336155.39	-5336155.15	-5336154.91	0.0136	0.0040
Uranus	-19322-06-01 10:33 J	-5335786.29	-5335786.06	-5335785.82	0.0137	0.0035
Pluto	-19322-08-24 11:16 J	-5335702.25	-5335702.03	-5335701.78	0.0067	0.0023
Uranus	-19321-06-05 00:14 J	-5335416.63	-5335416.49	-5335416.32	0.0137	0.0108
Saturn	-19316-11-22 14:09 J	-5333420.00	-5333419.91	-5333419.82	0.0268	0.0249
Jupiter	-19313-10-23 03:21 J	-5332354.48	-5332354.36	-5332354.22	0.0496	0.0410
Neptune	-19309-11-05 03:21 J	-5330880.56	-5330880.36	-5330880.14	0.0088	0.0051
Neptune	-19308-11-07 23:16 J	-5330512.79	-5330512.53	-5330512.27	0.0088	0.0018
Neptune	-19307-11-10 05:02 J	-5330145.51	-5330145.29	-5330145.04	0.0088	0.0033
Neptune	-19306-11-12 22:33 J	-5329777.73	-5329777.56	-5329777.37	0.0088	0.0065

Jupiter	-19301-10-27 19:26 J	-5327966.92	-5327966.69	-5327966.46	0.0496	0.0023
Jupiter	-19289-11-01 07:11 J	-5323579.33	-5323579.20	-5323579.07	0.0496	0.0420
Saturn	-19286-11-30 04:33 J	-5322455.55	-5322455.31	-5322455.06	0.0270	0.0084
Uranus	-19285-11-21 08:38 J	-5322098.27	-5322098.14	-5322097.96	0.0143	0.0116
Uranus	-19284-11-26 04:48 J	-5321728.55	-5321728.30	-5321728.05	0.0143	0.0034
Uranus	-19283-12-01 12:28 J	-5321358.21	-5321357.98	-5321357.74	0.0142	0.0060
Uranus	-19282-12-06 04:48 J	-5320988.40	-5320988.30	-5320988.18	0.0141	0.0128
Saturn	-19272-05-31 10:19 J	-5317524.30	-5317524.07	-5317523.82	0.0292	0.0076
Jupiter	-19259-04-27 09:07 J	-5312810.23	-5312810.12	-5312810.00	0.0530	0.0457
Saturn	-19257-11-23 14:52 J	-5311869.03	-5311868.88	-5311868.71	0.0268	0.0200
Mars	-19255-04-12 02:23 J	-5311364.48	-5311364.40	-5311364.31	0.1702	0.1488
Jupiter	-19247-05-02 16:19 J	-5308422.05	-5308421.82	-5308421.60	0.0530	0.0111
Saturn	-19243-05-25 09:36 J	-5306938.17	-5306938.10	-5306938.02	0.0295	0.0278
Uranus	-19240-05-24 08:23 J	-5305843.28	-5305843.15	-5305842.98	0.0136	0.0108
Uranus	-19239-05-28 20:23 J	-5305473.90	-5305473.65	-5305473.40	0.0136	0.0027
Uranus	-19238-06-01 23:16 J	-5305104.76	-5305104.53	-5305104.29	0.0136	0.0039
Uranus	-19237-06-05 12:43 J	-5304735.12	-5304734.97	-5304734.81	0.0137	0.0108
Pluto	-19235-02-28 01:40 J	-5304102.65	-5304102.43	-5304102.20	0.0076	0.0035
Jupiter	-19230-10-23 15:07 J	-5302038.93	-5302038.87	-5302038.79	0.0497	0.0469
Saturn	-19227-11-30 20:23 J	-5300904.87	-5300904.65	-5300904.43	0.0270	0.0129
Neptune	-19226-05-09 18:43 J	-5300744.91	-5300744.72	-5300744.52	0.0089	0.0057
Neptune	-19225-05-10 22:19 J	-5300377.80	-5300377.57	-5300377.31	0.0089	0.0023
Neptune	-19224-05-13 14:52 J	-5300010.12	-5300009.88	-5300009.63	0.0089	0.0028
Neptune	-19223-05-15 20:52 J	-5299642.80	-5299642.63	-5299642.44	0.0089	0.0061
Jupiter	-19218-10-28 04:19 J	-5297651.57	-5297651.32	-5297651.08	0.0497	0.0026
Saturn	-19213-06-01 05:16 J	-5295973.49	-5295973.28	-5295973.06	0.0292	0.0142
Jupiter	-19206-11-01 17:31 J	-5293263.92	-5293263.77	-5293263.62	0.0496	0.0371
Uranus	-19201-11-21 20:09 J	-5291416.82	-5291416.66	-5291416.48	0.0143	0.0108
Uranus	-19200-11-26 16:19 J	-5291047.06	-5291046.82	-5291046.56	0.0143	0.0022
Uranus	-19199-12-01 23:45 J	-5290676.75	-5290676.51	-5290676.26	0.0142	0.0052

Saturn	-19198-11-25 14:52 J	-5290318.07	-5290317.88	-5290317.67	0.0268	0.0155
Saturn	-19184-05-26 09:50 J	-5285387.24	-5285387.09	-5285386.92	0.0295	0.0217
Mars	-19183-10-06 23:16 J	-5284888.69	-5284888.53	-5284888.36	0.1813	0.1108
Jupiter	-19176-04-27 04:19 J	-5282494.39	-5282494.32	-5282494.24	0.0529	0.0498
Saturn	-19168-12-01 16:19 J	-5279354.00	-5279353.82	-5279353.63	0.0270	0.0176
Jupiter	-19164-05-01 17:31 J	-5278107.00	-5278106.77	-5278106.53	0.0529	0.0049
Uranus	-19156-05-25 00:14 J	-5275161.66	-5275161.49	-5275161.29	0.0136	0.0087
Uranus	-19155-05-29 11:16 J	-5274792.27	-5274792.03	-5274791.77	0.0136	0.0027
Uranus	-19154-06-02 15:21 J	-5274423.09	-5274422.86	-5274422.63	0.0137	0.0049
Saturn	-19154-06-03 02:23 J	-5274422.57	-5274422.40	-5274422.23	0.0292	0.0199
Uranus	-19153-06-06 03:36 J	-5274053.45	-5274053.35	-5274053.21	0.0137	0.0121
Neptune	-19145-11-04 13:40 J	-5270980.01	-5270979.93	-5270979.79	0.0088	0.0080
Neptune	-19144-11-06 20:52 J	-5270612.84	-5270612.63	-5270612.38	0.0088	0.0039
Neptune	-19143-11-09 14:09 J	-5270245.18	-5270244.91	-5270244.64	0.0088	0.0003
Neptune	-19142-11-12 00:28 J	-5269877.68	-5269877.48	-5269877.25	0.0088	0.0045
Neptune	-19141-11-13 11:45 J	-5269510.02	-5269510.01	-5269509.94	0.0088	0.0087
Saturn	-19139-11-26 08:23 J	-5268767.38	-5268767.15	-5268766.91	0.0268	0.0110
Jupiter	-19135-10-27 15:21 J	-5267336.09	-5267335.86	-5267335.63	0.0497	0.0072
Mars	-19129-04-07 08:23 J	-5265347.26	-5265347.15	-5265347.04	0.1715	0.1440
Saturn	-19125-05-27 02:38 J	-5263836.59	-5263836.39	-5263836.18	0.0295	0.0163
Jupiter	-19123-11-01 06:28 J	-5262948.42	-5262948.23	-5262948.04	0.0496	0.0305
Uranus	-19117-11-22 11:02 J	-5260735.22	-5260735.04	-5260734.85	0.0143	0.0101
Uranus	-19116-11-27 07:55 J	-5260365.42	-5260365.17	-5260364.92	0.0143	0.0019
Uranus	-19115-12-02 14:38 J	-5259995.11	-5259994.89	-5259994.66	0.0142	0.0074
Uranus	-19114-12-07 07:40 J	-5259625.18	-5259625.18	-5259625.15	0.0141	0.0141
Saturn	-19109-12-02 14:52 J	-5257803.00	-5257802.88	-5257802.73	0.0269	0.0224
Saturn	-19095-06-04 01:26 J	-5252871.55	-5252871.44	-5252871.33	0.0292	0.0254
Jupiter	-19081-05-01 08:52 J	-5247791.36	-5247791.13	-5247790.91	0.0530	0.0011
Saturn	-19080-11-26 23:02 J	-5247216.79	-5247216.54	-5247216.29	0.0268	0.0064
Pluto	-19075-08-25 03:36 J	-5245484.46	-5245484.35	-5245484.20	0.0067	0.0058

Pluto	-19074-08-26 18:43 J	-5245117.93	-5245117.72	-5245117.50	0.0068	0.0040
Uranus	-19072-05-25 14:09 J	-5244480.07	-5244479.91	-5244479.71	0.0136	0.0093
Uranus	-19071-05-30 00:43 J	-5244110.72	-5244110.47	-5244110.21	0.0136	0.0012
Uranus	-19070-06-03 05:02 J	-5243741.50	-5243741.29	-5243741.05	0.0137	0.0054
Jupiter	-19069-05-06 09:21 J	-5243403.12	-5243403.11	-5243403.08	0.0530	0.0528
Uranus	-19069-06-06 17:02 J	-5243371.88	-5243371.79	-5243371.65	0.0137	0.0123
Saturn	-19066-05-28 16:04 J	-5242286.06	-5242285.83	-5242285.60	0.0295	0.0108
Neptune	-19062-05-08 17:45 J	-5240844.82	-5240844.76	-5240844.66	0.0089	0.0084
Neptune	-19061-05-10 09:50 J	-5240477.30	-5240477.09	-5240476.85	0.0089	0.0047
Neptune	-19060-05-12 17:31 J	-5240110.02	-5240109.77	-5240109.53	0.0089	0.0001
Neptune	-19059-05-15 05:02 J	-5239742.52	-5239742.29	-5239742.04	0.0089	0.0039
Neptune	-19058-05-17 16:33 J	-5239374.85	-5239374.81	-5239374.71	0.0089	0.0086
Jupiter	-19052-10-27 03:21 J	-5237020.59	-5237020.36	-5237020.13	0.0497	0.0143
Mars	-19050-04-11 02:23 J	-5236489.59	-5236489.40	-5236489.21	0.1711	0.0377
Jupiter	-19040-10-31 11:31 J	-5232633.22	-5232633.02	-5232632.81	0.0497	0.0260
Uranus	-19033-11-23 02:09 J	-5230053.61	-5230053.41	-5230053.20	0.0143	0.0090
Uranus	-19032-11-27 23:31 J	-5229683.77	-5229683.52	-5229683.26	0.0143	0.0005
Uranus	-19031-12-03 05:45 J	-5229313.48	-5229313.26	-5229313.02	0.0142	0.0069
Saturn	-19021-11-27 18:28 J	-5225665.97	-5225665.73	-5225665.48	0.0268	0.0015
Saturn	-19007-05-29 11:16 J	-5220735.26	-5220735.03	-5220734.80	0.0295	0.0054

19TH MILLENNIUM BCE

This is a list of transits of Moon in the 19th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								

TIME

Jupiter	-18998-05-01 22:19 J	-5217475.81	-5217475.57	-5217475.34	0.0529	0.0029
Pluto	-18988-02-28 15:07 J	-5213885.12	-5213884.87	-5213884.62	0.0077	0.0011
Uranus	-18988-05-26 05:45 J	-5213798.45	-5213798.26	-5213798.04	0.0136	0.0073
Uranus	-18987-05-30 15:21 J	-5213429.11	-5213428.86	-5213428.60	0.0136	0.0013
Jupiter	-18986-05-06 14:38 J	-5213087.99	-5213087.89	-5213087.78	0.0529	0.0461
Uranus	-18986-06-03 20:23 J	-5213059.85	-5213059.65	-5213059.42	0.0137	0.0064
Uranus	-18985-06-07 07:26 J	-5212690.22	-5212690.19	-5212690.11	0.0137	0.0134
Neptune	-18980-11-06 03:21 J	-5210712.54	-5210712.36	-5210712.14	0.0088	0.0059
Neptune	-18979-11-08 15:36 J	-5210345.08	-5210344.85	-5210344.60	0.0088	0.0026
Neptune	-18978-11-11 02:23 J	-5209977.65	-5209977.40	-5209977.13	0.0088	0.0025
Neptune	-18977-11-12 19:11 J	-5209609.88	-5209609.70	-5209609.49	0.0088	0.0058
Jupiter	-18969-10-26 07:55 J	-5206705.38	-5206705.17	-5206704.95	0.0497	0.0191
Saturn	-18962-11-29 22:19 J	-5204114.81	-5204114.57	-5204114.33	0.0268	0.0044
Jupiter	-18957-10-31 05:45 J	-5202317.47	-5202317.26	-5202317.05	0.0496	0.0214
Uranus	-18949-11-23 18:14 J	-5199371.94	-5199371.74	-5199371.51	0.0143	0.0083
Saturn	-18948-05-30 13:11 J	-5199184.18	-5199183.95	-5199183.72	0.0295	0.0009
Uranus	-18948-11-28 16:48 J	-5199002.05	-5199001.80	-5199001.55	0.0143	0.0002
Uranus	-18947-12-03 22:33 J	-5198631.76	-5198631.56	-5198631.36	0.0142	0.0092
Saturn	-18933-11-23 20:09 J	-5193527.80	-5193527.66	-5193527.49	0.0266	0.0213
Jupiter	-18915-04-30 23:16 J	-5187160.75	-5187160.53	-5187160.31	0.0529	0.0110
Uranus	-18905-05-22 12:43 J	-5183485.99	-5183485.97	-5183485.91	0.0135	0.0133
Uranus	-18904-05-26 18:14 J	-5183116.93	-5183116.74	-5183116.53	0.0135	0.0079
Jupiter	-18903-05-06 02:09 J	-5182772.57	-5182772.41	-5182772.25	0.0530	0.0379
Uranus	-18903-05-31 02:38 J	-5182747.64	-5182747.39	-5182747.13	0.0136	0.0003
Saturn	-18903-12-01 05:31 J	-5182563.50	-5182563.27	-5182563.04	0.0268	0.0110
Uranus	-18902-06-04 08:52 J	-5182378.33	-5182378.13	-5182377.90	0.0136	0.0065
Uranus	-18901-06-07 19:26 J	-5182008.73	-5182008.69	-5182008.64	0.0137	0.0134
Mars	-18899-10-06 06:28 J	-5181158.43	-5181158.23	-5181158.03	0.1805	0.0461
Neptune	-18897-05-09 12:00 J	-5180577.14	-5180577.00	-5180576.82	0.0089	0.0067

Neptune	-18896-05-11 22:48 J	-5180209.80	-5180209.55	-5180209.30	0.0089	0.0031
Neptune	-18895-05-14 11:31 J	-5179842.25	-5179842.02	-5179841.77	0.0089	0.0018
Neptune	-18894-05-16 17:45 J	-5179474.96	-5179474.76	-5179474.54	0.0089	0.0053
Saturn	-18889-05-31 18:00 J	-5177632.98	-5177632.75	-5177632.51	0.0294	0.0082
Jupiter	-18886-10-26 18:28 J	-5176389.92	-5176389.73	-5176389.53	0.0497	0.0270
Jupiter	-18874-10-31 01:11 J	-5172002.69	-5172002.45	-5172002.22	0.0497	0.0132
Saturn	-18874-11-25 21:50 J	-5171976.78	-5171976.59	-5171976.37	0.0266	0.0148
Uranus	-18865-11-24 05:16 J	-5168690.49	-5168690.28	-5168690.03	0.0143	0.0075
Uranus	-18864-11-29 05:02 J	-5168320.54	-5168320.29	-5168320.04	0.0143	0.0012
Uranus	-18863-12-04 10:04 J	-5167950.28	-5167950.08	-5167949.85	0.0142	0.0085
Saturn	-18860-05-25 16:33 J	-5167046.91	-5167046.81	-5167046.70	0.0296	0.0265
Mars	-18845-04-08 01:11 J	-5161615.55	-5161615.45	-5161615.34	0.1721	0.1387
Saturn	-18844-12-02 10:33 J	-5161012.24	-5161012.06	-5161011.86	0.0268	0.0185
Jupiter	-18832-04-30 10:33 J	-5156845.28	-5156845.06	-5156844.84	0.0529	0.0180
Saturn	-18830-06-02 22:19 J	-5156081.77	-5156081.57	-5156081.36	0.0294	0.0163
Pluto	-18827-08-27 10:19 J	-5154900.34	-5154900.07	-5154899.80	0.0067	0.0002
Jupiter	-18820-05-05 02:38 J	-5152457.57	-5152457.39	-5152457.19	0.0530	0.0303
Uranus	-18820-05-27 08:38 J	-5152435.35	-5152435.14	-5152434.92	0.0135	0.0060
Uranus	-18819-05-31 16:04 J	-5152066.09	-5152065.83	-5152065.57	0.0136	0.0002
Uranus	-18818-06-04 22:48 J	-5151696.74	-5151696.55	-5151696.34	0.0136	0.0074
Neptune	-18816-11-05 06:57 J	-5150812.22	-5150812.21	-5150812.14	0.0088	0.0087
Neptune	-18815-11-07 16:19 J	-5150445.03	-5150444.82	-5150444.58	0.0088	0.0048
Saturn	-18815-11-27 09:36 J	-5150425.33	-5150425.10	-5150424.86	0.0267	0.0071
Neptune	-18814-11-10 10:19 J	-5150077.32	-5150077.07	-5150076.81	0.0088	0.0004
Neptune	-18813-11-11 16:19 J	-5149710.05	-5149709.82	-5149709.57	0.0088	0.0035
Neptune	-18812-11-14 11:31 J	-5149342.10	-5149342.02	-5149341.88	0.0088	0.0079
Jupiter	-18803-10-25 16:48 J	-5146074.98	-5146074.80	-5146074.62	0.0498	0.0337
Saturn	-18801-05-27 06:28 J	-5145495.40	-5145495.23	-5145495.03	0.0296	0.0177
Jupiter	-18791-10-30 10:48 J	-5141687.27	-5141687.05	-5141686.82	0.0497	0.0073
Uranus	-18781-11-24 15:50 J	-5138009.06	-5138008.84	-5138008.59	0.0143	0.0072

Uranus	-18780-11-29 16:48 J	-5137639.05	-5137638.80	-5137638.55	0.0143	0.0012
Uranus	-18779-12-04 21:07 J	-5137268.79	-5137268.62	-5137268.42	0.0142	0.0103
Saturn	-18771-06-04 05:45 J	-5134530.36	-5134530.26	-5134530.12	0.0293	0.0255
Mars	-18766-04-11 10:19 J	-5132758.25	-5132758.07	-5132757.88	0.1717	0.0522
Saturn	-18756-11-29 01:26 J	-5128873.68	-5128873.44	-5128873.19	0.0267	0.0011
Jupiter	-18749-04-29 02:52 J	-5126530.57	-5126530.38	-5126530.19	0.0528	0.0283
Saturn	-18742-05-30 00:28 J	-5123943.71	-5123943.48	-5123943.25	0.0296	0.0078
Pluto	-18740-03-03 03:36 J	-5123300.51	-5123300.35	-5123300.17	0.0076	0.0058
Jupiter	-18737-05-04 05:45 J	-5122142.47	-5122142.26	-5122142.05	0.0529	0.0182
Uranus	-18737-05-23 15:36 J	-5122122.96	-5122122.85	-5122122.72	0.0135	0.0119
Uranus	-18736-05-27 22:33 J	-5121753.76	-5121753.56	-5121753.34	0.0135	0.0066
Uranus	-18735-06-01 04:48 J	-5121384.55	-5121384.30	-5121384.04	0.0136	0.0015
Uranus	-18734-06-05 12:43 J	-5121015.16	-5121014.97	-5121014.76	0.0136	0.0077
Neptune	-18732-05-11 06:43 J	-5120309.39	-5120309.22	-5120309.01	0.0089	0.0058
Neptune	-18731-05-13 12:28 J	-5119942.24	-5119941.98	-5119941.72	0.0089	0.0009
Neptune	-18730-05-16 05:16 J	-5119574.52	-5119574.28	-5119574.04	0.0089	0.0028
Neptune	-18729-05-17 08:23 J	-5119207.25	-5119207.15	-5119206.99	0.0089	0.0076
Saturn	-18727-11-23 23:45 J	-5118286.59	-5118286.51	-5118286.40	0.0266	0.0245
Jupiter	-18720-10-24 23:31 J	-5115759.63	-5115759.52	-5115759.39	0.0497	0.0419
Jupiter	-18708-10-29 08:38 J	-5111372.39	-5111372.14	-5111371.89	0.0497	0.0018
Uranus	-18697-11-25 00:00 J	-5107327.73	-5107327.50	-5107327.25	0.0143	0.0063
Saturn	-18697-11-30 15:50 J	-5107322.07	-5107321.84	-5107321.60	0.0268	0.0092
Jupiter	-18696-11-02 17:31 J	-5106984.87	-5106984.77	-5106984.66	0.0496	0.0441
Uranus	-18696-11-30 02:23 J	-5106957.65	-5106957.40	-5106957.15	0.0143	0.0020
Uranus	-18695-12-05 06:00 J	-5106587.45	-5106587.25	-5106587.05	0.0142	0.0095
Saturn	-18683-05-31 17:16 J	-5102392.02	-5102391.78	-5102391.53	0.0295	0.0024
Saturn	-18668-11-25 12:28 J	-5096735.16	-5096734.98	-5096734.78	0.0266	0.0164
Jupiter	-18666-04-29 05:16 J	-5096215.43	-5096215.28	-5096215.13	0.0528	0.0400
Jupiter	-18654-05-03 21:50 J	-5091827.82	-5091827.59	-5091827.35	0.0529	0.0072
Uranus	-18653-05-24 06:57 J	-5091441.29	-5091441.21	-5091441.10	0.0135	0.0124

Uranus	-18652-05-28 15:21 J	-5091072.08	-5091071.86	-5091071.63	0.0135	0.0044
Uranus	-18651-06-01 20:52 J	-5090702.89	-5090702.63	-5090702.37	0.0136	0.0013
Neptune	-18651-11-07 00:43 J	-5090544.61	-5090544.47	-5090544.29	0.0088	0.0068
Uranus	-18650-06-06 05:16 J	-5090333.46	-5090333.28	-5090333.10	0.0136	0.0089
Neptune	-18650-11-09 06:28 J	-5090177.45	-5090177.23	-5090176.97	0.0088	0.0035
Neptune	-18649-11-11 02:23 J	-5089809.65	-5089809.40	-5089809.13	0.0088	0.0016
Neptune	-18648-11-13 08:38 J	-5089442.34	-5089442.14	-5089441.92	0.0088	0.0049
Saturn	-18638-12-03 02:09 J	-5085770.61	-5085770.41	-5085770.22	0.0268	0.0176
Jupiter	-18625-10-28 06:00 J	-5081057.48	-5081057.25	-5081057.03	0.0497	0.0101
Saturn	-18624-06-02 09:07 J	-5080840.34	-5080840.12	-5080839.89	0.0294	0.0131
Mars	-18615-10-06 11:31 J	-5077427.20	-5077427.02	-5077426.84	0.1797	0.0154
Uranus	-18614-11-21 12:28 J	-5077016.05	-5077015.98	-5077015.90	0.0144	0.0136
Jupiter	-18613-11-02 01:11 J	-5076669.61	-5076669.45	-5076669.29	0.0497	0.0366
Uranus	-18613-11-25 13:40 J	-5076646.16	-5076645.93	-5076645.68	0.0143	0.0061
Uranus	-18612-11-30 16:48 J	-5076276.04	-5076275.80	-5076275.54	0.0143	0.0025
Uranus	-18611-12-05 19:11 J	-5075905.84	-5075905.70	-5075905.51	0.0142	0.0114
Saturn	-18609-11-27 05:16 J	-5075183.51	-5075183.28	-5075183.05	0.0267	0.0082
Saturn	-18595-05-27 18:43 J	-5070253.88	-5070253.72	-5070253.55	0.0295	0.0207
Jupiter	-18583-04-27 22:33 J	-5065900.63	-5065900.56	-5065900.48	0.0529	0.0498
Pluto	-18579-08-29 08:23 J	-5064316.36	-5064316.15	-5064315.91	0.0068	0.0030
Saturn	-18579-12-04 10:19 J	-5064219.12	-5064219.07	-5064218.98	0.0269	0.0257
Jupiter	-18571-05-02 23:02 J	-5061512.76	-5061512.54	-5061512.31	0.0529	0.0040
Uranus	-18569-05-24 22:19 J	-5060759.73	-5060759.57	-5060759.39	0.0135	0.0102
Neptune	-18568-05-10 05:16 J	-5060409.39	-5060409.28	-5060409.14	0.0089	0.0078
Uranus	-18568-05-29 07:11 J	-5060390.43	-5060390.20	-5060389.97	0.0135	0.0049
Neptune	-18567-05-12 22:33 J	-5060041.76	-5060041.56	-5060041.31	0.0089	0.0042
Uranus	-18567-06-02 11:31 J	-5060021.27	-5060021.02	-5060020.77	0.0136	0.0031
Neptune	-18566-05-15 02:52 J	-5059674.63	-5059674.38	-5059674.12	0.0089	0.0008
Uranus	-18566-06-06 21:07 J	-5059651.80	-5059651.62	-5059651.44	0.0136	0.0092
Neptune	-18565-05-16 19:26 J	-5059306.91	-5059306.69	-5059306.46	0.0089	0.0043

Saturn	-18565-06-04 00:43 J	-5059288.60	-5059288.47	-5059288.32	0.0294	0.0237
Mars	-18561-04-09 06:28 J	-5057883.37	-5057883.23	-5057883.09	0.1726	0.1071
Jupiter	-18559-05-07 18:14 J	-5057124.86	-5057124.74	-5057124.60	0.0529	0.0443
Saturn	-18550-11-29 19:55 J	-5053631.92	-5053631.67	-5053631.42	0.0267	0.0005
Jupiter	-18542-10-28 13:40 J	-5050742.15	-5050741.93	-5050741.70	0.0497	0.0176
Saturn	-18536-05-29 16:04 J	-5048702.05	-5048701.83	-5048701.59	0.0295	0.0100
Jupiter	-18530-11-01 18:00 J	-5046354.94	-5046354.75	-5046354.55	0.0496	0.0280
Uranus	-18530-11-22 02:23 J	-5046334.43	-5046334.40	-5046334.34	0.0144	0.0141
Uranus	-18529-11-26 02:38 J	-5045964.64	-5045964.39	-5045964.13	0.0143	0.0046
Uranus	-18528-12-01 06:57 J	-5045594.45	-5045594.21	-5045593.97	0.0143	0.0035
Uranus	-18527-12-06 08:23 J	-5045224.30	-5045224.15	-5045223.96	0.0142	0.0110
Pluto	-18493-03-03 04:48 J	-5033083.52	-5033083.30	-5033083.06	0.0077	0.0038
Saturn	-18491-12-01 02:09 J	-5032080.66	-5032080.41	-5032080.16	0.0267	0.0070
Jupiter	-18488-05-01 18:28 J	-5031197.95	-5031197.73	-5031197.50	0.0528	0.0151
Neptune	-18486-11-08 17:31 J	-5030276.97	-5030276.77	-5030276.56	0.0088	0.0056
Uranus	-18485-05-25 13:55 J	-5030078.06	-5030077.92	-5030077.75	0.0135	0.0107
Neptune	-18485-11-10 00:00 J	-5029909.75	-5029909.50	-5029909.24	0.0088	0.0011
Uranus	-18484-05-29 23:45 J	-5029708.75	-5029708.51	-5029708.27	0.0135	0.0027
Neptune	-18484-11-12 16:04 J	-5029542.08	-5029541.83	-5029541.56	0.0088	0.0026
Uranus	-18483-06-03 03:07 J	-5029339.61	-5029339.37	-5029339.10	0.0136	0.0029
Neptune	-18483-11-15 02:52 J	-5029174.51	-5029174.38	-5029174.22	0.0088	0.0071
Mars	-18482-04-12 09:07 J	-5029026.27	-5029026.12	-5029025.96	0.1723	0.0782
Uranus	-18482-06-07 12:57 J	-5028970.09	-5028969.96	-5028969.78	0.0136	0.0105
Saturn	-18477-05-31 04:33 J	-5027150.56	-5027150.31	-5027150.06	0.0295	0.0001
Jupiter	-18476-05-06 14:52 J	-5026810.05	-5026809.88	-5026809.71	0.0529	0.0344
Saturn	-18462-11-25 17:16 J	-5021493.92	-5021493.78	-5021493.61	0.0266	0.0203
Jupiter	-18459-10-27 09:21 J	-5020427.31	-5020427.11	-5020426.91	0.0497	0.0252
Jupiter	-18447-11-01 04:04 J	-5016039.54	-5016039.33	-5016039.11	0.0497	0.0210
Uranus	-18446-11-22 20:23 J	-5015652.79	-5015652.65	-5015652.50	0.0144	0.0117
Uranus	-18445-11-26 20:09 J	-5015282.91	-5015282.66	-5015282.40	0.0143	0.0043

Uranus	-18444-12-02 00:57 J	-5014912.70	-5014912.46	-5014912.22	0.0143	0.0042
Uranus	-18443-12-07 01:11 J	-5014542.54	-5014542.45	-5014542.32	0.0142	0.0130
Saturn	-18432-12-02 01:11 J	-5010529.67	-5010529.45	-5010529.23	0.0268	0.0137
Saturn	-18418-06-02 11:02 J	-5005599.27	-5005599.04	-5005598.80	0.0295	0.0087
Jupiter	-18405-04-30 21:21 J	-5000882.80	-5000882.61	-5000882.41	0.0529	0.0239
Neptune	-18403-05-11 21:21 J	-5000141.76	-5000141.61	-5000141.45	0.0089	0.0069
Saturn	-18403-11-26 23:45 J	-4999942.71	-4999942.51	-4999942.30	0.0266	0.0141
Neptune	-18402-05-14 13:11 J	-4999774.20	-4999773.95	-4999773.69	0.0089	0.0019
Neptune	-18401-05-15 20:09 J	-4999406.89	-4999406.66	-4999406.41	0.0089	0.0016
Uranus	-18401-05-26 03:50 J	-4999396.53	-4999396.34	-4999396.13	0.0135	0.0086
Neptune	-18400-05-18 07:11 J	-4999039.35	-4999039.20	-4999039.00	0.0089	0.0065
Uranus	-18400-05-30 13:55 J	-4999027.15	-4999026.92	-4999026.68	0.0135	0.0034
Uranus	-18399-06-03 16:33 J	-4998658.04	-4998657.81	-4998657.56	0.0136	0.0046
Uranus	-18398-06-08 03:36 J	-4998288.49	-4998288.35	-4998288.19	0.0136	0.0105
Jupiter	-18393-05-06 00:57 J	-4996494.66	-4996494.46	-4996494.26	0.0529	0.0270
Saturn	-18389-05-26 18:28 J	-4995012.82	-4995012.73	-4995012.63	0.0297	0.0271
Jupiter	-18376-10-26 21:07 J	-4990111.80	-4990111.62	-4990111.44	0.0498	0.0316
Saturn	-18373-12-03 00:43 J	-4988978.63	-4988978.47	-4988978.29	0.0268	0.0196
Jupiter	-18364-10-31 05:31 J	-4985724.50	-4985724.27	-4985724.03	0.0497	0.0157
Uranus	-18362-11-23 09:50 J	-4984971.21	-4984971.09	-4984970.95	0.0144	0.0123
Uranus	-18361-11-27 08:23 J	-4984601.40	-4984601.15	-4984600.88	0.0143	0.0029
Uranus	-18360-12-02 13:55 J	-4984231.14	-4984230.92	-4984230.67	0.0143	0.0052
Saturn	-18359-06-03 16:48 J	-4984047.98	-4984047.80	-4984047.59	0.0295	0.0164
Uranus	-18359-12-07 13:40 J	-4983861.03	-4983860.93	-4983860.78	0.0142	0.0126
Saturn	-18344-11-27 23:45 J	-4978391.74	-4978391.51	-4978391.26	0.0266	0.0088
Pluto	-18332-08-29 12:00 J	-4974099.18	-4974099.00	-4974098.80	0.0067	0.0044
Pluto	-18331-08-31 02:38 J	-4973732.53	-4973732.39	-4973732.20	0.0068	0.0053
Mars	-18331-10-06 20:38 J	-4973695.84	-4973695.64	-4973695.44	0.1790	0.0027
Saturn	-18330-05-28 21:07 J	-4973461.80	-4973461.62	-4973461.44	0.0297	0.0199
Jupiter	-18322-05-01 10:33 J	-4970567.25	-4970567.06	-4970566.87	0.0528	0.0308

Neptune	-18322-11-07 15:50 J	-4970376.94	-4970376.84	-4970376.69	0.0088	0.0076
Neptune	-18321-11-09 07:11 J	-4970009.42	-4970009.20	-4970008.95	0.0088	0.0042
Neptune	-18320-11-11 19:26 J	-4969641.94	-4969641.69	-4969641.43	0.0088	0.0007
Neptune	-18319-11-14 05:45 J	-4969274.49	-4969274.26	-4969274.01	0.0088	0.0041
Uranus	-18317-05-26 16:33 J	-4968714.98	-4968714.81	-4968714.61	0.0135	0.0094
Uranus	-18316-05-31 03:36 J	-4968345.59	-4968345.35	-4968345.11	0.0135	0.0014
Uranus	-18315-06-04 05:16 J	-4967976.52	-4967976.28	-4967976.03	0.0136	0.0040
Uranus	-18314-06-08 16:33 J	-4967606.92	-4967606.81	-4967606.67	0.0136	0.0117
Saturn	-18314-12-05 02:38 J	-4967427.47	-4967427.39	-4967427.31	0.0267	0.0252
Jupiter	-18310-05-05 23:02 J	-4966179.75	-4966179.54	-4966179.32	0.0528	0.0193
Saturn	-18300-06-04 22:04 J	-4962496.72	-4962496.58	-4962496.43	0.0295	0.0229
Jupiter	-18293-10-26 01:40 J	-4959796.60	-4959796.43	-4959796.26	0.0498	0.0352
Saturn	-18285-11-28 16:33 J	-4956841.06	-4956840.81	-4956840.55	0.0266	0.0034
Jupiter	-18281-10-30 19:26 J	-4955408.91	-4955408.69	-4955408.47	0.0497	0.0118
Uranus	-18278-11-23 22:04 J	-4954289.74	-4954289.58	-4954289.39	0.0144	0.0103
Mars	-18277-04-09 19:11 J	-4954151.86	-4954151.70	-4954151.54	0.1733	0.1069
Uranus	-18277-11-27 20:38 J	-4953919.90	-4953919.64	-4953919.38	0.0144	0.0030
Uranus	-18276-12-03 03:07 J	-4953549.58	-4953549.37	-4953549.12	0.0143	0.0057
Uranus	-18275-12-08 02:09 J	-4953179.44	-4953179.41	-4953179.37	0.0143	0.0141
Saturn	-18271-05-29 14:52 J	-4951911.10	-4951910.88	-4951910.66	0.0297	0.0138
Pluto	-18245-03-04 19:26 J	-4942499.94	-4942499.69	-4942499.44	0.0077	0.0012
Saturn	-18241-06-05 21:50 J	-4940945.63	-4940945.59	-4940945.54	0.0295	0.0288
Jupiter	-18239-04-30 10:19 J	-4940252.22	-4940252.07	-4940251.91	0.0528	0.0383
Neptune	-18239-05-11 06:14 J	-4940241.25	-4940241.24	-4940241.18	0.0089	0.0089
Neptune	-18238-05-13 15:21 J	-4939874.06	-4939873.86	-4939873.65	0.0089	0.0051
Neptune	-18237-05-15 02:23 J	-4939506.66	-4939506.40	-4939506.13	0.0089	0.0004
Neptune	-18236-05-17 15:36 J	-4939139.08	-4939138.85	-4939138.62	0.0089	0.0034
Neptune	-18235-05-19 20:52 J	-4938771.72	-4938771.63	-4938771.49	0.0089	0.0080
Uranus	-18233-05-27 05:02 J	-4938033.49	-4938033.29	-4938033.07	0.0135	0.0074
Uranus	-18232-05-31 16:19 J	-4937664.06	-4937663.82	-4937663.57	0.0135	0.0022

Uranus	-18231-06-04 17:02 J	-4937295.01	-4937294.79	-4937294.55	0.0136	0.0058
Uranus	-18230-06-09 05:31 J	-4936925.39	-4936925.27	-4936925.13	0.0136	0.0115
Jupiter	-18227-05-05 16:48 J	-4935864.01	-4935863.80	-4935863.58	0.0529	0.0146
Saturn	-18226-11-30 08:52 J	-4935290.37	-4935290.13	-4935289.87	0.0266	0.0019
Saturn	-18212-05-30 08:38 J	-4930360.36	-4930360.14	-4930359.90	0.0297	0.0083
Jupiter	-18210-10-26 12:14 J	-4929481.12	-4929480.99	-4929480.86	0.0499	0.0404
Mars	-18198-04-13 11:45 J	-4925294.16	-4925294.01	-4925293.86	0.1729	0.1058
Jupiter	-18198-10-31 02:52 J	-4925093.62	-4925093.38	-4925093.13	0.0498	0.0059
Saturn	-18197-11-24 15:21 J	-4924702.95	-4924702.86	-4924702.75	0.0264	0.0241
Uranus	-18194-11-24 05:02 J	-4923608.43	-4923608.29	-4923608.12	0.0144	0.0114
Uranus	-18193-11-28 02:23 J	-4923238.66	-4923238.40	-4923238.14	0.0144	0.0019
Uranus	-18192-12-03 10:04 J	-4922868.30	-4922868.08	-4922867.84	0.0143	0.0059
Uranus	-18191-12-08 08:09 J	-4922498.25	-4922498.16	-4922498.07	0.0143	0.0134
Jupiter	-18186-11-04 15:21 J	-4920705.92	-4920705.86	-4920705.78	0.0497	0.0472
Saturn	-18167-12-01 07:40 J	-4913739.41	-4913739.18	-4913738.94	0.0266	0.0072
Neptune	-18157-11-08 11:31 J	-4910109.17	-4910109.02	-4910108.82	0.0088	0.0065
Jupiter	-18156-04-30 07:40 J	-4909936.31	-4909936.18	-4909936.04	0.0527	0.0424
Neptune	-18156-11-10 21:21 J	-4909741.87	-4909741.61	-4909741.34	0.0088	0.0017
Neptune	-18155-11-13 14:52 J	-4909374.12	-4909373.88	-4909373.62	0.0088	0.0018
Neptune	-18154-11-15 21:07 J	-4909006.80	-4909006.62	-4909006.44	0.0088	0.0064
Saturn	-18153-05-31 06:28 J	-4908809.46	-4908809.23	-4908809.00	0.0297	0.0035
Uranus	-18150-05-24 19:11 J	-4907720.71	-4907720.70	-4907720.65	0.0134	0.0133
Uranus	-18149-05-27 18:43 J	-4907351.91	-4907351.72	-4907351.50	0.0135	0.0081
Uranus	-18148-06-01 06:43 J	-4906982.46	-4906982.22	-4906981.97	0.0135	0.0002
Uranus	-18147-06-05 07:11 J	-4906613.43	-4906613.20	-4906612.96	0.0136	0.0052
Uranus	-18146-06-09 19:26 J	-4906243.75	-4906243.69	-4906243.59	0.0136	0.0128
Jupiter	-18144-05-05 01:11 J	-4905548.68	-4905548.45	-4905548.22	0.0528	0.0110
Saturn	-18138-11-26 07:40 J	-4903152.35	-4903152.18	-4903151.98	0.0264	0.0188
Jupiter	-18127-10-26 00:57 J	-4899165.58	-4899165.46	-4899165.34	0.0499	0.0430
Jupiter	-18115-10-30 12:57 J	-4894778.18	-4894777.96	-4894777.72	0.0498	0.0027

Uranus	-18110-11-24 15:07 J	-4892927.06	-4892926.87	-4892926.67	0.0144	0.0095
Uranus	-18109-11-28 12:00 J	-4892557.26	-4892557.00	-4892556.74	0.0144	0.0024
Saturn	-18108-12-02 08:52 J	-4892188.35	-4892188.13	-4892187.91	0.0266	0.0128
Uranus	-18108-12-03 20:38 J	-4892186.86	-4892186.64	-4892186.41	0.0143	0.0063
Jupiter	-18103-11-04 09:50 J	-4890390.21	-4890390.09	-4890389.97	0.0497	0.0424
Saturn	-18094-06-02 03:50 J	-4887258.58	-4887258.34	-4887258.10	0.0297	0.0014
Pluto	-18084-08-31 05:02 J	-4883515.52	-4883515.29	-4883515.03	0.0067	0.0029
Pluto	-18083-09-01 21:50 J	-4883148.59	-4883148.59	-4883148.59	0.0068	0.0068
Saturn	-18079-11-27 01:11 J	-4881601.66	-4881601.45	-4881601.22	0.0264	0.0132
Neptune	-18074-05-12 19:55 J	-4879973.79	-4879973.67	-4879973.53	0.0089	0.0078
Jupiter	-18073-04-29 10:48 J	-4879621.14	-4879621.05	-4879620.94	0.0527	0.0477
Neptune	-18073-05-14 09:50 J	-4879606.31	-4879606.09	-4879605.84	0.0089	0.0028
Neptune	-18072-05-16 15:50 J	-4879239.10	-4879238.84	-4879238.58	0.0089	0.0005
Neptune	-18071-05-19 08:38 J	-4878871.31	-4878871.14	-4878870.92	0.0089	0.0057
Uranus	-18065-05-28 08:52 J	-4876670.35	-4876670.13	-4876669.90	0.0135	0.0060
Uranus	-18064-06-01 21:07 J	-4876300.86	-4876300.62	-4876300.37	0.0135	0.0009
Uranus	-18063-06-05 20:52 J	-4875931.83	-4875931.63	-4875931.40	0.0136	0.0072
Uranus	-18062-06-10 10:33 J	-4875562.13	-4875562.06	-4875561.97	0.0136	0.0128
Jupiter	-18061-05-04 11:31 J	-4875233.24	-4875233.02	-4875232.80	0.0528	0.0055
Saturn	-18049-12-03 05:31 J	-4870637.44	-4870637.27	-4870637.08	0.0266	0.0185
Mars	-18047-10-06 08:38 J	-4869965.33	-4869965.14	-4869964.94	0.1782	0.0630
Jupiter	-18044-10-25 08:52 J	-4868850.20	-4868850.13	-4868850.05	0.0499	0.0470
Saturn	-18035-06-02 21:36 J	-4865707.85	-4865707.60	-4865707.36	0.0297	0.0065
Jupiter	-18032-10-30 00:28 J	-4864462.72	-4864462.48	-4864462.24	0.0498	0.0042
Uranus	-18026-11-25 01:11 J	-4862245.61	-4862245.45	-4862245.26	0.0144	0.0104
Uranus	-18025-11-28 21:36 J	-4861875.86	-4861875.60	-4861875.34	0.0144	0.0008
Uranus	-18024-12-04 06:14 J	-4861505.45	-4861505.24	-4861505.00	0.0143	0.0068
Jupiter	-18020-11-03 07:11 J	-4860075.37	-4860075.20	-4860075.03	0.0498	0.0345
Saturn	-18020-11-28 02:23 J	-4860050.63	-4860050.40	-4860050.17	0.0264	0.0076

18TH MILLENNIUM BCE

This is a list of transits of Moon in the 18th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Pluto	-17997-03-06 15:50 J		-4851916.11	-4851915.84	-4851915.57	0.0077	0.0003	
Mars	-17993-04-10 02:23 J		-4850420.54	-4850420.40	-4850420.26	0.1740	0.1177	
Neptune	-17993-11-07 13:55 J		-4850209.00	-4850208.92	-4850208.81	0.0088	0.0082	
Neptune	-17992-11-10 08:23 J		-4849841.36	-4849841.15	-4849840.93	0.0088	0.0047	
Neptune	-17991-11-12 13:55 J		-4849474.18	-4849473.92	-4849473.66	0.0088	0.0001	
Neptune	-17990-11-15 09:07 J		-4849106.35	-4849106.12	-4849105.86	0.0088	0.0035	
Saturn	-17990-12-05 02:52 J		-4849086.46	-4849086.38	-4849086.29	0.0266	0.0248	
Neptune	-17989-11-16 14:38 J		-4848738.94	-4848738.89	-4848738.78	0.0088	0.0084	
Uranus	-17982-05-26 00:14 J		-4846357.59	-4846357.49	-4846357.36	0.0134	0.0119	
Uranus	-17981-05-28 23:16 J		-4845988.74	-4845988.53	-4845988.30	0.0135	0.0066	
Uranus	-17980-06-02 12:14 J		-4845619.24	-4845618.99	-4845618.75	0.0135	0.0013	
Uranus	-17979-06-06 11:45 J		-4845250.21	-4845250.01	-4845249.77	0.0136	0.0067	
Jupiter	-17978-05-04 22:33 J		-4844917.80	-4844917.56	-4844917.32	0.0528	0.0011	
Saturn	-17976-06-03 17:16 J		-4844157.00	-4844156.78	-4844156.56	0.0297	0.0123	
Mars	-17968-10-09 16:19 J		-4841106.94	-4841106.82	-4841106.70	0.1788	0.1470	
Saturn	-17961-11-29 09:07 J		-4838499.36	-4838499.12	-4838498.88	0.0264	0.0012	
Jupiter	-17949-10-29 01:11 J		-4834147.68	-4834147.45	-4834147.21	0.0498	0.0101	
Saturn	-17947-05-29 01:55 J		-4833570.56	-4833570.42	-4833570.27	0.0299	0.0234	
Uranus	-17942-11-25 15:21 J		-4831564.06	-4831563.86	-4831563.63	0.0144	0.0081	
Uranus	-17941-11-29 11:45 J		-4831194.27	-4831194.01	-4831193.75	0.0144	0.0012	

Uranus	-17940-12-04 21:07 J	-4830823.82	-4830823.62	-4830823.39	0.0143	0.0076
Jupiter	-17937-11-02 22:48 J	-4829759.74	-4829759.55	-4829759.36	0.0498	0.0288
Saturn	-17917-06-05 00:00 J	-4822605.67	-4822605.50	-4822605.33	0.0296	0.0200
Mars	-17914-04-13 18:00 J	-4821562.91	-4821562.75	-4821562.60	0.1735	0.1100
Neptune	-17909-05-13 11:45 J	-4819706.19	-4819706.01	-4819705.80	0.0089	0.0058
Neptune	-17908-05-16 05:31 J	-4819338.52	-4819338.27	-4819338.02	0.0089	0.0013
Neptune	-17907-05-18 09:21 J	-4818971.34	-4818971.11	-4818970.86	0.0089	0.0027
Neptune	-17906-05-21 01:40 J	-4818603.56	-4818603.43	-4818603.25	0.0089	0.0072
Saturn	-17902-12-01 16:48 J	-4816948.04	-4816947.80	-4816947.55	0.0265	0.0058
Uranus	-17898-05-26 14:09 J	-4815675.98	-4815675.91	-4815675.78	0.0134	0.0123
Uranus	-17897-05-29 12:57 J	-4815307.18	-4815306.96	-4815306.71	0.0135	0.0046
Uranus	-17896-06-03 02:09 J	-4814937.66	-4814937.41	-4814937.16	0.0135	0.0006
Jupiter	-17895-05-03 21:07 J	-4814602.84	-4814602.62	-4814602.40	0.0527	0.0066
Uranus	-17895-06-07 01:40 J	-4814568.61	-4814568.43	-4814568.22	0.0136	0.0086
Saturn	-17888-05-30 08:52 J	-4812019.34	-4812019.13	-4812018.91	0.0298	0.0150
Jupiter	-17883-05-08 23:45 J	-4810214.63	-4810214.51	-4810214.38	0.0528	0.0440
Saturn	-17873-11-25 12:28 J	-4806361.13	-4806360.98	-4806360.81	0.0264	0.0199
Jupiter	-17866-10-29 13:11 J	-4803832.16	-4803831.95	-4803831.73	0.0498	0.0171
Saturn	-17858-06-07 14:09 J	-4801053.96	-4801053.91	-4801053.85	0.0296	0.0287
Uranus	-17858-11-26 04:19 J	-4800882.50	-4800882.32	-4800882.10	0.0144	0.0089
Uranus	-17857-11-30 00:28 J	-4800512.74	-4800512.48	-4800512.22	0.0144	0.0007
Uranus	-17856-12-05 09:21 J	-4800142.30	-4800142.11	-4800141.88	0.0143	0.0081
Jupiter	-17854-11-02 17:45 J	-4799444.98	-4799444.76	-4799444.54	0.0497	0.0199
Saturn	-17843-12-02 22:33 J	-4795396.78	-4795396.56	-4795396.33	0.0265	0.0135
Pluto	-17836-09-01 20:09 J	-4792931.88	-4792931.66	-4792931.42	0.0067	0.0026
Saturn	-17829-05-31 18:14 J	-4790467.98	-4790467.74	-4790467.49	0.0298	0.0058
Neptune	-17828-11-09 07:11 J	-4789941.35	-4789941.20	-4789941.03	0.0088	0.0070
Neptune	-17827-11-12 02:23 J	-4789573.64	-4789573.40	-4789573.13	0.0088	0.0022
Neptune	-17826-11-14 09:21 J	-4789206.36	-4789206.11	-4789205.85	0.0088	0.0013
Neptune	-17825-11-16 01:55 J	-4788838.60	-4788838.42	-4788838.20	0.0088	0.0060

Uranus	-17814-05-27 02:38 J	-4784994.53	-4784994.39	-4784994.22	0.0134	0.0106
Saturn	-17814-11-28 03:21 J	-4784809.57	-4784809.36	-4784809.14	0.0264	0.0119
Uranus	-17813-05-30 01:40 J	-4784625.66	-4784625.43	-4784625.20	0.0135	0.0053
Jupiter	-17812-05-03 01:40 J	-4784287.65	-4784287.43	-4784287.21	0.0527	0.0165
Uranus	-17812-06-03 14:38 J	-4784256.13	-4784255.89	-4784255.63	0.0135	0.0027
Uranus	-17811-06-07 14:38 J	-4783887.10	-4783886.89	-4783886.69	0.0136	0.0078
Jupiter	-17800-05-07 17:02 J	-4779899.96	-4779899.79	-4779899.61	0.0528	0.0342
Saturn	-17784-12-04 06:28 J	-4773845.37	-4773845.23	-4773845.08	0.0266	0.0217
Jupiter	-17783-10-28 06:00 J	-4773517.45	-4773517.25	-4773517.04	0.0498	0.0264
Uranus	-17774-11-26 16:48 J	-4770201.02	-4770200.80	-4770200.56	0.0144	0.0067
Uranus	-17773-11-30 13:11 J	-4769831.21	-4769830.95	-4769830.69	0.0144	0.0002
Uranus	-17772-12-05 23:02 J	-4769460.73	-4769460.54	-4769460.33	0.0143	0.0089
Jupiter	-17771-11-01 22:04 J	-4769129.80	-4769129.58	-4769129.36	0.0498	0.0121
Saturn	-17770-06-03 09:50 J	-4768916.33	-4768916.09	-4768915.85	0.0298	0.0046
Mars	-17763-10-06 16:19 J	-4766233.97	-4766233.82	-4766233.66	0.1775	0.0879
Saturn	-17755-11-29 19:40 J	-4763257.92	-4763257.68	-4763257.43	0.0264	0.0035
Pluto	-17749-03-08 01:40 J	-4761332.68	-4761332.43	-4761332.18	0.0077	0.0003
Neptune	-17745-05-13 01:40 J	-4759805.48	-4759805.43	-4759805.32	0.0089	0.0085
Neptune	-17744-05-15 06:28 J	-4759438.46	-4759438.23	-4759438.00	0.0089	0.0034
Neptune	-17743-05-17 22:48 J	-4759070.81	-4759070.55	-4759070.29	0.0089	0.0001
Neptune	-17742-05-20 05:45 J	-4758703.46	-4758703.26	-4758703.05	0.0089	0.0050
Neptune	-17741-05-21 17:45 J	-4758335.84	-4758335.76	-4758335.64	0.0089	0.0083
Uranus	-17730-05-27 14:09 J	-4754313.04	-4754312.91	-4754312.76	0.0134	0.0111
Jupiter	-17729-05-01 18:28 J	-4753972.92	-4753972.73	-4753972.53	0.0528	0.0261
Uranus	-17729-05-30 12:57 J	-4753944.20	-4753943.96	-4753943.72	0.0135	0.0035
Uranus	-17728-06-04 01:55 J	-4753574.66	-4753574.42	-4753574.17	0.0135	0.0017
Uranus	-17727-06-08 01:11 J	-4753205.61	-4753205.45	-4753205.26	0.0136	0.0096
Jupiter	-17717-05-06 21:07 J	-4749584.82	-4749584.62	-4749584.42	0.0528	0.0233
Saturn	-17711-06-05 08:52 J	-4747364.32	-4747364.13	-4747363.92	0.0297	0.0157
Mars	-17709-04-11 04:04 J	-4746688.48	-4746688.33	-4746688.18	0.1746	0.0944

Jupiter	-17700-10-27 09:50 J	-4743202.25	-4743202.09	-4743201.92	0.0499	0.0350
Saturn	-17696-12-01 07:40 J	-4741706.44	-4741706.18	-4741705.93	0.0265	0.0046
Uranus	-17690-11-27 00:00 J	-4739519.70	-4739519.50	-4739519.26	0.0144	0.0079
Uranus	-17689-11-30 20:52 J	-4739149.88	-4739149.63	-4739149.37	0.0144	0.0017
Jupiter	-17688-10-31 23:02 J	-4738814.78	-4738814.54	-4738814.29	0.0498	0.0038
Uranus	-17688-12-06 06:14 J	-4738779.43	-4738779.24	-4738779.03	0.0143	0.0089
Mars	-17684-10-09 06:14 J	-4737376.39	-4737376.24	-4737376.09	0.1780	0.1128
Saturn	-17682-05-30 15:07 J	-4736778.05	-4736777.87	-4736777.67	0.0298	0.0191
Jupiter	-17676-11-05 06:57 J	-4734427.30	-4734427.21	-4734427.12	0.0497	0.0457
Saturn	-17667-11-26 05:45 J	-4731119.40	-4731119.26	-4731119.12	0.0264	0.0214
Neptune	-17664-11-08 20:09 J	-4730040.68	-4730040.66	-4730040.57	0.0088	0.0086
Neptune	-17663-11-11 03:50 J	-4729673.53	-4729673.34	-4729673.11	0.0088	0.0050
Neptune	-17662-11-13 19:55 J	-4729305.95	-4729305.67	-4729305.40	0.0088	0.0004
Neptune	-17661-11-15 07:11 J	-4728938.43	-4728938.20	-4728937.96	0.0088	0.0032
Neptune	-17660-11-17 18:14 J	-4728570.85	-4728570.74	-4728570.62	0.0088	0.0079
Saturn	-17652-06-07 09:07 J	-4725812.21	-4725812.12	-4725812.01	0.0297	0.0266
Jupiter	-17646-05-01 21:50 J	-4723657.75	-4723657.59	-4723657.43	0.0527	0.0369
Uranus	-17646-05-28 00:57 J	-4723631.64	-4723631.46	-4723631.28	0.0134	0.0096
Uranus	-17645-05-30 23:45 J	-4723262.73	-4723262.51	-4723262.27	0.0135	0.0044
Uranus	-17644-06-04 12:43 J	-4722893.21	-4722892.97	-4722892.72	0.0135	0.0035
Uranus	-17643-06-08 12:14 J	-4722524.16	-4722523.99	-4722523.78	0.0135	0.0086
Saturn	-17637-12-02 15:36 J	-4720155.08	-4720154.85	-4720154.62	0.0265	0.0127
Jupiter	-17634-05-06 10:48 J	-4719270.29	-4719270.05	-4719269.82	0.0528	0.0108
Mars	-17630-04-14 07:40 J	-4717831.30	-4717831.18	-4717831.05	0.1742	0.1210
Saturn	-17623-06-01 09:07 J	-4715226.35	-4715226.12	-4715225.88	0.0298	0.0079
Jupiter	-17617-10-26 09:50 J	-4712887.20	-4712887.09	-4712886.96	0.0499	0.0432
Saturn	-17608-11-27 19:40 J	-4709567.88	-4709567.68	-4709567.47	0.0264	0.0137
Uranus	-17606-11-27 05:45 J	-4708838.49	-4708838.26	-4708838.01	0.0144	0.0061
Jupiter	-17605-10-30 19:55 J	-4708499.90	-4708499.67	-4708499.44	0.0498	0.0051
Uranus	-17605-12-01 03:21 J	-4708468.61	-4708468.36	-4708468.10	0.0144	0.0007

Uranus -17604-12-06 12:57 J -4708098.14 -4708097.96 -4708097.75 0.0143 0.0095
 Jupiter -17593-11-04 13:40 J -4704112.09 -4704111.93 -4704111.78 0.0498 0.0380
 Pluto -17588-09-03 04:19 J -4702348.54 -4702348.32 -4702348.05 0.0067 0.0029
 Neptune -17580-05-14 20:52 J -4699537.80 -4699537.63 -4699537.42 0.0089 0.0062
 Neptune -17579-05-17 04:33 J -4699170.54 -4699170.31 -4699170.06 0.0089 0.0019
 Neptune -17578-05-19 15:21 J -4698803.10 -4698802.86 -4698802.59 0.0089 0.0023
 Saturn -17578-12-04 23:02 J -4698603.70 -4698603.54 -4698603.38 0.0265 0.0203
 Neptune -17577-05-21 03:50 J -4698435.49 -4698435.34 -4698435.16 0.0089 0.0066
 Saturn -17564-06-03 02:52 J -4693674.61 -4693674.38 -4693674.15 0.0297 0.0028
 Jupiter -17563-04-30 12:43 J -4693343.06 -4693342.97 -4693342.86 0.0527 0.0475
 Uranus -17562-05-28 12:57 J -4692950.12 -4692949.96 -4692949.78 0.0134 0.0099
 Uranus -17561-05-31 12:14 J -4692581.22 -4692580.99 -4692580.74 0.0135 0.0025
 Uranus -17560-06-05 00:28 J -4692211.72 -4692211.48 -4692211.23 0.0135 0.0026
 Uranus -17559-06-09 00:14 J -4691842.63 -4691842.49 -4691842.32 0.0135 0.0104
 Jupiter -17551-05-05 14:09 J -4688955.13 -4688954.91 -4688954.69 0.0528 0.0010
 Saturn -17549-11-29 05:45 J -4688016.50 -4688016.26 -4688016.02 0.0264 0.0065
 Jupiter -17539-05-10 12:14 J -4684567.10 -4684566.99 -4684566.87 0.0528 0.0461
 Uranus -17523-11-22 04:19 J -4678527.33 -4678527.32 -4678527.27 0.0144 0.0144
 Jupiter -17522-10-31 03:36 J -4678184.58 -4678184.35 -4678184.12 0.0499 0.0134
 Uranus -17522-11-27 12:14 J -4678157.21 -4678156.99 -4678156.75 0.0144 0.0073
 Uranus -17521-12-01 10:33 J -4677787.31 -4677787.06 -4677786.81 0.0144 0.0022
 Uranus -17520-12-06 18:57 J -4677416.89 -4677416.71 -4677416.49 0.0143 0.0092
 Jupiter -17510-11-04 10:19 J -4673797.25 -4673797.07 -4673796.88 0.0498 0.0311
 Saturn -17505-06-04 18:57 J -4672122.92 -4672122.71 -4672122.49 0.0297 0.0122
 Pluto -17501-03-09 12:57 J -4670749.23 -4670748.96 -4670748.69 0.0077 0.0007
 Neptune -17499-11-10 13:40 J -4669773.05 -4669772.93 -4669772.75 0.0088 0.0074
 Neptune -17498-11-13 03:07 J -4669405.61 -4669405.37 -4669405.12 0.0088 0.0024
 Neptune -17497-11-14 12:57 J -4669038.23 -4669037.96 -4669037.69 0.0088 0.0009
 Neptune -17496-11-17 05:45 J -4668670.44 -4668670.26 -4668670.05 0.0088 0.0058
 Saturn -17490-12-01 06:28 J -4666465.48 -4666465.23 -4666464.97 0.0264 0.0006

Mars	-17479-10-07 07:40 J	-4662502.35	-4662502.18	-4662502.01	0.1768	0.0867
Uranus	-17478-05-29 00:00 J	-4662268.68	-4662268.50	-4662268.29	0.0134	0.0085
Uranus	-17477-06-01 00:14 J	-4661899.72	-4661899.49	-4661899.25	0.0135	0.0032
Saturn	-17476-05-29 16:19 J	-4661536.96	-4661536.82	-4661536.67	0.0299	0.0244
Uranus	-17476-06-05 12:14 J	-4661530.22	-4661529.99	-4661529.74	0.0135	0.0045
Uranus	-17475-06-09 12:43 J	-4661161.13	-4661160.97	-4661160.79	0.0136	0.0096
Jupiter	-17468-05-04 18:57 J	-4658639.95	-4658639.71	-4658639.47	0.0527	0.0074
Saturn	-17461-11-25 07:40 J	-4655878.24	-4655878.18	-4655878.10	0.0263	0.0251
Jupiter	-17456-05-09 10:33 J	-4654252.21	-4654252.06	-4654251.90	0.0528	0.0372
Saturn	-17446-06-07 05:31 J	-4650571.44	-4650571.27	-4650571.09	0.0297	0.0203
Jupiter	-17439-10-30 03:50 J	-4647869.56	-4647869.34	-4647869.12	0.0499	0.0193
Uranus	-17438-11-27 21:36 J	-4647475.84	-4647475.60	-4647475.35	0.0144	0.0053
Uranus	-17437-12-01 20:52 J	-4647105.88	-4647105.63	-4647105.38	0.0143	0.0014
Uranus	-17436-12-07 04:48 J	-4646735.46	-4646735.30	-4646735.10	0.0143	0.0103
Saturn	-17431-12-02 02:09 J	-4644914.65	-4644914.41	-4644914.16	0.0264	0.0062
Jupiter	-17427-11-04 01:26 J	-4643481.64	-4643481.44	-4643481.24	0.0498	0.0261
Mars	-17425-04-11 19:40 J	-4642956.85	-4642956.68	-4642956.51	0.1752	0.0906
Saturn	-17417-05-30 18:14 J	-4639985.93	-4639985.74	-4639985.54	0.0299	0.0172
Neptune	-17416-05-14 03:50 J	-4639637.37	-4639637.34	-4639637.24	0.0089	0.0087
Neptune	-17415-05-16 15:07 J	-4639270.11	-4639269.87	-4639269.62	0.0089	0.0035
Neptune	-17414-05-19 04:48 J	-4638902.55	-4638902.30	-4638902.06	0.0089	0.0003
Neptune	-17413-05-20 10:04 J	-4638535.28	-4638535.08	-4638534.84	0.0089	0.0047
Neptune	-17412-05-23 02:52 J	-4638167.47	-4638167.38	-4638167.25	0.0089	0.0080
Saturn	-17402-11-27 10:33 J	-4634327.22	-4634327.06	-4634326.89	0.0263	0.0193
Mars	-17400-10-09 21:07 J	-4633644.75	-4633644.62	-4633644.48	0.1773	0.1184
Uranus	-17394-05-29 12:14 J	-4631587.17	-4631586.99	-4631586.79	0.0134	0.0088
Uranus	-17393-06-01 12:57 J	-4631218.20	-4631217.96	-4631217.72	0.0135	0.0015
Uranus	-17392-06-06 00:00 J	-4630848.75	-4630848.50	-4630848.26	0.0135	0.0037
Uranus	-17391-06-10 00:43 J	-4630479.58	-4630479.47	-4630479.33	0.0136	0.0115
Saturn	-17387-06-08 05:02 J	-4629020.39	-4629020.29	-4629020.18	0.0297	0.0267

Jupiter	-17385-05-03 19:55 J	-4628324.88	-4628324.67	-4628324.45	0.0527	0.0157
Jupiter	-17373-05-09 00:00 J	-4623936.69	-4623936.50	-4623936.31	0.0528	0.0305
Saturn	-17372-12-03 00:43 J	-4623363.68	-4623363.47	-4623363.24	0.0264	0.0114
Saturn	-17358-06-01 21:07 J	-4618434.83	-4618434.62	-4618434.40	0.0299	0.0111
Jupiter	-17356-10-29 16:48 J	-4617554.00	-4617553.80	-4617553.60	0.0499	0.0258
Uranus	-17355-11-23 03:50 J	-4617164.44	-4617164.34	-4617164.24	0.0144	0.0132
Uranus	-17354-11-28 08:38 J	-4616794.36	-4616794.14	-4616793.88	0.0144	0.0062
Uranus	-17353-12-02 08:38 J	-4616424.38	-4616424.14	-4616423.89	0.0143	0.0033
Uranus	-17352-12-07 15:36 J	-4616054.03	-4616053.85	-4616053.65	0.0143	0.0100
Mars	-17346-04-15 11:16 J	-4614099.12	-4614099.03	-4614098.93	0.1748	0.1494
Jupiter	-17344-11-03 01:11 J	-4613166.67	-4613166.45	-4613166.22	0.0499	0.0196
Saturn	-17343-11-28 05:45 J	-4612776.47	-4612776.26	-4612776.04	0.0262	0.0142
Pluto	-17340-09-04 18:28 J	-4611764.94	-4611764.73	-4611764.50	0.0067	0.0032
Neptune	-17334-11-12 07:26 J	-4609505.39	-4609505.19	-4609504.95	0.0088	0.0051
Neptune	-17333-11-14 01:55 J	-4609137.67	-4609137.42	-4609137.16	0.0088	0.0006
Neptune	-17332-11-16 07:40 J	-4608770.41	-4608770.18	-4608769.92	0.0088	0.0031
Neptune	-17331-11-19 03:50 J	-4608402.46	-4608402.34	-4608402.20	0.0088	0.0076
Saturn	-17313-12-04 00:43 J	-4601812.66	-4601812.47	-4601812.27	0.0264	0.0162
Uranus	-17310-05-29 22:04 J	-4600905.78	-4600905.58	-4600905.36	0.0134	0.0076
Uranus	-17309-06-01 23:45 J	-4600536.74	-4600536.51	-4600536.26	0.0135	0.0022
Uranus	-17308-06-06 10:19 J	-4600167.30	-4600167.07	-4600166.83	0.0135	0.0054
Uranus	-17307-06-10 12:28 J	-4599798.13	-4599797.98	-4599797.82	0.0136	0.0105
Jupiter	-17302-05-04 13:55 J	-4598009.13	-4598008.92	-4598008.70	0.0527	0.0211
Saturn	-17299-06-02 20:23 J	-4596883.88	-4596883.65	-4596883.41	0.0299	0.0060
Jupiter	-17290-05-09 06:28 J	-4593621.42	-4593621.23	-4593621.02	0.0527	0.0260
Saturn	-17284-11-28 19:55 J	-4591225.91	-4591225.67	-4591225.43	0.0262	0.0094
Jupiter	-17273-10-28 22:33 J	-4587238.75	-4587238.56	-4587238.36	0.0500	0.0295
Uranus	-17271-11-23 15:21 J	-4586482.93	-4586482.86	-4586482.74	0.0144	0.0134
Uranus	-17270-11-28 20:09 J	-4586112.91	-4586112.66	-4586112.40	0.0144	0.0041
Uranus	-17269-12-02 21:07 J	-4585742.86	-4585742.62	-4585742.37	0.0143	0.0025

Uranus	-17268-12-08 02:52 J	-4585372.52	-4585372.38	-4585372.20	0.0143	0.0114
Jupiter	-17261-11-02 17:31 J	-4582850.98	-4582850.77	-4582850.55	0.0499	0.0176
Saturn	-17254-12-05 19:26 J	-4580261.83	-4580261.69	-4580261.52	0.0264	0.0208
Pluto	-17253-03-10 20:38 J	-4580165.89	-4580165.64	-4580165.38	0.0077	0.0009
Neptune	-17251-05-16 04:33 J	-4579369.48	-4579369.31	-4579369.12	0.0089	0.0061
Neptune	-17250-05-18 10:04 J	-4579002.33	-4579002.08	-4579001.82	0.0089	0.0020
Neptune	-17249-05-20 03:21 J	-4578634.60	-4578634.36	-4578634.11	0.0089	0.0022
Neptune	-17248-05-22 06:57 J	-4578267.38	-4578267.21	-4578267.03	0.0089	0.0064
Saturn	-17240-06-03 12:14 J	-4575333.24	-4575332.99	-4575332.74	0.0299	0.0008
Uranus	-17226-05-30 07:40 J	-4570224.37	-4570224.18	-4570223.96	0.0134	0.0079
Uranus	-17225-06-02 10:19 J	-4569855.31	-4569855.07	-4569854.83	0.0135	0.0007
Saturn	-17225-11-29 13:40 J	-4569675.16	-4569674.93	-4569674.68	0.0262	0.0047
Uranus	-17224-06-06 19:11 J	-4569485.93	-4569485.70	-4569485.45	0.0135	0.0044
Uranus	-17223-06-10 21:50 J	-4569116.68	-4569116.59	-4569116.46	0.0136	0.0122
Jupiter	-17219-05-03 17:45 J	-4567693.96	-4567693.76	-4567693.56	0.0526	0.0270
Jupiter	-17207-05-08 21:21 J	-4563305.82	-4563305.61	-4563305.41	0.0527	0.0204
Mars	-17195-10-07 02:23 J	-4558771.53	-4558771.40	-4558771.26	0.1761	0.1316
Saturn	-17195-12-06 10:33 J	-4558711.12	-4558711.06	-4558710.98	0.0264	0.0253
Jupiter	-17190-10-29 14:38 J	-4556923.06	-4556922.89	-4556922.72	0.0499	0.0323
Uranus	-17187-11-24 02:09 J	-4555801.53	-4555801.41	-4555801.26	0.0144	0.0121
Uranus	-17186-11-29 04:48 J	-4555431.54	-4555431.30	-4555431.03	0.0144	0.0051
Uranus	-17185-12-03 06:57 J	-4555061.44	-4555061.21	-4555060.96	0.0143	0.0043
Uranus	-17184-12-08 11:45 J	-4554691.18	-4554691.01	-4554690.83	0.0143	0.0108
Saturn	-17181-06-04 01:11 J	-4553782.69	-4553782.45	-4553782.21	0.0299	0.0040
Jupiter	-17178-11-03 01:55 J	-4552535.66	-4552535.42	-4552535.18	0.0499	0.0124
Neptune	-17170-11-11 22:19 J	-4549604.69	-4549604.57	-4549604.41	0.0088	0.0074
Neptune	-17169-11-13 04:04 J	-4549237.57	-4549237.33	-4549237.07	0.0088	0.0024
Neptune	-17168-11-15 23:45 J	-4548869.76	-4548869.51	-4548869.24	0.0088	0.0009
Neptune	-17167-11-18 05:45 J	-4548502.44	-4548502.26	-4548502.05	0.0088	0.0058
Saturn	-17166-12-01 13:55 J	-4548124.16	-4548123.92	-4548123.68	0.0262	0.0003

Uranus	-17143-05-26 07:40 J	-4539912.18	-4539912.18	-4539912.15	0.0134	0.0134
Uranus	-17142-05-30 14:38 J	-4539543.10	-4539542.89	-4539542.66	0.0134	0.0070
Mars	-17141-04-11 20:38 J	-4539225.79	-4539225.64	-4539225.48	0.1760	0.1070
Uranus	-17141-06-02 18:28 J	-4539173.97	-4539173.73	-4539173.49	0.0135	0.0015
Uranus	-17140-06-07 02:38 J	-4538804.62	-4538804.39	-4538804.15	0.0135	0.0059
Uranus	-17139-06-11 06:57 J	-4538435.34	-4538435.21	-4538435.06	0.0136	0.0110
Saturn	-17137-11-25 11:31 J	-4537537.06	-4537537.02	-4537536.95	0.0261	0.0255
Jupiter	-17136-05-03 09:21 J	-4537378.28	-4537378.11	-4537377.93	0.0526	0.0337
Jupiter	-17124-05-08 06:00 J	-4532990.48	-4532990.25	-4532990.02	0.0527	0.0160
Saturn	-17122-06-05 21:21 J	-4532231.83	-4532231.61	-4532231.39	0.0299	0.0096
Mars	-17116-10-10 06:28 J	-4529913.39	-4529913.23	-4529913.07	0.1766	0.1092
Jupiter	-17107-10-28 21:21 J	-4526607.77	-4526607.61	-4526607.45	0.0500	0.0379
Saturn	-17107-12-02 15:36 J	-4526573.10	-4526572.85	-4526572.61	0.0262	0.0057
Uranus	-17103-11-24 07:40 J	-4525120.29	-4525120.18	-4525120.05	0.0144	0.0125
Uranus	-17102-11-29 09:36 J	-4524750.36	-4524750.10	-4524749.84	0.0144	0.0036
Uranus	-17101-12-03 13:26 J	-4524380.18	-4524379.94	-4524379.69	0.0144	0.0030
Uranus	-17100-12-08 16:48 J	-4524009.93	-4524009.80	-4524009.64	0.0143	0.0119
Jupiter	-17095-11-02 07:40 J	-4522220.40	-4522220.18	-4522219.95	0.0499	0.0088
Saturn	-17093-05-29 21:07 J	-4521645.69	-4521645.62	-4521645.55	0.0301	0.0288
Pluto	-17092-09-05 19:11 J	-4521181.88	-4521181.70	-4521181.49	0.0067	0.0043
Pluto	-17091-09-07 16:48 J	-4520814.96	-4520814.80	-4520814.64	0.0067	0.0052
Neptune	-17087-05-15 11:16 J	-4519469.09	-4519469.03	-4519468.95	0.0089	0.0086
Neptune	-17086-05-18 04:48 J	-4519101.52	-4519101.30	-4519101.05	0.0089	0.0035
Neptune	-17085-05-19 08:52 J	-4518734.38	-4518734.13	-4518733.87	0.0089	0.0003
Neptune	-17084-05-22 01:26 J	-4518366.64	-4518366.44	-4518366.21	0.0089	0.0048
Neptune	-17083-05-24 07:26 J	-4517999.29	-4517999.19	-4517999.07	0.0089	0.0080
Saturn	-17078-11-27 08:52 J	-4515986.28	-4515986.13	-4515985.96	0.0261	0.0199
Saturn	-17063-06-07 00:14 J	-4510680.68	-4510680.49	-4510680.29	0.0299	0.0160
Mars	-17062-04-15 20:09 J	-4510367.76	-4510367.66	-4510367.55	0.1755	0.1489
Uranus	-17059-05-26 17:16 J	-4509230.79	-4509230.78	-4509230.71	0.0134	0.0132

Uranus	-17058-05-30 23:02 J	-4508861.74	-4508861.54	-4508861.30	0.0134	0.0072
Uranus	-17057-06-03 04:04 J	-4508492.57	-4508492.33	-4508492.09	0.0135	0.0003
Uranus	-17056-06-07 10:19 J	-4508123.30	-4508123.07	-4508122.82	0.0135	0.0050
Uranus	-17055-06-11 15:50 J	-4507753.92	-4507753.84	-4507753.75	0.0135	0.0126
Jupiter	-17053-05-02 17:45 J	-4507062.92	-4507062.76	-4507062.59	0.0526	0.0381
Saturn	-17048-12-03 13:55 J	-4505022.15	-4505021.92	-4505021.68	0.0262	0.0113
Jupiter	-17041-05-07 14:52 J	-4502675.09	-4502674.88	-4502674.66	0.0527	0.0106
Saturn	-17034-05-31 18:14 J	-4500094.90	-4500094.74	-4500094.57	0.0301	0.0220
Jupiter	-17024-10-28 02:09 J	-4496292.52	-4496292.41	-4496292.28	0.0500	0.0423
Uranus	-17019-11-24 12:43 J	-4494439.10	-4494438.97	-4494438.82	0.0144	0.0120
Saturn	-17019-11-28 15:50 J	-4494435.05	-4494434.84	-4494434.64	0.0262	0.0139
Uranus	-17018-11-29 12:28 J	-4494069.22	-4494068.98	-4494068.72	0.0144	0.0047
Uranus	-17017-12-03 17:45 J	-4493698.99	-4493698.76	-4493698.52	0.0144	0.0045
Uranus	-17016-12-08 19:11 J	-4493328.86	-4493328.70	-4493328.51	0.0143	0.0108
Jupiter	-17012-11-02 00:00 J	-4491904.73	-4491904.50	-4491904.26	0.0499	0.0042
Neptune	-17006-11-11 01:11 J	-4489704.45	-4489704.45	-4489704.43	0.0088	0.0088
Pluto	-17005-03-11 21:36 J	-4489582.81	-4489582.60	-4489582.34	0.0077	0.0035
Neptune	-17005-11-12 20:38 J	-4489336.85	-4489336.64	-4489336.41	0.0088	0.0050
Saturn	-17004-06-08 05:31 J	-4489129.41	-4489129.27	-4489129.11	0.0299	0.0231
Neptune	-17004-11-15 03:21 J	-4488969.61	-4488969.36	-4488969.10	0.0088	0.0006
Neptune	-17003-11-17 20:09 J	-4488601.91	-4488601.66	-4488601.40	0.0088	0.0031
Neptune	-17002-11-20 06:14 J	-4488234.34	-4488234.24	-4488234.09	0.0088	0.0076

17TH MILLENNIUM BCE

This is a list of transits of Moon in the 17th millennium BCE.

	FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT								
	TIME								
Jupiter	-17000-11-06 01:40 J	-4487517.54	-4487517.43	-4487517.31	0.0498	0.0435			
Saturn	-16989-12-04 14:38 J	-4483471.08	-4483470.89	-4483470.70	0.0263	0.0175			
Uranus	-16975-05-27 02:52 J	-4478549.46	-4478549.38	-4478549.30	0.0134	0.0125			
Saturn	-16975-06-01 22:48 J	-4478543.75	-4478543.55	-4478543.33	0.0301	0.0141			
Uranus	-16974-05-31 07:11 J	-4478180.42	-4478180.20	-4478179.96	0.0134	0.0065			
Uranus	-16973-06-03 13:26 J	-4477811.18	-4477810.94	-4477810.69	0.0135	0.0008			
Uranus	-16972-06-07 18:57 J	-4477441.92	-4477441.71	-4477441.47	0.0135	0.0065			
Uranus	-16971-06-12 01:55 J	-4477072.53	-4477072.42	-4477072.28	0.0135	0.0116			
Jupiter	-16970-05-02 21:21 J	-4476747.70	-4476747.61	-4476747.50	0.0526	0.0468			
Saturn	-16960-11-30 02:09 J	-4472883.64	-4472883.41	-4472883.17	0.0262	0.0072			
Jupiter	-16958-05-07 18:43 J	-4472359.96	-4472359.72	-4472359.48	0.0527	0.0024			
Jupiter	-16941-10-27 11:02 J	-4465977.07	-4465977.04	-4465977.00	0.0500	0.0491			
Uranus	-16935-11-24 18:14 J	-4463757.86	-4463757.74	-4463757.58	0.0144	0.0121			
Uranus	-16934-11-29 17:31 J	-4463388.02	-4463387.77	-4463387.51	0.0144	0.0034			
Uranus	-16933-12-04 00:28 J	-4463017.73	-4463017.48	-4463017.24	0.0144	0.0032			
Uranus	-16932-12-09 00:14 J	-4462647.61	-4462647.49	-4462647.33	0.0143	0.0122			
Saturn	-16930-12-06 23:45 J	-4461919.58	-4461919.51	-4461919.41	0.0263	0.0246			
Jupiter	-16929-10-31 16:04 J	-4461590.06	-4461589.83	-4461589.59	0.0499	0.0045			
Neptune	-16922-05-17 09:36 J	-4459201.28	-4459201.10	-4459200.91	0.0089	0.0060			
Neptune	-16921-05-19 02:09 J	-4458833.66	-4458833.41	-4458833.15	0.0089	0.0019			
Neptune	-16920-05-21 09:07 J	-4458466.36	-4458466.12	-4458465.88	0.0089	0.0023			
Neptune	-16919-05-23 21:21 J	-4458098.77	-4458098.61	-4458098.40	0.0089	0.0064			
Jupiter	-16917-11-05 12:43 J	-4457202.12	-4457201.97	-4457201.81	0.0499	0.0362			
Saturn	-16916-06-03 14:38 J	-4456992.12	-4456991.89	-4456991.66	0.0300	0.0045			
Mars	-16911-10-07 12:28 J	-4455040.09	-4455039.98	-4455039.87	0.1754	0.1374			
Saturn	-16901-12-01 11:31 J	-4451332.27	-4451332.02	-4451331.76	0.0262	0.0005			
Uranus	-16891-05-27 13:11 J	-4447868.02	-4447867.95	-4447867.85	0.0134	0.0125			

Uranus	-16890-05-31 16:33 J	-4447499.03	-4447498.81	-4447498.57	0.0134	0.0062
Uranus	-16889-06-04 00:00 J	-4447129.74	-4447129.50	-4447129.25	0.0135	0.0005
Uranus	-16888-06-08 04:04 J	-4446760.55	-4446760.33	-4446760.08	0.0135	0.0058
Uranus	-16887-06-12 12:14 J	-4446391.03	-4446390.99	-4446390.94	0.0136	0.0133
Jupiter	-16875-05-06 17:16 J	-4442045.00	-4442044.78	-4442044.55	0.0527	0.0048
Saturn	-16872-11-26 11:31 J	-4440745.10	-4440745.02	-4440744.91	0.0261	0.0241
Jupiter	-16863-05-11 19:40 J	-4437656.78	-4437656.68	-4437656.58	0.0527	0.0475
Mars	-16857-04-12 16:48 J	-4435493.95	-4435493.80	-4435493.64	0.1766	0.0907
Saturn	-16857-06-05 10:33 J	-4435440.29	-4435440.06	-4435439.83	0.0300	0.0062
Uranus	-16851-11-25 03:50 J	-4433076.47	-4433076.34	-4433076.17	0.0144	0.0114
Uranus	-16850-11-30 01:40 J	-4432706.68	-4432706.43	-4432706.17	0.0144	0.0040
Uranus	-16849-12-04 08:52 J	-4432336.35	-4432336.13	-4432335.88	0.0143	0.0051
Uranus	-16848-12-09 07:55 J	-4431966.33	-4431966.17	-4431966.00	0.0143	0.0112
Jupiter	-16846-11-01 01:40 J	-4431274.66	-4431274.43	-4431274.21	0.0499	0.0117
Pluto	-16843-09-08 14:23 J	-4430232.11	-4430231.90	-4430231.67	0.0067	0.0032
Saturn	-16842-12-03 18:57 J	-4429780.95	-4429780.71	-4429780.46	0.0263	0.0080
Neptune	-16841-11-12 01:40 J	-4429436.56	-4429436.43	-4429436.28	0.0088	0.0073
Neptune	-16840-11-14 17:02 J	-4429069.04	-4429068.79	-4429068.52	0.0088	0.0024
Neptune	-16839-11-17 04:19 J	-4428701.56	-4428701.32	-4428701.06	0.0088	0.0010
Neptune	-16838-11-19 14:52 J	-4428334.05	-4428333.88	-4428333.65	0.0088	0.0060
Jupiter	-16834-11-05 10:48 J	-4426887.25	-4426887.05	-4426886.85	0.0499	0.0276
Mars	-16832-10-10 00:43 J	-4426182.64	-4426182.47	-4426182.30	0.1758	0.0931
Saturn	-16813-11-28 03:07 J	-4419193.56	-4419193.37	-4419193.18	0.0262	0.0164
Uranus	-16807-05-27 22:33 J	-4417186.67	-4417186.56	-4417186.43	0.0134	0.0117
Uranus	-16806-06-01 00:57 J	-4416817.68	-4416817.46	-4416817.21	0.0134	0.0058
Uranus	-16805-06-04 10:04 J	-4416448.32	-4416448.08	-4416447.83	0.0135	0.0002
Uranus	-16804-06-08 13:40 J	-4416079.14	-4416078.93	-4416078.70	0.0135	0.0072
Uranus	-16803-06-12 23:16 J	-4415709.62	-4415709.53	-4415709.42	0.0136	0.0123
Saturn	-16798-06-08 04:48 J	-4413888.49	-4413888.30	-4413888.09	0.0299	0.0174
Jupiter	-16792-05-05 20:09 J	-4411729.89	-4411729.66	-4411729.44	0.0526	0.0149

Saturn	-16783-12-05 04:19 J	-4408229.51	-4408229.32	-4408229.11	0.0263	0.0160
Jupiter	-16780-05-10 06:43 J	-4407342.39	-4407342.22	-4407342.05	0.0527	0.0354
Mars	-16778-04-16 01:11 J	-4406636.56	-4406636.45	-4406636.33	0.1762	0.1391
Saturn	-16769-06-01 04:19 J	-4403302.50	-4403302.32	-4403302.14	0.0300	0.0187
Uranus	-16767-11-25 14:23 J	-4402395.05	-4402394.90	-4402394.72	0.0144	0.0109
Uranus	-16766-11-30 11:45 J	-4402025.27	-4402025.01	-4402024.75	0.0144	0.0026
Uranus	-16765-12-04 20:23 J	-4401654.89	-4401654.65	-4401654.41	0.0143	0.0041
Uranus	-16764-12-09 18:14 J	-4401284.84	-4401284.74	-4401284.63	0.0143	0.0130
Jupiter	-16763-10-30 19:55 J	-4400959.89	-4400959.67	-4400959.45	0.0499	0.0203
Neptune	-16758-05-17 04:04 J	-4399300.41	-4399300.33	-4399300.24	0.0089	0.0084
Neptune	-16757-05-18 10:48 J	-4398933.26	-4398933.05	-4398932.80	0.0089	0.0034
Neptune	-16756-05-20 23:02 J	-4398565.80	-4398565.54	-4398565.27	0.0089	0.0001
Neptune	-16755-05-23 10:33 J	-4398198.25	-4398198.06	-4398197.84	0.0089	0.0049
Neptune	-16754-05-25 17:45 J	-4397830.86	-4397830.76	-4397830.64	0.0089	0.0081
Saturn	-16754-11-30 17:31 J	-4397642.00	-4397641.77	-4397641.53	0.0262	0.0087
Jupiter	-16751-11-04 09:50 J	-4396572.30	-4396572.09	-4396571.87	0.0498	0.0182
Saturn	-16739-06-09 22:33 J	-4392336.60	-4392336.56	-4392336.49	0.0299	0.0291
Saturn	-16724-12-06 18:28 J	-4386677.83	-4386677.73	-4386677.63	0.0263	0.0239
Uranus	-16723-05-28 08:52 J	-4386505.23	-4386505.13	-4386505.00	0.0134	0.0118
Uranus	-16722-06-01 10:04 J	-4386136.30	-4386136.08	-4386135.83	0.0134	0.0053
Uranus	-16721-06-04 20:09 J	-4385766.90	-4385766.66	-4385766.42	0.0135	0.0011
Uranus	-16720-06-08 22:33 J	-4385397.78	-4385397.56	-4385397.33	0.0135	0.0066
Saturn	-16710-06-04 05:45 J	-4381750.48	-4381750.26	-4381750.03	0.0300	0.0068
Jupiter	-16709-05-04 07:40 J	-4381415.37	-4381415.18	-4381414.97	0.0526	0.0266
Jupiter	-16697-05-09 12:14 J	-4377027.18	-4377026.99	-4377026.79	0.0527	0.0258
Saturn	-16695-12-02 01:11 J	-4376090.70	-4376090.45	-4376090.19	0.0262	0.0014
Uranus	-16683-11-26 01:40 J	-4371713.59	-4371713.43	-4371713.24	0.0144	0.0104
Uranus	-16682-11-30 22:19 J	-4371343.82	-4371343.57	-4371343.31	0.0144	0.0029
Uranus	-16681-12-05 06:57 J	-4370973.43	-4370973.21	-4370972.97	0.0143	0.0060
Jupiter	-16680-10-29 20:23 J	-4370644.83	-4370644.65	-4370644.46	0.0500	0.0295

Uranus	-16680-12-10 03:50 J	-4370603.47	-4370603.34	-4370603.19	0.0143	0.0121
Neptune	-16677-11-11 14:23 J	-4369535.93	-4369535.90	-4369535.83	0.0088	0.0087
Neptune	-16676-11-14 02:52 J	-4369168.58	-4369168.38	-4369168.15	0.0088	0.0047
Neptune	-16675-11-16 13:11 J	-4368801.21	-4368800.95	-4368800.67	0.0088	0.0005
Neptune	-16674-11-19 05:45 J	-4368433.48	-4368433.26	-4368433.00	0.0088	0.0035
Neptune	-16673-11-20 11:45 J	-4368066.12	-4368066.01	-4368065.85	0.0088	0.0076
Jupiter	-16668-11-03 11:16 J	-4366257.27	-4366257.03	-4366256.79	0.0499	0.0092
Saturn	-16666-11-27 06:14 J	-4365503.28	-4365503.24	-4365503.16	0.0261	0.0252
Jupiter	-16656-11-07 21:07 J	-4361869.67	-4361869.62	-4361869.56	0.0499	0.0482
Saturn	-16651-06-06 04:04 J	-4360198.56	-4360198.33	-4360198.09	0.0300	0.0045
Uranus	-16639-05-28 16:33 J	-4355823.94	-4355823.81	-4355823.65	0.0134	0.0109
Uranus	-16638-06-01 17:02 J	-4355455.01	-4355454.79	-4355454.54	0.0134	0.0053
Uranus	-16637-06-05 04:33 J	-4355085.56	-4355085.31	-4355085.07	0.0135	0.0009
Uranus	-16636-06-09 05:45 J	-4354716.45	-4354716.26	-4354716.03	0.0135	0.0078
Saturn	-16636-12-03 05:02 J	-4354539.54	-4354539.29	-4354539.04	0.0263	0.0057
Uranus	-16635-06-13 17:16 J	-4354346.83	-4354346.78	-4354346.68	0.0136	0.0129
Mars	-16627-10-08 10:04 J	-4351308.21	-4351308.08	-4351307.94	0.1747	0.1220
Jupiter	-16626-05-04 14:52 J	-4351100.04	-4351099.88	-4351099.71	0.0526	0.0357
Jupiter	-16614-05-09 06:57 J	-4346712.43	-4346712.21	-4346711.98	0.0526	0.0157
Saturn	-16607-11-28 17:16 J	-4343951.95	-4343951.78	-4343951.60	0.0261	0.0182
Uranus	-16599-11-26 09:50 J	-4341032.27	-4341032.09	-4341031.90	0.0144	0.0099
Uranus	-16598-12-01 06:14 J	-4340662.50	-4340662.24	-4340661.98	0.0144	0.0017
Jupiter	-16597-10-29 01:11 J	-4340329.62	-4340329.45	-4340329.28	0.0500	0.0364
Uranus	-16597-12-05 16:04 J	-4340292.06	-4340291.83	-4340291.58	0.0143	0.0050
Uranus	-16596-12-10 12:14 J	-4339922.03	-4339921.99	-4339921.91	0.0143	0.0139
Pluto	-16595-09-09 22:19 J	-4339648.82	-4339648.57	-4339648.29	0.0067	0.0009
Neptune	-16593-05-18 00:14 J	-4339032.69	-4339032.49	-4339032.28	0.0089	0.0057
Neptune	-16592-05-20 12:57 J	-4338665.19	-4338664.96	-4338664.70	0.0089	0.0019
Saturn	-16592-06-07 16:48 J	-4338647.01	-4338646.80	-4338646.58	0.0300	0.0150
Neptune	-16591-05-22 19:40 J	-4338297.92	-4338297.68	-4338297.42	0.0089	0.0025

Neptune	-16590-05-25 12:00 J	-4337930.15	-4337930.00	-4337929.81	0.0089	0.0065
Jupiter	-16585-11-02 11:16 J	-4335942.26	-4335942.03	-4335941.80	0.0499	0.0021
Saturn	-16577-12-04 10:19 J	-4332988.28	-4332988.07	-4332987.84	0.0263	0.0124
Mars	-16573-04-13 09:21 J	-4331762.28	-4331762.11	-4331761.94	0.1773	0.0861
Jupiter	-16573-11-07 06:57 J	-4331554.34	-4331554.21	-4331554.07	0.0498	0.0412
Saturn	-16563-06-01 14:09 J	-4328061.06	-4328060.91	-4328060.75	0.0301	0.0224
Uranus	-16555-05-29 01:11 J	-4325142.56	-4325142.45	-4325142.30	0.0134	0.0113
Uranus	-16554-06-02 00:43 J	-4324773.70	-4324773.47	-4324773.22	0.0134	0.0046
Uranus	-16553-06-05 12:28 J	-4324404.22	-4324403.98	-4324403.73	0.0135	0.0015
Uranus	-16552-06-09 12:57 J	-4324035.18	-4324034.96	-4324034.75	0.0135	0.0071
Mars	-16548-10-10 17:16 J	-4322450.93	-4322450.78	-4322450.64	0.1751	0.0986
Saturn	-16548-11-29 22:33 J	-4322400.79	-4322400.56	-4322400.33	0.0261	0.0115
Jupiter	-16543-05-03 10:19 J	-4320785.19	-4320785.07	-4320784.94	0.0525	0.0443
Saturn	-16533-06-08 23:16 J	-4317095.66	-4317095.53	-4317095.38	0.0300	0.0245
Jupiter	-16531-05-08 09:50 J	-4316397.31	-4316397.09	-4316396.87	0.0526	0.0063
Jupiter	-16519-05-13 09:21 J	-4312009.16	-4312009.11	-4312009.04	0.0527	0.0508
Saturn	-16518-12-06 16:48 J	-4311436.97	-4311436.80	-4311436.63	0.0263	0.0183
Uranus	-16515-11-26 14:52 J	-4310351.06	-4310350.88	-4310350.68	0.0144	0.0099
Jupiter	-16514-10-29 03:50 J	-4310014.45	-4310014.34	-4310014.22	0.0500	0.0428
Uranus	-16514-12-01 11:16 J	-4309981.28	-4309981.03	-4309980.77	0.0144	0.0022
Uranus	-16513-12-05 21:07 J	-4309610.83	-4309610.62	-4309610.38	0.0143	0.0065
Neptune	-16512-11-13 10:04 J	-4309268.22	-4309268.08	-4309267.90	0.0088	0.0070
Uranus	-16512-12-10 16:48 J	-4309240.91	-4309240.80	-4309240.66	0.0143	0.0125
Neptune	-16511-11-16 04:04 J	-4308900.57	-4308900.33	-4308900.07	0.0088	0.0021
Neptune	-16510-11-18 10:19 J	-4308533.33	-4308533.07	-4308532.80	0.0088	0.0011
Neptune	-16509-11-20 05:31 J	-4308165.44	-4308165.27	-4308165.06	0.0088	0.0061
Pluto	-16508-03-16 04:33 J	-4308049.53	-4308049.31	-4308049.08	0.0077	0.0040
Saturn	-16504-06-03 00:14 J	-4306509.69	-4306509.49	-4306509.27	0.0301	0.0137
Jupiter	-16502-11-02 20:09 J	-4305626.90	-4305626.66	-4305626.42	0.0500	0.0063
Mars	-16494-04-17 00:28 J	-4302904.57	-4302904.48	-4302904.39	0.1768	0.1520

Jupiter	-16490-11-07 03:07 J	-4301239.54	-4301239.37	-4301239.19	0.0499	0.0338
Saturn	-16489-11-30 19:26 J	-4300849.94	-4300849.69	-4300849.44	0.0261	0.0059
Uranus	-16471-05-29 09:07 J	-4294461.27	-4294461.12	-4294460.95	0.0134	0.0101
Uranus	-16470-06-02 08:09 J	-4294092.39	-4294092.16	-4294091.92	0.0134	0.0048
Uranus	-16469-06-05 20:38 J	-4293722.88	-4293722.64	-4293722.39	0.0135	0.0015
Uranus	-16468-06-09 20:09 J	-4293353.85	-4293353.66	-4293353.45	0.0135	0.0081
Uranus	-16467-06-14 09:07 J	-4292984.17	-4292984.12	-4292984.06	0.0135	0.0132
Jupiter	-16460-05-02 18:57 J	-4290469.76	-4290469.71	-4290469.65	0.0525	0.0507
Saturn	-16459-12-07 18:14 J	-4289885.83	-4289885.74	-4289885.62	0.0262	0.0238
Jupiter	-16448-05-07 20:23 J	-4286081.88	-4286081.65	-4286081.41	0.0526	0.0009
Saturn	-16445-06-04 01:26 J	-4284958.69	-4284958.44	-4284958.20	0.0301	0.0063
Jupiter	-16436-05-12 14:23 J	-4281694.02	-4281693.90	-4281693.78	0.0527	0.0448
Jupiter	-16431-10-28 14:09 J	-4279698.92	-4279698.91	-4279698.90	0.0501	0.0500
Uranus	-16431-11-26 18:28 J	-4279669.92	-4279669.73	-4279669.52	0.0144	0.0093
Uranus	-16430-12-01 15:21 J	-4279300.12	-4279299.86	-4279299.61	0.0144	0.0016
Saturn	-16430-12-02 14:09 J	-4279299.16	-4279298.91	-4279298.66	0.0261	0.0009
Neptune	-16429-05-17 14:23 J	-4279131.97	-4279131.90	-4279131.78	0.0089	0.0082
Uranus	-16429-12-06 01:40 J	-4278929.66	-4278929.43	-4278929.18	0.0143	0.0053
Neptune	-16428-05-19 20:23 J	-4278764.87	-4278764.65	-4278764.39	0.0089	0.0033
Uranus	-16428-12-10 21:07 J	-4278559.64	-4278559.62	-4278559.56	0.0143	0.0141
Neptune	-16427-05-22 13:40 J	-4278397.18	-4278396.93	-4278396.67	0.0089	0.0002
Neptune	-16426-05-24 17:16 J	-4278029.97	-4278029.78	-4278029.56	0.0089	0.0051
Neptune	-16425-05-26 10:19 J	-4277662.14	-4277662.07	-4277661.94	0.0089	0.0083
Jupiter	-16419-11-01 22:48 J	-4275311.78	-4275311.55	-4275311.32	0.0500	0.0119
Jupiter	-16407-11-06 21:21 J	-4270923.79	-4270923.61	-4270923.43	0.0499	0.0303
Uranus	-16387-05-29 19:11 J	-4263779.85	-4263779.70	-4263779.55	0.0134	0.0106
Uranus	-16386-06-02 17:31 J	-4263411.01	-4263410.77	-4263410.53	0.0134	0.0039
Saturn	-16386-06-05 17:31 J	-4263408.02	-4263407.77	-4263407.52	0.0301	0.0002
Uranus	-16385-06-06 06:00 J	-4263041.49	-4263041.25	-4263041.00	0.0135	0.0020
Uranus	-16384-06-10 04:48 J	-4262672.49	-4262672.30	-4262672.08	0.0135	0.0077

Saturn	-16371-12-03 12:57 J	-4257748.20	-4257747.96	-4257747.72	0.0261	0.0036
Jupiter	-16365-05-07 01:11 J	-4255766.68	-4255766.45	-4255766.23	0.0525	0.0057
Jupiter	-16353-05-12 05:16 J	-4251378.44	-4251378.28	-4251378.12	0.0526	0.0382
Neptune	-16348-11-13 02:23 J	-4249367.45	-4249367.40	-4249367.33	0.0088	0.0086
Pluto	-16347-09-10 19:40 J	-4249065.90	-4249065.68	-4249065.45	0.0067	0.0028
Neptune	-16347-11-15 08:09 J	-4249000.38	-4249000.16	-4248999.93	0.0088	0.0045
Uranus	-16347-11-27 01:11 J	-4248988.63	-4248988.45	-4248988.24	0.0144	0.0095
Neptune	-16346-11-18 03:50 J	-4248632.60	-4248632.34	-4248632.08	0.0088	0.0003
Uranus	-16346-12-01 22:48 J	-4248618.80	-4248618.55	-4248618.30	0.0144	0.0016
Neptune	-16345-11-19 09:36 J	-4248265.33	-4248265.10	-4248264.86	0.0088	0.0036
Uranus	-16345-12-06 08:23 J	-4248248.36	-4248248.15	-4248247.91	0.0143	0.0068
Neptune	-16344-11-22 02:52 J	-4247897.48	-4247897.38	-4247897.24	0.0088	0.0078
Uranus	-16344-12-11 03:50 J	-4247878.45	-4247878.34	-4247878.22	0.0143	0.0128
Mars	-16343-10-08 11:45 J	-4247577.13	-4247577.01	-4247576.89	0.1740	0.1376
Saturn	-16342-11-28 14:09 J	-4247161.05	-4247160.91	-4247160.77	0.0260	0.0219
Jupiter	-16336-11-01 18:00 J	-4244995.96	-4244995.75	-4244995.53	0.0500	0.0162
Saturn	-16327-06-06 10:19 J	-4241857.30	-4241857.07	-4241856.84	0.0301	0.0056
Jupiter	-16324-11-05 23:31 J	-4240608.73	-4240608.52	-4240608.30	0.0500	0.0242
Saturn	-16312-12-04 12:14 J	-4236197.22	-4236196.99	-4236196.75	0.0261	0.0078
Uranus	-16303-05-30 03:50 J	-4233098.51	-4233098.34	-4233098.15	0.0134	0.0092
Uranus	-16302-06-03 02:09 J	-4232729.64	-4232729.41	-4232729.16	0.0134	0.0041
Uranus	-16301-06-06 15:07 J	-4232360.11	-4232359.87	-4232359.62	0.0135	0.0023
Uranus	-16300-06-10 14:09 J	-4231991.09	-4231990.91	-4231990.71	0.0135	0.0086
Mars	-16289-04-13 04:04 J	-4228031.49	-4228031.33	-4228031.17	0.1781	0.1041
Saturn	-16283-11-29 04:33 J	-4225610.48	-4225610.31	-4225610.12	0.0260	0.0179
Jupiter	-16282-05-07 18:14 J	-4225450.97	-4225450.74	-4225450.51	0.0526	0.0110
Jupiter	-16270-05-12 11:31 J	-4221063.20	-4221063.02	-4221062.84	0.0526	0.0336
Saturn	-16268-06-07 07:26 J	-4220306.40	-4220306.19	-4220305.97	0.0301	0.0112
Neptune	-16264-05-19 15:36 J	-4218864.03	-4218863.85	-4218863.63	0.0089	0.0055
Mars	-16264-10-11 09:36 J	-4218719.26	-4218719.10	-4218718.95	0.1745	0.1071

Neptune	-16263-05-21 19:40 J	-4218496.92	-4218496.68	-4218496.42	0.0089	0.0017
Uranus	-16263-11-27 10:33 J	-4218307.27	-4218307.06	-4218306.84	0.0144	0.0084
Neptune	-16262-05-24 13:11 J	-4218129.19	-4218128.95	-4218128.70	0.0089	0.0026
Uranus	-16262-12-02 08:23 J	-4217937.40	-4217937.15	-4217936.90	0.0144	0.0009
Neptune	-16261-05-25 18:28 J	-4217761.89	-4217761.73	-4217761.55	0.0089	0.0066
Uranus	-16261-12-06 17:45 J	-4217566.98	-4217566.76	-4217566.51	0.0143	0.0061
Pluto	-16260-03-16 17:31 J	-4217467.00	-4217466.77	-4217466.52	0.0077	0.0025
Jupiter	-16253-10-31 20:09 J	-4214680.88	-4214680.66	-4214680.44	0.0500	0.0225
Saturn	-16253-12-05 05:31 J	-4214646.50	-4214646.27	-4214646.04	0.0261	0.0120
Jupiter	-16241-11-05 13:40 J	-4210293.13	-4210292.93	-4210292.72	0.0500	0.0215
Saturn	-16239-05-31 17:45 J	-4209720.82	-4209720.76	-4209720.68	0.0303	0.0289
Saturn	-16224-11-30 01:55 J	-4204059.63	-4204059.42	-4204059.21	0.0260	0.0133
Uranus	-16219-05-30 13:40 J	-4202417.07	-4202416.93	-4202416.74	0.0134	0.0100
Uranus	-16218-06-03 12:28 J	-4202048.21	-4202047.98	-4202047.73	0.0134	0.0030
Uranus	-16217-06-07 01:11 J	-4201678.69	-4201678.45	-4201678.20	0.0135	0.0027
Uranus	-16216-06-11 00:14 J	-4201309.68	-4201309.49	-4201309.29	0.0135	0.0085
Mars	-16210-04-17 08:38 J	-4199173.26	-4199173.14	-4199173.02	0.1775	0.1425
Saturn	-16209-06-08 03:21 J	-4198755.55	-4198755.36	-4198755.15	0.0301	0.0167
Jupiter	-16199-05-07 02:09 J	-4195135.63	-4195135.41	-4195135.18	0.0526	0.0146
Saturn	-16194-12-06 20:38 J	-4193095.83	-4193095.64	-4193095.43	0.0261	0.0164
Jupiter	-16187-05-12 04:04 J	-4190747.51	-4190747.33	-4190747.14	0.0526	0.0286
Neptune	-16183-11-15 00:43 J	-4189099.63	-4189099.47	-4189099.30	0.0088	0.0069
Neptune	-16182-11-17 06:57 J	-4188732.45	-4188732.21	-4188731.95	0.0088	0.0020
Neptune	-16181-11-19 00:14 J	-4188364.75	-4188364.49	-4188364.21	0.0088	0.0013
Saturn	-16180-06-01 11:31 J	-4188170.16	-4188170.02	-4188169.86	0.0303	0.0231
Neptune	-16180-11-21 10:04 J	-4187997.23	-4187997.08	-4187996.87	0.0088	0.0063
Uranus	-16179-11-27 22:19 J	-4187625.77	-4187625.57	-4187625.34	0.0144	0.0084
Uranus	-16178-12-02 21:07 J	-4187255.88	-4187255.62	-4187255.37	0.0144	0.0005
Uranus	-16177-12-07 05:45 J	-4186885.48	-4186885.26	-4186885.04	0.0143	0.0077
Uranus	-16176-12-12 00:43 J	-4186515.52	-4186515.47	-4186515.39	0.0143	0.0138

Jupiter	-16170-11-01 10:33 J	-4184365.25	-4184365.06	-4184364.87	0.0501	0.0261
Saturn	-16165-12-01 03:35 J	-4182508.57	-4182508.35	-4182508.11	0.0260	0.0085
Jupiter	-16158-11-06 03:50 J	-4179977.57	-4179977.34	-4179977.11	0.0500	0.0185
Saturn	-16150-06-09 20:24 J	-4177204.80	-4177204.65	-4177204.48	0.0301	0.0229
Uranus	-16135-05-30 22:19 J	-4171735.75	-4171735.57	-4171735.36	0.0134	0.0084
Saturn	-16135-12-07 19:26 J	-4171544.81	-4171544.69	-4171544.54	0.0261	0.0218
Uranus	-16134-06-03 21:07 J	-4171366.85	-4171366.62	-4171366.37	0.0134	0.0034
Uranus	-16133-06-07 09:35 J	-4170997.34	-4170997.10	-4170996.84	0.0135	0.0031
Uranus	-16132-06-11 08:38 J	-4170628.30	-4170628.14	-4170627.94	0.0135	0.0093
Saturn	-16121-06-02 14:38 J	-4166619.08	-4166618.89	-4166618.69	0.0303	0.0165
Jupiter	-16116-05-06 14:09 J	-4164820.10	-4164819.91	-4164819.70	0.0525	0.0223
Saturn	-16106-12-03 05:31 J	-4160957.52	-4160957.27	-4160957.01	0.0260	0.0029
Jupiter	-16104-05-11 07:55 J	-4160432.39	-4160432.17	-4160431.95	0.0526	0.0212
Neptune	-16100-05-18 20:24 J	-4158963.74	-4158963.65	-4158963.52	0.0089	0.0080
Neptune	-16099-05-21 13:40 J	-4158596.16	-4158595.93	-4158595.68	0.0089	0.0031
Neptune	-16098-05-23 19:55 J	-4158228.92	-4158228.67	-4158228.43	0.0089	0.0002
Pluto	-16098-09-13 12:28 J	-4158116.16	-4158115.98	-4158115.76	0.0067	0.0040
Neptune	-16097-05-25 08:52 J	-4157861.32	-4157861.13	-4157860.89	0.0089	0.0052
Neptune	-16096-05-27 19:40 J	-4157493.75	-4157493.68	-4157493.58	0.0089	0.0084
Uranus	-16095-11-28 09:21 J	-4156944.34	-4156944.11	-4156943.87	0.0144	0.0071
Uranus	-16094-12-03 08:38 J	-4156574.39	-4156574.14	-4156573.89	0.0144	0.0002
Uranus	-16093-12-07 16:48 J	-4156204.02	-4156203.80	-4156203.56	0.0143	0.0072
Saturn	-16091-06-10 18:00 J	-4155653.75	-4155653.75	-4155653.74	0.0301	0.0301
Jupiter	-16087-10-31 17:02 J	-4154049.97	-4154049.79	-4154049.60	0.0500	0.0321
Jupiter	-16075-11-05 01:26 J	-4149662.66	-4149662.44	-4149662.21	0.0500	0.0120
Saturn	-16062-06-04 21:35 J	-4145067.83	-4145067.60	-4145067.37	0.0303	0.0086
Mars	-16059-10-08 19:55 J	-4143845.78	-4143845.67	-4143845.56	0.1733	0.1382
Uranus	-16051-05-31 07:11 J	-4141054.38	-4141054.20	-4141054.01	0.0134	0.0092
Uranus	-16050-06-04 06:14 J	-4140685.47	-4140685.24	-4140684.99	0.0134	0.0024
Uranus	-16049-06-07 18:00 J	-4140315.99	-4140315.75	-4140315.49	0.0135	0.0032

Uranus	-16048-06-11 17:31 J	-4139946.93	-4139946.77	-4139946.57	0.0135	0.0091
Saturn	-16047-12-04 06:00 J	-4139406.51	-4139406.25	-4139405.99	0.0260	0.0031
Jupiter	-16033-05-05 16:48 J	-4134504.99	-4134504.80	-4134504.60	0.0525	0.0301
Jupiter	-16021-05-10 14:52 J	-4130117.09	-4130116.88	-4130116.67	0.0526	0.0154
Neptune	-16019-11-14 04:33 J	-4129199.35	-4129199.31	-4129199.22	0.0088	0.0085
Neptune	-16018-11-16 21:07 J	-4128831.86	-4128831.62	-4128831.39	0.0088	0.0044
Saturn	-16018-11-29 13:26 J	-4128819.07	-4128818.94	-4128818.79	0.0260	0.0210
Neptune	-16017-11-18 07:55 J	-4128464.43	-4128464.17	-4128463.92	0.0088	0.0003
Neptune	-16016-11-20 18:43 J	-4128096.94	-4128096.72	-4128096.46	0.0088	0.0038
Neptune	-16015-11-23 10:33 J	-4127729.15	-4127729.06	-4127728.92	0.0088	0.0079
Pluto	-16012-03-17 15:50 J	-4126883.84	-4126883.84	-4126883.81	0.0077	0.0077
Uranus	-16012-11-23 12:14 J	-4126633.03	-4126632.99	-4126632.92	0.0145	0.0141
Uranus	-16011-11-28 18:00 J	-4126262.98	-4126262.75	-4126262.53	0.0144	0.0075
Uranus	-16010-12-03 18:14 J	-4125892.99	-4125892.74	-4125892.49	0.0144	0.0006
Uranus	-16009-12-08 01:11 J	-4125522.65	-4125522.45	-4125522.22	0.0144	0.0085
Mars	-16005-04-13 16:19 J	-4124299.96	-4124299.82	-4124299.67	0.1788	0.1054
Jupiter	-16004-10-30 17:16 J	-4123734.92	-4123734.78	-4123734.63	0.0501	0.0386
Saturn	-16003-06-06 04:48 J	-4123516.55	-4123516.30	-4123516.05	0.0302	0.0005

16TH MILLENNIUM BCE

This is a list of transits of Moon in the 16th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-15992-11-04 14:52 J	-4119347.12	-4119346.88	-4119346.65	0.0500	0.0072		

Saturn	-15988-12-05 09:50 J	-4117855.31	-4117855.09	-4117854.85	0.0261	0.0099
Mars	-15980-10-11 08:38 J	-4114988.31	-4114988.14	-4114987.97	0.1737	0.0913
Uranus	-15967-05-31 14:09 J	-4110373.12	-4110372.91	-4110372.70	0.0134	0.0077
Uranus	-15966-06-04 13:40 J	-4110004.17	-4110003.93	-4110003.69	0.0134	0.0030
Uranus	-15965-06-08 00:43 J	-4109634.71	-4109634.47	-4109634.22	0.0135	0.0036
Uranus	-15964-06-12 00:57 J	-4109265.62	-4109265.46	-4109265.27	0.0135	0.0095
Saturn	-15959-12-01 01:26 J	-4107267.65	-4107267.44	-4107267.23	0.0260	0.0141
Jupiter	-15950-05-05 17:45 J	-4104189.91	-4104189.76	-4104189.61	0.0525	0.0392
Saturn	-15944-06-07 16:33 J	-4101965.03	-4101964.81	-4101964.57	0.0302	0.0107
Jupiter	-15938-05-10 17:16 J	-4099802.02	-4099801.78	-4099801.55	0.0526	0.0057
Neptune	-15935-05-20 21:50 J	-4098695.79	-4098695.59	-4098695.39	0.0089	0.0053
Neptune	-15934-05-23 10:19 J	-4098328.32	-4098328.07	-4098327.80	0.0089	0.0015
Neptune	-15933-05-24 20:52 J	-4097960.85	-4097960.63	-4097960.38	0.0089	0.0029
Neptune	-15932-05-27 04:19 J	-4097593.47	-4097593.32	-4097593.12	0.0089	0.0066
Saturn	-15929-12-06 22:33 J	-4096303.73	-4096303.56	-4096303.37	0.0261	0.0175
Uranus	-15927-11-28 21:50 J	-4095581.82	-4095581.59	-4095581.34	0.0144	0.0064
Mars	-15926-04-17 04:33 J	-4095442.47	-4095442.31	-4095442.15	0.1783	0.0982
Uranus	-15926-12-04 00:00 J	-4095211.74	-4095211.50	-4095211.24	0.0144	0.0007
Uranus	-15925-12-08 06:14 J	-4094841.46	-4094841.24	-4094841.01	0.0144	0.0078
Jupiter	-15921-10-30 03:35 J	-4093419.45	-4093419.35	-4093419.25	0.0501	0.0451
Saturn	-15915-06-01 20:09 J	-4091378.75	-4091378.66	-4091378.55	0.0302	0.0270
Jupiter	-15909-11-03 07:11 J	-4089032.44	-4089032.20	-4089031.96	0.0500	0.0014
Saturn	-15900-12-02 10:19 J	-4085716.32	-4085716.07	-4085715.82	0.0261	0.0066
Jupiter	-15897-11-08 02:24 J	-4084644.53	-4084644.40	-4084644.28	0.0499	0.0415
Saturn	-15885-06-09 11:02 J	-4080413.19	-4080413.04	-4080412.87	0.0302	0.0221
Uranus	-15884-05-27 13:26 J	-4080060.97	-4080060.94	-4080060.88	0.0134	0.0131
Uranus	-15883-05-31 23:02 J	-4079691.72	-4079691.54	-4079691.33	0.0134	0.0086
Uranus	-15882-06-05 00:00 J	-4079322.74	-4079322.50	-4079322.26	0.0134	0.0016
Uranus	-15881-06-08 10:04 J	-4078953.33	-4078953.08	-4078952.83	0.0135	0.0036
Uranus	-15880-06-12 11:02 J	-4078584.20	-4078584.04	-4078583.86	0.0135	0.0097

Saturn	-15870-12-09 15:07 J	-4074751.92	-4074751.87	-4074751.81	0.0261	0.0254
Jupiter	-15867-05-04 15:50 J	-4073874.89	-4073874.84	-4073874.76	0.0525	0.0501
Saturn	-15856-06-03 19:26 J	-4069826.89	-4069826.69	-4069826.47	0.0302	0.0148
Jupiter	-15855-05-09 08:09 J	-4069487.39	-4069487.16	-4069486.93	0.0526	0.0051
Neptune	-15854-11-16 04:48 J	-4068931.44	-4068931.30	-4068931.12	0.0088	0.0068
Neptune	-15853-11-17 15:21 J	-4068564.11	-4068563.86	-4068563.58	0.0088	0.0020
Neptune	-15852-11-20 08:09 J	-4068196.41	-4068196.16	-4068195.91	0.0088	0.0012
Neptune	-15851-11-22 14:09 J	-4067829.08	-4067828.91	-4067828.71	0.0088	0.0062
Pluto	-15850-09-14 05:16 J	-4067533.53	-4067533.28	-4067533.01	0.0067	0.0005
Uranus	-15844-11-24 00:28 J	-4065270.54	-4065270.48	-4065270.38	0.0145	0.0136
Jupiter	-15843-05-14 12:00 J	-4065099.10	-4065099.00	-4065098.90	0.0527	0.0470
Uranus	-15843-11-29 03:21 J	-4064900.59	-4064900.36	-4064900.13	0.0144	0.0072
Uranus	-15842-12-04 06:57 J	-4064530.46	-4064530.21	-4064529.96	0.0144	0.0011
Saturn	-15841-12-03 18:00 J	-4064165.01	-4064164.75	-4064164.49	0.0261	0.0011
Uranus	-15841-12-08 11:16 J	-4064160.23	-4064160.03	-4064159.80	0.0144	0.0087
Jupiter	-15826-11-03 12:57 J	-4058717.19	-4058716.96	-4058716.73	0.0500	0.0097
Jupiter	-15814-11-07 21:35 J	-4054329.79	-4054329.60	-4054329.41	0.0500	0.0324
Saturn	-15812-11-29 08:24 J	-4053577.27	-4053577.15	-4053577.01	0.0260	0.0217
Uranus	-15799-06-01 07:26 J	-4049010.40	-4049010.19	-4049009.96	0.0134	0.0070
Uranus	-15798-06-05 09:07 J	-4048641.36	-4048641.12	-4048640.88	0.0134	0.0023
Saturn	-15797-06-05 14:24 J	-4048275.15	-4048274.90	-4048274.65	0.0302	0.0026
Uranus	-15797-06-08 18:14 J	-4048271.97	-4048271.74	-4048271.48	0.0135	0.0045
Uranus	-15796-06-12 20:38 J	-4047902.79	-4047902.64	-4047902.47	0.0135	0.0101
Saturn	-15782-12-06 03:50 J	-4042613.57	-4042613.34	-4042613.11	0.0261	0.0089
Mars	-15775-10-09 21:50 J	-4040113.73	-4040113.59	-4040113.45	0.1727	0.1103
Jupiter	-15772-05-08 12:14 J	-4039172.21	-4039171.99	-4039171.76	0.0525	0.0148
Neptune	-15771-05-20 09:35 J	-4038795.22	-4038795.10	-4038794.98	0.0089	0.0079
Neptune	-15770-05-22 21:35 J	-4038427.81	-4038427.60	-4038427.35	0.0089	0.0031
Neptune	-15769-05-24 05:31 J	-4038060.53	-4038060.27	-4038060.01	0.0089	0.0002
Neptune	-15768-05-26 21:21 J	-4037692.80	-4037692.61	-4037692.39	0.0089	0.0051

Neptune	-15767-05-29 01:11 J	-4037325.51	-4037325.45	-4037325.34	0.0089	0.0084
Pluto	-15763-03-20 06:14 J	-4035934.50	-4035934.24	-4035933.97	0.0077	0.0006
Jupiter	-15760-05-13 02:09 J	-4034784.58	-4034784.41	-4034784.24	0.0526	0.0364
Uranus	-15759-11-29 10:19 J	-4034219.30	-4034219.07	-4034218.81	0.0145	0.0057
Uranus	-15758-12-04 15:35 J	-4033849.09	-4033848.85	-4033848.60	0.0144	0.0011
Uranus	-15757-12-08 18:57 J	-4033478.92	-4033478.71	-4033478.49	0.0144	0.0085
Saturn	-15753-11-30 21:21 J	-4032025.82	-4032025.61	-4032025.40	0.0260	0.0140
Jupiter	-15743-11-02 08:52 J	-4028402.36	-4028402.13	-4028401.90	0.0501	0.0177
Saturn	-15738-06-08 08:52 J	-4026723.36	-4026723.13	-4026722.90	0.0302	0.0094
Jupiter	-15731-11-06 23:45 J	-4024014.70	-4024014.51	-4024014.31	0.0499	0.0242
Saturn	-15723-12-07 16:04 J	-4021062.01	-4021061.83	-4021061.64	0.0261	0.0165
Mars	-15721-04-14 07:55 J	-4020568.34	-4020568.17	-4020568.01	0.1795	0.1006
Uranus	-15716-05-28 10:19 J	-4018698.14	-4018698.07	-4018697.95	0.0134	0.0123
Uranus	-15715-06-01 18:14 J	-4018328.94	-4018328.74	-4018328.52	0.0134	0.0077
Uranus	-15714-06-05 21:07 J	-4017959.86	-4017959.62	-4017959.37	0.0134	0.0008
Uranus	-15713-06-09 05:16 J	-4017590.51	-4017590.28	-4017590.02	0.0135	0.0044
Uranus	-15712-06-13 08:24 J	-4017221.28	-4017221.15	-4017220.98	0.0135	0.0106
Saturn	-15709-06-01 15:21 J	-4016136.93	-4016136.86	-4016136.77	0.0303	0.0283
Mars	-15696-10-12 01:11 J	-4011256.59	-4011256.45	-4011256.30	0.1731	0.0983
Saturn	-15694-12-03 02:09 J	-4010474.66	-4010474.41	-4010474.16	0.0260	0.0071
Neptune	-15690-11-15 11:02 J	-4009031.10	-4009031.04	-4009030.98	0.0088	0.0086
Jupiter	-15689-05-07 02:24 J	-4008857.61	-4008857.40	-4008857.20	0.0525	0.0251
Neptune	-15689-11-17 04:19 J	-4008663.54	-4008663.32	-4008663.10	0.0088	0.0044
Neptune	-15688-11-19 10:04 J	-4008296.34	-4008296.08	-4008295.81	0.0088	0.0005
Neptune	-15687-11-22 05:31 J	-4007928.49	-4007928.27	-4007928.02	0.0088	0.0038
Neptune	-15686-11-24 11:16 J	-4007561.15	-4007561.03	-4007560.90	0.0088	0.0077
Saturn	-15679-06-10 04:33 J	-4005171.48	-4005171.31	-4005171.14	0.0302	0.0205
Jupiter	-15677-05-12 04:48 J	-4004469.49	-4004469.30	-4004469.11	0.0526	0.0266
Uranus	-15676-11-24 21:35 J	-4003907.71	-4003907.60	-4003907.46	0.0145	0.0125
Uranus	-15675-11-29 21:50 J	-4003537.82	-4003537.59	-4003537.34	0.0144	0.0063

Uranus	-15674-12-05 03:50 J	-4003167.58	-4003167.34	-4003167.09	0.0144	0.0022
Uranus	-15673-12-09 06:14 J	-4002797.45	-4002797.24	-4002797.04	0.0144	0.0094
Saturn	-15664-12-09 02:24 J	-3999510.50	-3999510.40	-3999510.28	0.0261	0.0232
Jupiter	-15660-11-01 13:55 J	-3998087.12	-3998086.92	-3998086.73	0.0500	0.0244
Saturn	-15650-06-04 05:31 J	-3994585.47	-3994585.27	-3994585.07	0.0303	0.0178
Jupiter	-15648-11-06 01:55 J	-3993699.65	-3993699.42	-3993699.18	0.0500	0.0151
Mars	-15642-04-17 22:04 J	-3991710.73	-3991710.58	-3991710.43	0.1790	0.1032
Saturn	-15635-12-04 02:38 J	-3988923.64	-3988923.39	-3988923.13	0.0260	0.0010
Uranus	-15632-05-28 21:07 J	-3988016.65	-3988016.62	-3988016.55	0.0134	0.0131
Uranus	-15631-06-02 03:35 J	-3987647.57	-3987647.35	-3987647.11	0.0134	0.0060
Uranus	-15630-06-06 07:40 J	-3987278.42	-3987278.18	-3987277.94	0.0134	0.0014
Uranus	-15629-06-09 15:07 J	-3986909.10	-3986908.87	-3986908.63	0.0135	0.0054
Uranus	-15628-06-13 19:40 J	-3986539.81	-3986539.68	-3986539.53	0.0135	0.0108
Jupiter	-15606-05-07 09:50 J	-3978542.26	-3978542.09	-3978541.91	0.0525	0.0333
Neptune	-15606-05-22 03:50 J	-3978527.54	-3978527.34	-3978527.12	0.0089	0.0052
Saturn	-15606-11-29 13:55 J	-3978335.95	-3978335.92	-3978335.87	0.0260	0.0255
Neptune	-15605-05-23 20:52 J	-3978159.87	-3978159.63	-3978159.38	0.0089	0.0016
Neptune	-15604-05-26 00:57 J	-3977792.69	-3977792.46	-3977792.21	0.0089	0.0028
Neptune	-15603-05-28 18:14 J	-3977424.90	-3977424.74	-3977424.54	0.0089	0.0065
Pluto	-15602-09-15 11:02 J	-3976950.20	-3976950.04	-3976949.83	0.0067	0.0047
Pluto	-15601-09-15 18:28 J	-3976583.81	-3976583.73	-3976583.59	0.0067	0.0061
Jupiter	-15594-05-12 05:16 J	-3974154.51	-3974154.28	-3974154.06	0.0526	0.0186
Uranus	-15592-11-25 11:31 J	-3973226.12	-3973226.02	-3973225.92	0.0145	0.0132
Saturn	-15591-06-05 11:02 J	-3973034.28	-3973034.04	-3973033.80	0.0303	0.0083
Uranus	-15591-11-30 10:33 J	-3972856.30	-3972856.06	-3972855.79	0.0144	0.0043
Uranus	-15590-12-05 17:45 J	-3972486.00	-3972485.76	-3972485.51	0.0144	0.0023
Uranus	-15589-12-09 18:57 J	-3972115.89	-3972115.71	-3972115.50	0.0144	0.0098
Jupiter	-15577-10-31 17:16 J	-3967771.97	-3967771.78	-3967771.59	0.0501	0.0316
Saturn	-15576-12-05 06:00 J	-3967372.49	-3967372.25	-3967372.01	0.0260	0.0051
Jupiter	-15565-11-05 03:07 J	-3963384.60	-3963384.37	-3963384.14	0.0501	0.0089

Jupiter	-15553-11-10 01:40 J	-3958996.50	-3958996.43	-3958996.33	0.0500	0.0465
Uranus	-15548-05-29 09:07 J	-3957335.23	-3957335.12	-3957334.97	0.0134	0.0113
Uranus	-15547-06-02 14:38 J	-3956966.10	-3956965.89	-3956965.66	0.0134	0.0068
Saturn	-15547-11-30 13:26 J	-3956785.10	-3956784.94	-3956784.77	0.0259	0.0197
Uranus	-15546-06-06 20:09 J	-3956596.91	-3956596.66	-3956596.42	0.0134	0.0003
Uranus	-15545-06-10 02:09 J	-3956227.65	-3956227.41	-3956227.16	0.0135	0.0051
Uranus	-15544-06-14 07:40 J	-3955858.31	-3955858.18	-3955858.05	0.0135	0.0114
Saturn	-15532-06-06 13:40 J	-3951483.17	-3951482.93	-3951482.69	0.0303	0.0005
Neptune	-15525-11-16 05:16 J	-3948763.42	-3948763.28	-3948763.10	0.0088	0.0070
Neptune	-15524-11-19 01:11 J	-3948395.71	-3948395.45	-3948395.20	0.0088	0.0020
Jupiter	-15523-05-06 15:50 J	-3948227.00	-3948226.84	-3948226.67	0.0524	0.0382
Neptune	-15523-11-21 06:57 J	-3948028.46	-3948028.21	-3948027.95	0.0088	0.0011
Neptune	-15522-11-24 00:00 J	-3947660.68	-3947660.50	-3947660.28	0.0088	0.0059
Saturn	-15517-12-06 09:07 J	-3945821.34	-3945821.12	-3945820.90	0.0260	0.0106
Pluto	-15515-03-21 05:45 J	-3945351.43	-3945351.26	-3945351.05	0.0077	0.0052
Jupiter	-15511-05-11 12:43 J	-3943839.18	-3943838.97	-3943838.75	0.0525	0.0126
Uranus	-15508-11-26 00:28 J	-3942544.63	-3942544.48	-3942544.30	0.0145	0.0111
Uranus	-15507-11-30 23:31 J	-3942174.76	-3942174.52	-3942174.26	0.0145	0.0049
Uranus	-15506-12-06 07:11 J	-3941804.43	-3941804.20	-3941803.94	0.0144	0.0036
Uranus	-15505-12-10 07:40 J	-3941434.35	-3941434.18	-3941433.99	0.0144	0.0106
Jupiter	-15494-10-31 22:48 J	-3937456.71	-3937456.55	-3937456.39	0.0501	0.0358
Mars	-15491-10-10 07:55 J	-3936382.33	-3936382.17	-3936382.00	0.1720	0.1019
Saturn	-15488-12-01 06:57 J	-3935234.42	-3935234.21	-3935234.00	0.0259	0.0147
Jupiter	-15482-11-05 21:07 J	-3933068.86	-3933068.62	-3933068.38	0.0500	0.0041
Saturn	-15473-06-07 16:48 J	-3929932.03	-3929931.80	-3929931.57	0.0303	0.0062
Jupiter	-15470-11-09 23:02 J	-3928681.68	-3928681.54	-3928681.39	0.0500	0.0395
Uranus	-15464-05-29 18:43 J	-3926653.79	-3926653.72	-3926653.59	0.0133	0.0122
Uranus	-15463-06-02 23:02 J	-3926284.77	-3926284.54	-3926284.29	0.0134	0.0051
Uranus	-15462-06-07 05:16 J	-3925915.52	-3925915.28	-3925915.03	0.0134	0.0007
Uranus	-15461-06-10 10:04 J	-3925546.30	-3925546.08	-3925545.84	0.0135	0.0062

Uranus	-15460-06-14 16:33 J	-3925176.92	-3925176.81	-3925176.66	0.0135	0.0114
Saturn	-15458-12-08 06:43 J	-3924270.42	-3924270.22	-3924270.01	0.0259	0.0156
Neptune	-15442-05-21 19:26 J	-3918626.78	-3918626.69	-3918626.56	0.0089	0.0080
Neptune	-15441-05-22 23:45 J	-3918259.73	-3918259.51	-3918259.26	0.0089	0.0032
Jupiter	-15440-05-06 00:14 J	-3917911.60	-3917911.49	-3917911.36	0.0524	0.0439
Neptune	-15440-05-25 17:45 J	-3917892.02	-3917891.76	-3917891.50	0.0089	0.0000
Neptune	-15439-05-27 23:02 J	-3917524.74	-3917524.54	-3917524.33	0.0089	0.0049
Neptune	-15438-05-30 12:57 J	-3917157.04	-3917156.96	-3917156.82	0.0089	0.0082
Mars	-15437-04-13 23:02 J	-3916837.68	-3916837.54	-3916837.39	0.1803	0.1261
Saturn	-15429-12-02 01:40 J	-3913683.65	-3913683.43	-3913683.20	0.0259	0.0099
Jupiter	-15428-05-10 23:45 J	-3913523.74	-3913523.51	-3913523.27	0.0525	0.0071
Uranus	-15424-11-26 10:04 J	-3911863.20	-3911863.08	-3911862.93	0.0145	0.0121
Uranus	-15423-12-01 08:38 J	-3911493.40	-3911493.14	-3911492.88	0.0145	0.0031
Uranus	-15422-12-06 17:45 J	-3911123.00	-3911122.76	-3911122.51	0.0144	0.0033
Uranus	-15421-12-10 17:16 J	-3910752.94	-3910752.78	-3910752.59	0.0144	0.0109
Saturn	-15414-06-09 14:38 J	-3908381.11	-3908380.89	-3908380.67	0.0303	0.0117
Mars	-15412-10-13 00:57 J	-3907524.60	-3907524.46	-3907524.32	0.1725	0.1197
Jupiter	-15411-10-31 12:14 J	-3907141.11	-3907140.99	-3907140.85	0.0501	0.0414
Jupiter	-15399-11-04 19:11 J	-3902753.93	-3902753.70	-3902753.46	0.0501	0.0026
Saturn	-15399-12-08 22:19 J	-3902719.73	-3902719.57	-3902719.41	0.0259	0.0205
Jupiter	-15387-11-09 17:31 J	-3898365.93	-3898365.77	-3898365.61	0.0500	0.0356
Saturn	-15385-06-01 19:11 J	-3897795.74	-3897795.70	-3897795.64	0.0304	0.0297
Uranus	-15380-05-30 06:43 J	-3895972.36	-3895972.22	-3895972.06	0.0133	0.0104
Uranus	-15379-06-03 09:35 J	-3895603.32	-3895603.10	-3895602.86	0.0134	0.0060
Uranus	-15378-06-07 17:02 J	-3895234.03	-3895233.79	-3895233.55	0.0134	0.0010
Uranus	-15377-06-10 20:09 J	-3894864.88	-3894864.66	-3894864.41	0.0134	0.0057
Uranus	-15376-06-15 03:21 J	-3894495.45	-3894495.36	-3894495.24	0.0135	0.0121
Saturn	-15370-12-04 01:11 J	-3892132.68	-3892132.45	-3892132.21	0.0259	0.0052
Neptune	-15360-11-18 01:40 J	-3888495.65	-3888495.43	-3888495.21	0.0088	0.0046
Neptune	-15359-11-20 18:28 J	-3888128.00	-3888127.73	-3888127.46	0.0088	0.0008

Mars	-15358-04-18 06:28 J	-3887979.41	-3887979.23	-3887979.05	0.1797	0.0859
Neptune	-15358-11-23 04:19 J	-3887760.53	-3887760.32	-3887760.07	0.0088	0.0035
Jupiter	-15357-05-05 15:21 J	-3887595.96	-3887595.86	-3887595.74	0.0524	0.0465
Neptune	-15357-11-24 16:19 J	-3887392.95	-3887392.82	-3887392.64	0.0088	0.0072
Saturn	-15355-06-10 04:48 J	-3886830.50	-3886830.30	-3886830.08	0.0303	0.0164
Pluto	-15353-09-16 21:07 J	-3886000.86	-3886000.62	-3886000.35	0.0067	0.0015
Jupiter	-15345-05-10 10:19 J	-3883208.30	-3883208.07	-3883207.84	0.0525	0.0046
Uranus	-15340-11-26 17:31 J	-3881181.94	-3881181.77	-3881181.58	0.0145	0.0103
Saturn	-15340-12-09 14:52 J	-3881168.92	-3881168.88	-3881168.81	0.0259	0.0253
Uranus	-15339-12-01 15:21 J	-3880812.10	-3880811.86	-3880811.60	0.0145	0.0043
Uranus	-15338-12-07 01:40 J	-3880441.67	-3880441.43	-3880441.19	0.0144	0.0044
Uranus	-15337-12-11 00:00 J	-3880071.66	-3880071.50	-3880071.33	0.0144	0.0111
Jupiter	-15333-05-15 14:09 J	-3878820.00	-3878819.91	-3878819.82	0.0525	0.0482
Jupiter	-15328-10-30 16:33 J	-3876825.90	-3876825.81	-3876825.70	0.0502	0.0453
Saturn	-15326-06-03 15:50 J	-3876244.96	-3876244.84	-3876244.71	0.0304	0.0253
Jupiter	-15316-11-04 15:35 J	-3872438.08	-3872437.85	-3872437.63	0.0501	0.0067
Saturn	-15311-12-05 00:43 J	-3870581.72	-3870581.47	-3870581.22	0.0259	0.0006
Jupiter	-15304-11-09 04:04 J	-3868050.52	-3868050.33	-3868050.14	0.0500	0.0318
Uranus	-15296-05-30 17:31 J	-3865290.89	-3865290.77	-3865290.62	0.0133	0.0112
Saturn	-15296-06-10 18:00 J	-3865279.92	-3865279.75	-3865279.57	0.0303	0.0208
Uranus	-15295-06-03 19:11 J	-3864921.94	-3864921.70	-3864921.45	0.0134	0.0043
Uranus	-15294-06-08 03:21 J	-3864552.60	-3864552.36	-3864552.11	0.0134	0.0003
Uranus	-15293-06-11 05:16 J	-3864183.48	-3864183.28	-3864183.04	0.0134	0.0070
Uranus	-15292-06-15 14:09 J	-3863814.01	-3863813.91	-3863813.79	0.0135	0.0119
Saturn	-15282-11-29 22:19 J	-3859994.62	-3859994.57	-3859994.50	0.0258	0.0251
Neptune	-15277-05-22 14:24 J	-3858359.09	-3858358.90	-3858358.69	0.0089	0.0056
Neptune	-15276-05-24 20:09 J	-3857991.89	-3857991.66	-3857991.41	0.0089	0.0020
Neptune	-15275-05-27 10:04 J	-3857624.32	-3857624.08	-3857623.82	0.0089	0.0025
Jupiter	-15274-05-05 22:04 J	-3857280.65	-3857280.58	-3857280.51	0.0524	0.0496
Neptune	-15274-05-29 20:38 J	-3857256.81	-3857256.64	-3857256.45	0.0089	0.0061

Saturn	-15267-06-04 13:11 J	-3854694.12	-3854693.95	-3854693.76	0.0304	0.0201
Pluto	-15266-03-23 22:04 J	-3854401.81	-3854401.58	-3854401.32	0.0077	0.0030
Jupiter	-15262-05-11 02:09 J	-3852892.63	-3852892.41	-3852892.18	0.0525	0.0012
Uranus	-15256-11-27 00:57 J	-3850500.59	-3850500.46	-3850500.28	0.0145	0.0114
Uranus	-15255-12-01 22:48 J	-3850130.80	-3850130.55	-3850130.29	0.0145	0.0024
Uranus	-15254-12-07 09:35 J	-3849760.34	-3849760.10	-3849759.85	0.0144	0.0038
Uranus	-15253-12-11 07:40 J	-3849390.33	-3849390.18	-3849390.02	0.0144	0.0115
Saturn	-15252-12-05 19:11 J	-3849030.95	-3849030.70	-3849030.44	0.0259	0.0047
Jupiter	-15250-05-15 15:35 J	-3848504.99	-3848504.85	-3848504.71	0.0525	0.0419
Jupiter	-15245-10-30 11:45 J	-3846510.05	-3846510.01	-3846509.96	0.0502	0.0491
Saturn	-15237-06-11 15:21 J	-3843728.97	-3843728.86	-3843728.74	0.0303	0.0261
Jupiter	-15233-11-03 19:11 J	-3842122.94	-3842122.70	-3842122.47	0.0501	0.0132
Saturn	-15223-11-30 23:16 J	-3838443.67	-3838443.53	-3838443.37	0.0258	0.0200
Jupiter	-15221-11-08 08:52 J	-3837735.33	-3837735.13	-3837734.94	0.0500	0.0258
Uranus	-15212-05-31 06:43 J	-3834609.37	-3834609.22	-3834609.03	0.0133	0.0095
Uranus	-15211-06-04 07:40 J	-3834240.41	-3834240.18	-3834239.93	0.0134	0.0050
Uranus	-15210-06-08 16:48 J	-3833871.04	-3833870.80	-3833870.56	0.0134	0.0020
Uranus	-15209-06-11 17:45 J	-3833501.97	-3833501.76	-3833501.52	0.0134	0.0065
Saturn	-15208-06-05 07:55 J	-3833143.39	-3833143.17	-3833142.95	0.0304	0.0144
Uranus	-15208-06-16 02:52 J	-3833132.42	-3833132.38	-3833132.30	0.0135	0.0130
Mars	-15207-10-10 15:35 J	-3832651.01	-3832650.85	-3832650.69	0.1714	0.0920
Neptune	-15196-11-17 11:45 J	-3828595.16	-3828595.01	-3828594.86	0.0088	0.0073
Neptune	-15195-11-19 22:33 J	-3828227.79	-3828227.56	-3828227.31	0.0088	0.0025
Neptune	-15194-11-22 09:07 J	-3827860.38	-3827860.12	-3827859.84	0.0088	0.0007
Neptune	-15193-11-24 00:57 J	-3827492.64	-3827492.46	-3827492.24	0.0088	0.0055
Saturn	-15193-12-06 14:09 J	-3827480.15	-3827479.91	-3827479.68	0.0259	0.0103
Neptune	-15192-11-26 07:40 J	-3827125.20	-3827125.18	-3827125.09	0.0088	0.0086
Jupiter	-15179-05-10 04:33 J	-3822577.55	-3822577.31	-3822577.08	0.0525	0.0062
Uranus	-15172-11-27 12:43 J	-3819819.16	-3819818.97	-3819818.77	0.0145	0.0093
Uranus	-15171-12-02 10:04 J	-3819449.33	-3819449.08	-3819448.82	0.0145	0.0034

Uranus	-15170-12-07 20:52 J	-3819078.85	-3819078.63	-3819078.38	0.0144	0.0054
Uranus	-15169-12-11 18:00 J	-3818708.89	-3818708.75	-3818708.59	0.0144	0.0118
Jupiter	-15167-05-15 08:52 J	-3818189.28	-3818189.13	-3818188.97	0.0526	0.0376
Saturn	-15164-12-02 03:35 J	-3816892.55	-3816892.35	-3816892.14	0.0259	0.0144
Mars	-15153-04-14 04:48 J	-3813106.40	-3813106.30	-3813106.20	0.1810	0.1475
Jupiter	-15150-11-04 03:21 J	-3811807.57	-3811807.36	-3811807.15	0.0501	0.0189
Saturn	-15149-06-06 05:31 J	-3811592.50	-3811592.27	-3811592.03	0.0304	0.0078
Jupiter	-15138-11-08 22:04 J	-3807419.80	-3807419.58	-3807419.36	0.0501	0.0213
Saturn	-15134-12-08 17:45 J	-3805928.94	-3805928.76	-3805928.57	0.0259	0.0166
Uranus	-15128-05-31 19:40 J	-3803927.84	-3803927.68	-3803927.52	0.0133	0.0100
Mars	-15128-10-13 06:14 J	-3803793.39	-3803793.24	-3803793.08	0.1718	0.1125
Uranus	-15127-06-04 19:11 J	-3803558.94	-3803558.70	-3803558.44	0.0134	0.0032
Uranus	-15126-06-09 05:02 J	-3803189.53	-3803189.29	-3803189.04	0.0134	0.0012
Uranus	-15125-06-12 05:16 J	-3802820.47	-3802820.28	-3802820.06	0.0134	0.0081
Uranus	-15124-06-16 15:35 J	-3802450.90	-3802450.85	-3802450.75	0.0135	0.0128
Neptune	-15113-05-21 18:14 J	-3798458.81	-3798458.74	-3798458.65	0.0089	0.0084
Neptune	-15112-05-24 06:57 J	-3798091.43	-3798091.21	-3798090.95	0.0089	0.0037
Neptune	-15111-05-26 18:14 J	-3797723.98	-3797723.74	-3797723.49	0.0089	0.0004
Neptune	-15110-05-29 01:40 J	-3797356.64	-3797356.43	-3797356.18	0.0089	0.0043
Neptune	-15109-05-30 17:45 J	-3796988.88	-3796988.76	-3796988.63	0.0089	0.0077
Pluto	-15105-09-17 18:00 J	-3795417.98	-3795417.75	-3795417.52	0.0067	0.0026
Saturn	-15105-12-03 05:45 J	-3795341.49	-3795341.26	-3795341.01	0.0259	0.0083
Jupiter	-15096-05-09 15:35 J	-3792262.07	-3792261.85	-3792261.63	0.0525	0.0130
Saturn	-15090-06-08 13:11 J	-3790041.19	-3790040.95	-3790040.71	0.0304	0.0005
Uranus	-15088-11-28 02:38 J	-3789137.56	-3789137.39	-3789137.19	0.0145	0.0100
Uranus	-15087-12-03 00:00 J	-3788767.76	-3788767.50	-3788767.24	0.0145	0.0011
Uranus	-15086-12-08 11:16 J	-3788397.27	-3788397.03	-3788396.79	0.0144	0.0049
Uranus	-15085-12-12 07:55 J	-3788027.28	-3788027.17	-3788027.04	0.0144	0.0127
Jupiter	-15084-05-14 09:50 J	-3787874.29	-3787874.09	-3787873.88	0.0525	0.0287
Saturn	-15075-12-10 02:52 J	-3784377.47	-3784377.38	-3784377.27	0.0259	0.0236

Mars	-15074-04-17 21:21 J	-3784248.81	-3784248.61	-3784248.42	0.1806	0.0305
Jupiter	-15067-11-03 13:40 J	-3781492.14	-3781491.93	-3781491.72	0.0501	0.0248
Jupiter	-15055-11-07 18:43 J	-3777104.94	-3777104.72	-3777104.50	0.0500	0.0143
Saturn	-15046-12-05 07:40 J	-3773790.44	-3773790.18	-3773789.92	0.0259	0.0015
Uranus	-15044-06-01 09:50 J	-3773246.27	-3773246.09	-3773245.88	0.0133	0.0083
Uranus	-15043-06-05 09:07 J	-3772877.36	-3772877.12	-3772876.87	0.0134	0.0039
Uranus	-15042-06-09 19:26 J	-3772507.92	-3772507.69	-3772507.44	0.0134	0.0031
Uranus	-15041-06-12 18:57 J	-3772138.91	-3772138.71	-3772138.48	0.0134	0.0075
Saturn	-15031-06-10 06:28 J	-3768489.45	-3768489.23	-3768489.01	0.0303	0.0102
Neptune	-15031-11-19 01:40 J	-3768327.64	-3768327.43	-3768327.20	0.0088	0.0049
Neptune	-15030-11-21 18:43 J	-3767959.96	-3767959.72	-3767959.46	0.0088	0.0015
Neptune	-15029-11-23 00:43 J	-3767592.71	-3767592.47	-3767592.21	0.0088	0.0030
Neptune	-15028-11-25 19:26 J	-3767224.83	-3767224.69	-3767224.48	0.0088	0.0067
Pluto	-15018-03-24 12:00 J	-3763819.24	-3763819.00	-3763818.76	0.0077	0.0027
Saturn	-15017-11-29 20:24 J	-3763202.68	-3763202.65	-3763202.61	0.0259	0.0255
Jupiter	-15013-05-08 11:16 J	-3761947.25	-3761947.03	-3761946.82	0.0524	0.0230
Uranus	-15004-11-28 18:43 J	-3758455.93	-3758455.72	-3758455.49	0.0145	0.0077
Uranus	-15003-12-03 16:19 J	-3758086.07	-3758085.82	-3758085.56	0.0145	0.0018
Saturn	-15002-06-03 23:16 J	-3757903.60	-3757903.53	-3757903.43	0.0303	0.0285
Uranus	-15002-12-09 03:35 J	-3757715.58	-3757715.35	-3757715.12	0.0144	0.0068
Jupiter	-15001-05-13 07:40 J	-3757559.38	-3757559.18	-3757558.97	0.0525	0.0190
Uranus	-15001-12-12 23:16 J	-3757345.61	-3757345.53	-3757345.41	0.0144	0.0132

15TH MILLENNIUM BCE

This is a list of transits of Moon in the 15th millennium BCE.

	FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT								
	TIME								
Saturn	-14987-12-06	14:09	J	-3752239.15	-3752238.91	-3752238.67	0.0260	0.0057	
Jupiter	-14984-11-02	07:55	J	-3751177.34	-3751177.17	-3751176.99	0.0501	0.0331	
Saturn	-14972-06-12	03:35	J	-3746937.51	-3746937.35	-3746937.17	0.0303	0.0213	
Jupiter	-14972-11-07	02:52	J	-3746789.61	-3746789.38	-3746789.15	0.0501	0.0072	
Uranus	-14960-06-01	22:33	J	-3742564.74	-3742564.56	-3742564.37	0.0133	0.0088	
Uranus	-14959-06-05	20:52	J	-3742195.87	-3742195.63	-3742195.37	0.0134	0.0021	
Uranus	-14958-06-10	07:55	J	-3741826.41	-3741826.17	-3741825.92	0.0134	0.0022	
Saturn	-14958-12-02	08:52	J	-3741651.30	-3741651.13	-3741650.94	0.0259	0.0181	
Uranus	-14957-06-13	07:11	J	-3741457.39	-3741457.20	-3741457.02	0.0134	0.0091	
Neptune	-14948-05-23	14:24	J	-3738191.08	-3738190.90	-3738190.72	0.0089	0.0061	
Neptune	-14947-05-25	21:21	J	-3737823.84	-3737823.61	-3737823.34	0.0089	0.0028	
Neptune	-14946-05-28	14:09	J	-3737456.15	-3737455.91	-3737455.66	0.0089	0.0020	
Neptune	-14945-05-29	18:14	J	-3737088.93	-3737088.74	-3737088.53	0.0089	0.0054	
Saturn	-14943-06-05	19:40	J	-3736351.87	-3736351.68	-3736351.48	0.0303	0.0167	
Jupiter	-14930-05-08	09:07	J	-3731632.28	-3731632.12	-3731631.94	0.0525	0.0333	
Saturn	-14928-12-08	03:21	J	-3730687.56	-3730687.36	-3730687.15	0.0260	0.0137	
Mars	-14923-10-11	19:26	J	-3728918.86	-3728918.69	-3728918.52	0.1708	0.0565	
Uranus	-14920-11-29	08:09	J	-3727774.35	-3727774.16	-3727773.93	0.0145	0.0085	
Uranus	-14919-12-04	06:14	J	-3727404.50	-3727404.24	-3727403.99	0.0145	0.0004	
Jupiter	-14918-05-13	10:48	J	-3727244.29	-3727244.05	-3727243.82	0.0525	0.0086	
Uranus	-14918-12-09	17:16	J	-3727034.00	-3727033.78	-3727033.54	0.0145	0.0063	
Uranus	-14917-12-13	13:40	J	-3726663.96	-3726663.93	-3726663.87	0.0144	0.0141	
Jupiter	-14901-11-01	14:09	J	-3720862.04	-3720861.91	-3720861.78	0.0502	0.0419	
Saturn	-14899-12-03	17:02	J	-3720100.02	-3720099.79	-3720099.54	0.0259	0.0101	
Jupiter	-14889-11-05	20:38	J	-3716474.87	-3716474.64	-3716474.40	0.0501	0.0011	
Saturn	-14884-06-07	22:04	J	-3714799.81	-3714799.58	-3714799.34	0.0303	0.0038	
Uranus	-14877-05-29	00:57	J	-3712252.46	-3712252.46	-3712252.44	0.0133	0.0133	

Jupiter	-14877-11-10 14:52 J	-3712086.99	-3712086.88	-3712086.77	0.0500	0.0437
Uranus	-14876-06-02 12:00 J	-3711883.20	-3711883.00	-3711882.78	0.0133	0.0071
Uranus	-14875-06-06 10:04 J	-3711514.33	-3711514.08	-3711513.83	0.0134	0.0028
Uranus	-14874-06-10 21:21 J	-3711144.85	-3711144.61	-3711144.38	0.0134	0.0041
Uranus	-14873-06-13 19:40 J	-3710775.87	-3710775.68	-3710775.48	0.0134	0.0084
Mars	-14869-04-14 17:45 J	-3709374.87	-3709374.76	-3709374.65	0.1817	0.1487
Saturn	-14869-12-09 18:43 J	-3709135.84	-3709135.72	-3709135.57	0.0260	0.0218
Neptune	-14867-11-18 11:16 J	-3708427.14	-3708427.03	-3708426.92	0.0088	0.0079
Neptune	-14866-11-20 16:33 J	-3708060.04	-3708059.81	-3708059.55	0.0088	0.0032
Neptune	-14865-11-22 12:14 J	-3707692.25	-3707691.99	-3707691.72	0.0088	0.0001
Neptune	-14864-11-24 17:31 J	-3707324.96	-3707324.77	-3707324.53	0.0088	0.0048
Neptune	-14863-11-27 11:45 J	-3706957.12	-3706957.01	-3706956.89	0.0088	0.0080
Pluto	-14856-09-20 08:52 J	-3704468.32	-3704468.13	-3704467.90	0.0067	0.0037
Jupiter	-14847-05-07 10:48 J	-3701317.17	-3701317.05	-3701316.91	0.0524	0.0434
Mars	-14844-10-13 21:07 J	-3700061.75	-3700061.62	-3700061.49	0.1712	0.1181
Saturn	-14840-12-04 23:45 J	-3698548.76	-3698548.51	-3698548.25	0.0259	0.0020
Uranus	-14836-11-29 18:57 J	-3697092.93	-3697092.71	-3697092.46	0.0145	0.0066
Jupiter	-14835-05-11 22:48 J	-3696929.78	-3696929.55	-3696929.32	0.0525	0.0027
Uranus	-14835-12-04 18:00 J	-3696723.00	-3696722.75	-3696722.50	0.0145	0.0006
Uranus	-14834-12-10 05:02 J	-3696352.50	-3696352.29	-3696352.07	0.0145	0.0080
Uranus	-14833-12-14 01:26 J	-3695982.47	-3695982.44	-3695982.40	0.0144	0.0142
Saturn	-14825-06-10 00:14 J	-3693247.71	-3693247.49	-3693247.26	0.0303	0.0088
Jupiter	-14823-05-17 02:38 J	-3692541.51	-3692541.39	-3692541.26	0.0526	0.0442
Jupiter	-14818-11-01 08:09 J	-3690547.17	-3690547.16	-3690547.14	0.0501	0.0500
Jupiter	-14806-11-06 02:52 J	-3686159.61	-3686159.38	-3686159.15	0.0501	0.0080
Saturn	-14796-06-03 18:00 J	-3682661.81	-3682661.75	-3682661.67	0.0304	0.0290
Jupiter	-14794-11-10 09:07 J	-3681772.29	-3681772.12	-3681771.93	0.0500	0.0343
Uranus	-14793-05-29 13:26 J	-3681571.01	-3681570.94	-3681570.82	0.0133	0.0123
Uranus	-14792-06-03 00:28 J	-3681201.67	-3681201.48	-3681201.27	0.0133	0.0077
Uranus	-14791-06-06 21:50 J	-3680832.84	-3680832.59	-3680832.33	0.0133	0.0010

Mars	-14790-04-18 09:50 J	-3680517.27	-3680517.09	-3680516.91	0.1812	0.0261
Uranus	-14790-06-11 09:21 J	-3680463.35	-3680463.11	-3680462.87	0.0134	0.0032
Uranus	-14789-06-14 06:57 J	-3680094.35	-3680094.21	-3680094.02	0.0134	0.0101
Neptune	-14784-05-22 16:04 J	-3678290.83	-3678290.83	-3678290.82	0.0089	0.0089
Neptune	-14783-05-25 08:52 J	-3677923.34	-3677923.13	-3677922.90	0.0089	0.0044
Neptune	-14782-05-27 13:11 J	-3677556.20	-3677555.95	-3677555.69	0.0089	0.0010
Neptune	-14781-05-29 06:28 J	-3677188.45	-3677188.23	-3677187.98	0.0089	0.0036
Saturn	-14781-12-06 10:04 J	-3676997.32	-3676997.08	-3676996.84	0.0259	0.0058
Neptune	-14780-05-31 11:31 J	-3676821.16	-3676821.02	-3676820.85	0.0089	0.0069
Pluto	-14769-03-26 08:09 J	-3672869.31	-3672869.16	-3672868.98	0.0077	0.0059
Saturn	-14766-06-12 22:33 J	-3671695.73	-3671695.56	-3671695.38	0.0303	0.0210
Uranus	-14753-11-24 17:02 J	-3666781.83	-3666781.79	-3666781.71	0.0146	0.0141
Jupiter	-14752-05-11 04:04 J	-3666614.55	-3666614.33	-3666614.10	0.0525	0.0126
Uranus	-14752-11-30 02:24 J	-3666411.62	-3666411.40	-3666411.16	0.0146	0.0075
Saturn	-14752-12-02 00:28 J	-3666409.64	-3666409.48	-3666409.29	0.0259	0.0189
Uranus	-14751-12-05 01:55 J	-3666041.67	-3666041.42	-3666041.17	0.0145	0.0012
Uranus	-14750-12-10 12:28 J	-3665671.20	-3665670.98	-3665670.74	0.0145	0.0071
Jupiter	-14740-05-15 19:11 J	-3662226.87	-3662226.70	-3662226.52	0.0525	0.0348
Saturn	-14737-06-05 11:45 J	-3661110.20	-3661110.01	-3661109.82	0.0304	0.0179
Jupiter	-14723-11-04 21:50 J	-3655844.82	-3655844.59	-3655844.36	0.0501	0.0169
Saturn	-14722-12-08 21:07 J	-3655445.83	-3655445.62	-3655445.41	0.0259	0.0132
Jupiter	-14711-11-09 13:26 J	-3651457.13	-3651456.94	-3651456.75	0.0501	0.0274
Uranus	-14709-05-30 03:35 J	-3650889.45	-3650889.35	-3650889.24	0.0133	0.0120
Uranus	-14708-06-03 14:52 J	-3650520.10	-3650519.88	-3650519.65	0.0133	0.0059
Uranus	-14707-06-07 12:14 J	-3650151.23	-3650150.99	-3650150.73	0.0133	0.0016
Uranus	-14706-06-11 23:45 J	-3649781.73	-3649781.51	-3649781.27	0.0134	0.0053
Uranus	-14705-06-14 21:35 J	-3649412.76	-3649412.60	-3649412.40	0.0134	0.0094
Neptune	-14702-11-20 04:04 J	-3648159.53	-3648159.33	-3648159.12	0.0088	0.0056
Neptune	-14701-11-21 10:04 J	-3647792.31	-3647792.08	-3647791.82	0.0088	0.0023
Neptune	-14700-11-24 02:24 J	-3647424.65	-3647424.40	-3647424.13	0.0088	0.0023

Neptune	-14699-11-26 12:00 J	-3647057.17	-3647057.00	-3647056.79	0.0088	0.0057
Saturn	-14693-12-03 02:38 J	-3644858.62	-3644858.39	-3644858.16	0.0259	0.0119
Saturn	-14678-06-08 04:48 J	-3639558.52	-3639558.30	-3639558.07	0.0304	0.0080
Jupiter	-14669-05-10 01:55 J	-3636299.63	-3636299.42	-3636299.19	0.0524	0.0198
Uranus	-14669-11-25 04:04 J	-3636100.40	-3636100.33	-3636100.24	0.0146	0.0138
Uranus	-14668-11-30 12:28 J	-3635730.21	-3635729.98	-3635729.73	0.0146	0.0057
Uranus	-14667-12-05 13:11 J	-3635360.20	-3635359.95	-3635359.70	0.0145	0.0003
Uranus	-14666-12-10 23:31 J	-3634989.73	-3634989.52	-3634989.31	0.0145	0.0088
Saturn	-14663-12-10 03:21 J	-3633894.51	-3633894.36	-3633894.19	0.0259	0.0198
Jupiter	-14657-05-15 02:52 J	-3631911.57	-3631911.38	-3631911.19	0.0525	0.0280
Jupiter	-14640-11-04 06:28 J	-3625529.43	-3625529.23	-3625529.02	0.0502	0.0220
Mars	-14639-10-12 14:38 J	-3625187.09	-3625186.89	-3625186.69	0.1703	0.0320
Saturn	-14634-12-05 01:26 J	-3623307.68	-3623307.44	-3623307.19	0.0259	0.0057
Jupiter	-14628-11-08 23:02 J	-3621141.75	-3621141.54	-3621141.31	0.0501	0.0219
Uranus	-14625-05-30 17:45 J	-3620207.87	-3620207.76	-3620207.59	0.0133	0.0110
Uranus	-14624-06-04 05:02 J	-3619838.49	-3619838.29	-3619838.05	0.0133	0.0063
Uranus	-14623-06-08 02:38 J	-3619469.64	-3619469.39	-3619469.14	0.0133	0.0003
Uranus	-14622-06-12 14:09 J	-3619100.14	-3619099.91	-3619099.67	0.0134	0.0045
Uranus	-14621-06-15 12:00 J	-3618731.12	-3618731.00	-3618730.85	0.0134	0.0113
Neptune	-14619-05-24 06:57 J	-3618023.35	-3618023.21	-3618023.03	0.0089	0.0069
Saturn	-14619-06-09 13:26 J	-3618007.18	-3618006.94	-3618006.70	0.0304	0.0003
Neptune	-14618-05-27 00:43 J	-3617655.69	-3617655.47	-3617655.22	0.0089	0.0036
Neptune	-14617-05-28 06:57 J	-3617288.45	-3617288.21	-3617287.96	0.0089	0.0012
Neptune	-14616-05-30 20:52 J	-3616920.85	-3616920.63	-3616920.39	0.0089	0.0045
Pluto	-14608-09-21 04:33 J	-3613885.57	-3613885.31	-3613885.05	0.0067	0.0001
Saturn	-14604-12-11 01:26 J	-3612343.45	-3612343.44	-3612343.43	0.0259	0.0258
Jupiter	-14586-05-10 11:31 J	-3605984.21	-3605984.02	-3605983.82	0.0524	0.0271
Uranus	-14585-11-25 16:33 J	-3605418.90	-3605418.81	-3605418.67	0.0146	0.0130
Uranus	-14584-12-01 00:14 J	-3605048.73	-3605048.49	-3605048.25	0.0146	0.0062
Uranus	-14583-12-06 01:26 J	-3604678.68	-3604678.44	-3604678.19	0.0145	0.0024

Uranus	-14582-12-11 11:02 J	-3604308.26	-3604308.04	-3604307.82	0.0145	0.0081
Saturn	-14575-12-06 03:07 J	-3601756.61	-3601756.37	-3601756.13	0.0258	0.0004
Jupiter	-14574-05-15 06:00 J	-3601596.46	-3601596.25	-3601596.02	0.0525	0.0214
Saturn	-14560-06-10 10:48 J	-3596456.28	-3596456.05	-3596455.80	0.0304	0.0070
Mars	-14560-10-15 00:28 J	-3596329.56	-3596329.48	-3596329.39	0.1706	0.1481
Jupiter	-14557-11-03 12:43 J	-3595214.17	-3595213.97	-3595213.77	0.0502	0.0278
Saturn	-14546-12-01 12:00 J	-3591169.07	-3591169.00	-3591168.90	0.0258	0.0242
Jupiter	-14545-11-07 21:35 J	-3590826.82	-3590826.60	-3590826.38	0.0501	0.0150
Uranus	-14541-05-31 09:21 J	-3589526.25	-3589526.11	-3589525.95	0.0133	0.0106
Uranus	-14540-06-04 20:38 J	-3589156.87	-3589156.64	-3589156.39	0.0133	0.0046
Uranus	-14539-06-08 18:28 J	-3588787.98	-3588787.73	-3588787.48	0.0133	0.0003
Uranus	-14538-06-13 06:28 J	-3588418.45	-3588418.23	-3588418.02	0.0134	0.0066
Neptune	-14538-11-19 01:55 J	-3588259.46	-3588259.42	-3588259.33	0.0088	0.0086
Uranus	-14537-06-16 04:19 J	-3588049.45	-3588049.32	-3588049.16	0.0134	0.0107
Neptune	-14537-11-20 17:16 J	-3587892.00	-3587891.78	-3587891.53	0.0088	0.0040
Neptune	-14536-11-23 05:02 J	-3587524.54	-3587524.29	-3587524.04	0.0088	0.0006
Neptune	-14535-11-25 15:21 J	-3587157.08	-3587156.86	-3587156.60	0.0088	0.0039
Neptune	-14534-11-28 06:57 J	-3586789.32	-3586789.21	-3586789.03	0.0088	0.0074
Pluto	-14521-03-27 00:28 J	-3582286.74	-3582286.48	-3582286.21	0.0077	0.0007
Saturn	-14516-12-07 04:04 J	-3580205.57	-3580205.33	-3580205.09	0.0258	0.0057
Mars	-14506-04-18 14:52 J	-3576786.09	-3576785.88	-3576785.67	0.1820	0.0009
Jupiter	-14503-05-09 20:09 J	-3575668.85	-3575668.66	-3575668.47	0.0524	0.0318
Saturn	-14501-06-11 02:38 J	-3574905.60	-3574905.39	-3574905.16	0.0304	0.0124
Uranus	-14501-11-26 10:33 J	-3574737.20	-3574737.06	-3574736.93	0.0146	0.0121
Uranus	-14500-12-01 17:02 J	-3574367.04	-3574366.79	-3574366.53	0.0146	0.0042
Uranus	-14499-12-06 19:11 J	-3573996.94	-3573996.70	-3573996.45	0.0145	0.0018
Uranus	-14498-12-12 04:04 J	-3573626.50	-3573626.33	-3573626.13	0.0145	0.0103
Jupiter	-14491-05-14 19:26 J	-3571280.90	-3571280.69	-3571280.48	0.0525	0.0190
Saturn	-14487-12-02 03:21 J	-3569618.53	-3569618.36	-3569618.19	0.0258	0.0191
Jupiter	-14474-11-03 18:57 J	-3564898.89	-3564898.71	-3564898.53	0.0502	0.0310

Saturn	-14472-06-04 18:43 J	-3564319.77	-3564319.72	-3564319.65	0.0305	0.0295
Jupiter	-14462-11-08 18:28 J	-3560510.95	-3560510.73	-3560510.50	0.0501	0.0119
Uranus	-14457-06-01 01:40 J	-3558844.60	-3558844.43	-3558844.25	0.0133	0.0094
Saturn	-14457-12-07 21:35 J	-3558654.82	-3558654.60	-3558654.36	0.0258	0.0108
Uranus	-14456-06-05 12:14 J	-3558475.21	-3558474.99	-3558474.74	0.0133	0.0049
Uranus	-14455-06-09 10:19 J	-3558106.32	-3558106.07	-3558105.83	0.0133	0.0018
Neptune	-14454-05-25 23:31 J	-3557755.69	-3557755.52	-3557755.30	0.0089	0.0056
Uranus	-14454-06-13 21:35 J	-3557736.82	-3557736.60	-3557736.36	0.0134	0.0059
Neptune	-14453-05-27 13:11 J	-3557388.21	-3557387.95	-3557387.69	0.0089	0.0019
Uranus	-14453-06-16 19:55 J	-3557367.74	-3557367.67	-3557367.58	0.0134	0.0127
Neptune	-14452-05-30 00:43 J	-3557020.70	-3557020.47	-3557020.23	0.0089	0.0024
Neptune	-14451-06-01 08:38 J	-3556653.31	-3556653.14	-3556652.93	0.0089	0.0060
Jupiter	-14450-11-13 02:09 J	-3556123.45	-3556123.41	-3556123.35	0.0501	0.0488
Saturn	-14442-06-12 20:38 J	-3553354.83	-3553354.64	-3553354.45	0.0304	0.0175
Mars	-14434-10-10 16:19 J	-3550312.89	-3550312.82	-3550312.74	0.1693	0.1538
Saturn	-14428-12-02 22:19 J	-3548067.76	-3548067.57	-3548067.36	0.0258	0.0145
Jupiter	-14420-05-09 07:55 J	-3545353.34	-3545353.17	-3545353.01	0.0523	0.0354
Uranus	-14417-11-27 02:24 J	-3544055.54	-3544055.40	-3544055.23	0.0146	0.0112
Uranus	-14416-12-02 08:24 J	-3543685.40	-3543685.15	-3543684.89	0.0146	0.0044
Uranus	-14415-12-07 11:16 J	-3543315.27	-3543315.03	-3543314.79	0.0145	0.0041
Uranus	-14414-12-12 18:57 J	-3542944.89	-3542944.71	-3542944.50	0.0145	0.0098
Saturn	-14413-06-05 09:21 J	-3542769.25	-3542769.11	-3542768.96	0.0305	0.0247
Jupiter	-14408-05-14 09:21 J	-3540965.33	-3540965.11	-3540964.88	0.0524	0.0146
Saturn	-14398-12-09 11:16 J	-3537104.22	-3537104.03	-3537103.82	0.0258	0.0159
Jupiter	-14391-11-03 16:19 J	-3534583.00	-3534582.82	-3534582.64	0.0502	0.0327
Saturn	-14383-06-13 17:45 J	-3531803.92	-3531803.76	-3531803.60	0.0304	0.0223
Jupiter	-14379-11-07 18:43 J	-3530195.95	-3530195.72	-3530195.48	0.0501	0.0065
Uranus	-14373-06-01 16:33 J	-3528162.98	-3528162.81	-3528162.62	0.0133	0.0091
Neptune	-14373-11-19 21:35 J	-3527991.77	-3527991.60	-3527991.42	0.0088	0.0062
Uranus	-14372-06-06 03:21 J	-3527793.60	-3527793.36	-3527793.11	0.0133	0.0031

Neptune	-14372-11-22 06:14 J	-3527624.48	-3527624.24	-3527623.97	0.0088	0.0032
Uranus	-14371-06-10 01:40 J	-3527424.67	-3527424.43	-3527424.18	0.0133	0.0012
Neptune	-14371-11-24 23:31 J	-3527256.78	-3527256.52	-3527256.27	0.0088	0.0016
Uranus	-14370-06-14 12:43 J	-3527055.16	-3527054.97	-3527054.75	0.0134	0.0080
Neptune	-14370-11-27 04:48 J	-3526889.51	-3526889.30	-3526889.06	0.0088	0.0047
Uranus	-14369-06-17 11:02 J	-3526686.13	-3526686.04	-3526685.91	0.0134	0.0120
Saturn	-14369-12-03 21:35 J	-3526516.83	-3526516.60	-3526516.38	0.0258	0.0096
Jupiter	-14367-11-12 15:21 J	-3525807.98	-3525807.86	-3525807.75	0.0501	0.0430
Pluto	-14360-09-22 09:21 J	-3523302.29	-3523302.11	-3523301.89	0.0067	0.0042
Pluto	-14359-09-23 16:48 J	-3522935.83	-3522935.80	-3522935.73	0.0067	0.0066
Mars	-14355-10-12 21:07 J	-3521455.81	-3521455.62	-3521455.42	0.1696	0.0137
Saturn	-14354-06-06 21:21 J	-3521218.79	-3521218.61	-3521218.43	0.0305	0.0201
Saturn	-14339-12-10 06:28 J	-3515553.36	-3515553.23	-3515553.08	0.0258	0.0208
Jupiter	-14337-05-08 21:07 J	-3515037.77	-3515037.62	-3515037.46	0.0523	0.0400
Uranus	-14333-11-27 18:14 J	-3513373.90	-3513373.74	-3513373.55	0.0146	0.0104
Uranus	-14332-12-02 23:45 J	-3513003.77	-3513003.51	-3513003.25	0.0146	0.0026
Uranus	-14331-12-08 03:50 J	-3512633.58	-3512633.34	-3512633.10	0.0145	0.0034
Uranus	-14330-12-13 11:16 J	-3512263.17	-3512263.03	-3512262.86	0.0145	0.0118
Jupiter	-14325-05-13 14:52 J	-3510650.10	-3510649.88	-3510649.65	0.0524	0.0107
Saturn	-14324-06-14 12:00 J	-3510253.09	-3510253.00	-3510252.88	0.0304	0.0273
Saturn	-14310-12-05 19:26 J	-3504965.94	-3504965.69	-3504965.44	0.0258	0.0047
Jupiter	-14308-11-02 15:21 J	-3504268.00	-3504267.86	-3504267.70	0.0502	0.0381
Jupiter	-14296-11-07 12:14 J	-3499880.21	-3499879.99	-3499879.76	0.0502	0.0023
Saturn	-14295-06-07 17:02 J	-3499667.99	-3499667.79	-3499667.58	0.0305	0.0145
Neptune	-14290-05-25 05:02 J	-3497855.39	-3497855.29	-3497855.13	0.0089	0.0078
Neptune	-14289-05-26 18:00 J	-3497487.94	-3497487.75	-3497487.52	0.0089	0.0047
Uranus	-14289-06-02 07:26 J	-3497481.37	-3497481.19	-3497480.98	0.0133	0.0081
Neptune	-14288-05-29 01:26 J	-3497120.70	-3497120.44	-3497120.17	0.0089	0.0002
Uranus	-14288-06-06 17:45 J	-3497112.00	-3497111.76	-3497111.51	0.0133	0.0034
Neptune	-14287-05-31 18:00 J	-3496752.98	-3496752.75	-3496752.51	0.0089	0.0033

Uranus	-14287-06-10 16:04 J	-3496743.07	-3496742.83	-3496742.59	0.0133	0.0031
Neptune	-14286-06-02 22:33 J	-3496385.66	-3496385.56	-3496385.46	0.0089	0.0082
Uranus	-14286-06-15 02:24 J	-3496373.61	-3496373.40	-3496373.18	0.0134	0.0071
Jupiter	-14284-11-12 01:11 J	-3495492.60	-3495492.45	-3495492.29	0.0501	0.0385
Mars	-14276-10-15 12:28 J	-3492598.08	-3492597.98	-3492597.89	0.1700	0.1494
Pluto	-14273-03-27 23:02 J	-3491703.71	-3491703.54	-3491703.34	0.0077	0.0053
Jupiter	-14254-05-09 03:21 J	-3484722.48	-3484722.36	-3484722.23	0.0524	0.0435
Saturn	-14251-12-06 14:09 J	-3483415.17	-3483414.91	-3483414.65	0.0258	0.0010
Uranus	-14249-11-28 04:04 J	-3482692.50	-3482692.33	-3482692.14	0.0146	0.0099
Uranus	-14248-12-03 07:55 J	-3482322.43	-3482322.17	-3482321.90	0.0146	0.0031
Uranus	-14247-12-08 13:11 J	-3481952.17	-3481951.95	-3481951.71	0.0145	0.0053
Uranus	-14246-12-13 19:26 J	-3481581.85	-3481581.69	-3481581.50	0.0145	0.0109
Jupiter	-14242-05-14 07:55 J	-3480334.39	-3480334.17	-3480333.94	0.0524	0.0073
Saturn	-14236-06-08 21:07 J	-3478116.85	-3478116.62	-3478116.39	0.0305	0.0077
Jupiter	-14230-05-18 23:02 J	-3475946.58	-3475946.54	-3475946.48	0.0525	0.0513
Jupiter	-14225-11-02 07:40 J	-3473952.29	-3473952.18	-3473952.05	0.0502	0.0422
Mars	-14222-04-17 23:02 J	-3473055.73	-3473055.54	-3473055.35	0.1828	0.0622
Saturn	-14222-12-01 21:50 J	-3472827.66	-3472827.59	-3472827.49	0.0258	0.0240
Jupiter	-14213-11-06 19:55 J	-3469564.91	-3469564.67	-3469564.42	0.0502	0.0029
Neptune	-14208-11-21 16:04 J	-3467724.02	-3467723.83	-3467723.60	0.0088	0.0050
Neptune	-14207-11-23 21:35 J	-3467356.86	-3467356.60	-3467356.34	0.0088	0.0013
Uranus	-14206-05-30 23:16 J	-3467168.58	-3467168.53	-3467168.45	0.0132	0.0128
Neptune	-14206-11-26 16:19 J	-3466989.06	-3466988.82	-3466988.56	0.0088	0.0030
Uranus	-14205-06-02 21:35 J	-3466799.78	-3466799.60	-3466799.38	0.0133	0.0078
Neptune	-14205-11-27 21:35 J	-3466621.74	-3466621.60	-3466621.40	0.0088	0.0066
Uranus	-14204-06-07 07:40 J	-3466430.44	-3466430.18	-3466429.93	0.0133	0.0018
Uranus	-14203-06-11 06:28 J	-3466061.47	-3466061.23	-3466060.99	0.0133	0.0025
Uranus	-14202-06-15 16:19 J	-3465692.00	-3465691.82	-3465691.62	0.0134	0.0091
Uranus	-14201-06-18 15:35 J	-3465322.90	-3465322.85	-3465322.79	0.0134	0.0130
Jupiter	-14201-11-11 05:31 J	-3465177.44	-3465177.27	-3465177.10	0.0500	0.0320

Saturn	-14192-12-07 12:28 J	-3461864.22	-3461863.98	-3461863.74	0.0258	0.0072
Saturn	-14177-06-10 04:04 J	-3456565.58	-3456565.33	-3456565.09	0.0305	0.0008
Jupiter	-14171-05-08 15:21 J	-3454406.93	-3454406.86	-3454406.78	0.0523	0.0490
Uranus	-14165-11-28 14:09 J	-3452011.09	-3452010.91	-3452010.70	0.0146	0.0093
Uranus	-14164-12-03 17:16 J	-3451641.04	-3451640.78	-3451640.51	0.0146	0.0018
Saturn	-14163-12-03 04:48 J	-3451276.47	-3451276.30	-3451276.11	0.0258	0.0174
Uranus	-14163-12-08 23:45 J	-3451270.74	-3451270.51	-3451270.26	0.0145	0.0044
Uranus	-14162-12-14 05:16 J	-3450900.40	-3450900.28	-3450900.15	0.0145	0.0126
Jupiter	-14159-05-13 04:33 J	-3450019.55	-3450019.31	-3450019.07	0.0524	0.0006
Mars	-14150-10-11 22:33 J	-3446580.69	-3446580.56	-3446580.43	0.1688	0.1181
Jupiter	-14147-05-18 06:28 J	-3445631.34	-3445631.23	-3445631.10	0.0525	0.0441
Jupiter	-14142-11-02 09:35 J	-3443637.17	-3443637.10	-3443637.03	0.0502	0.0479
Saturn	-14133-12-08 19:40 J	-3440312.88	-3440312.68	-3440312.47	0.0259	0.0140
Jupiter	-14130-11-06 21:35 J	-3439249.82	-3439249.60	-3439249.37	0.0501	0.0107
Neptune	-14125-05-25 17:02 J	-3437587.93	-3437587.79	-3437587.59	0.0089	0.0067
Neptune	-14124-05-28 10:48 J	-3437220.27	-3437220.05	-3437219.79	0.0089	0.0029
Neptune	-14123-05-30 15:21 J	-3436853.10	-3436852.86	-3436852.60	0.0089	0.0013
Uranus	-14122-05-31 14:09 J	-3436487.01	-3436486.91	-3436486.79	0.0132	0.0119
Neptune	-14122-06-02 09:07 J	-3436485.31	-3436485.12	-3436484.88	0.0089	0.0051
Uranus	-14121-06-03 13:26 J	-3436118.15	-3436117.94	-3436117.72	0.0133	0.0067
Uranus	-14120-06-07 22:19 J	-3435748.82	-3435748.57	-3435748.32	0.0133	0.0020
Uranus	-14119-06-11 21:21 J	-3435379.84	-3435379.61	-3435379.38	0.0133	0.0043
Saturn	-14118-06-12 11:02 J	-3435014.27	-3435014.04	-3435013.80	0.0304	0.0104
Uranus	-14118-06-16 06:00 J	-3435010.43	-3435010.25	-3435010.03	0.0134	0.0084
Jupiter	-14118-11-11 15:07 J	-3434862.08	-3434861.87	-3434861.66	0.0501	0.0251
Pluto	-14111-09-24 23:31 J	-3432352.74	-3432352.52	-3432352.27	0.0067	0.0029
Saturn	-14104-12-04 09:07 J	-3429725.36	-3429725.12	-3429724.89	0.0258	0.0104
Saturn	-14089-06-05 06:57 J	-3424428.27	-3424428.21	-3424428.14	0.0304	0.0290
Uranus	-14081-11-28 23:45 J	-3421329.71	-3421329.51	-3421329.31	0.0146	0.0090
Uranus	-14080-12-04 00:43 J	-3420959.73	-3420959.47	-3420959.20	0.0146	0.0021

Uranus	-14079-12-09 08:38 J	-3420589.36	-3420589.14	-3420588.91	0.0145	0.0061
Uranus	-14078-12-14 12:14 J	-3420219.13	-3420218.99	-3420218.82	0.0145	0.0116
Jupiter	-14076-05-12 10:33 J	-3419704.28	-3419704.06	-3419703.83	0.0525	0.0080
Saturn	-14074-12-11 07:40 J	-3418761.31	-3418761.18	-3418761.04	0.0259	0.0213
Mars	-14071-10-13 23:16 J	-3417723.70	-3417723.53	-3417723.35	0.1691	0.0190
Jupiter	-14064-05-17 07:11 J	-3415316.37	-3415316.20	-3415316.02	0.0525	0.0350
Saturn	-14059-06-14 00:57 J	-3413462.63	-3413462.46	-3413462.29	0.0304	0.0215
Jupiter	-14047-11-06 04:19 J	-3408934.54	-3408934.32	-3408934.10	0.0502	0.0187
Saturn	-14045-12-05 13:26 J	-3408174.19	-3408173.94	-3408173.68	0.0258	0.0028
Neptune	-14044-11-20 13:26 J	-3407824.08	-3407823.94	-3407823.76	0.0088	0.0069
Neptune	-14043-11-23 08:09 J	-3407456.38	-3407456.16	-3407455.90	0.0088	0.0039
Neptune	-14042-11-25 14:52 J	-3407089.14	-3407088.88	-3407088.63	0.0088	0.0008
Neptune	-14041-11-27 06:43 J	-3406721.44	-3406721.22	-3406720.96	0.0088	0.0039
Neptune	-14040-11-29 17:02 J	-3406353.82	-3406353.79	-3406353.73	0.0088	0.0086
Uranus	-14038-06-01 04:04 J	-3405805.46	-3405805.33	-3405805.20	0.0133	0.0114
Uranus	-14037-06-04 03:50 J	-3405436.55	-3405436.34	-3405436.12	0.0133	0.0063
Uranus	-14036-06-08 12:14 J	-3405067.25	-3405066.99	-3405066.73	0.0133	0.0005
Uranus	-14035-06-12 12:14 J	-3404698.22	-3404697.99	-3404697.75	0.0133	0.0038
Jupiter	-14035-11-10 11:02 J	-3404547.26	-3404547.04	-3404546.82	0.0501	0.0178
Uranus	-14034-06-16 20:52 J	-3404328.78	-3404328.63	-3404328.45	0.0134	0.0103
Saturn	-14030-06-08 05:16 J	-3402876.47	-3402876.28	-3402876.09	0.0304	0.0175
Pluto	-14024-03-30 21:07 J	-3400753.80	-3400753.62	-3400753.40	0.0077	0.0049

14TH MILLENNIUM BCE

This is a list of transits of Moon in the 14th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Uranus	-13997-11-29 14:09 J	-3390648.11	-3390647.91	-3390647.69	0.0146	0.0080		
Uranus	-13996-12-04 15:07 J	-3390278.13	-3390277.87	-3390277.61	0.0146	0.0006		
Uranus	-13995-12-09 23:31 J	-3389907.74	-3389907.52	-3389907.28	0.0145	0.0055		
Uranus	-13994-12-15 01:55 J	-3389537.48	-3389537.42	-3389537.30	0.0145	0.0137		
Jupiter	-13993-05-11 07:26 J	-3389389.41	-3389389.19	-3389388.96	0.0524	0.0176		
Mars	-13992-10-16 00:28 J	-3388866.55	-3388866.48	-3388866.41	0.1694	0.1547		
Saturn	-13986-12-07 23:02 J	-3386622.78	-3386622.54	-3386622.30	0.0259	0.0049		
Jupiter	-13981-05-16 00:28 J	-3385001.68	-3385001.48	-3385001.28	0.0524	0.0241		
Saturn	-13971-06-10 03:50 J	-3381324.58	-3381324.34	-3381324.10	0.0304	0.0049		
Jupiter	-13964-11-04 22:33 J	-3378619.75	-3378619.56	-3378619.36	0.0501	0.0266		
Neptune	-13961-05-25 04:19 J	-3377687.35	-3377687.32	-3377687.25	0.0089	0.0087		
Neptune	-13960-05-27 08:38 J	-3377320.31	-3377320.14	-3377319.93	0.0089	0.0058		
Neptune	-13959-05-30 02:24 J	-3376952.66	-3376952.40	-3376952.14	0.0089	0.0008		
Neptune	-13958-06-01 08:24 J	-3376585.38	-3376585.15	-3376584.90	0.0089	0.0023		
Neptune	-13957-06-02 21:50 J	-3376217.72	-3376217.59	-3376217.40	0.0089	0.0071		
Saturn	-13957-12-02 16:48 J	-3376034.94	-3376034.80	-3376034.62	0.0259	0.0198		
Uranus	-13954-06-01 18:57 J	-3375123.85	-3375123.71	-3375123.53	0.0133	0.0105		
Uranus	-13953-06-04 19:40 J	-3374754.89	-3374754.68	-3374754.45	0.0133	0.0054		
Uranus	-13952-06-09 03:21 J	-3374385.62	-3374385.36	-3374385.10	0.0133	0.0007		
Jupiter	-13952-11-09 18:28 J	-3374231.96	-3374231.73	-3374231.50	0.0501	0.0098		
Uranus	-13951-06-13 03:35 J	-3374016.56	-3374016.35	-3374016.11	0.0133	0.0057		
Uranus	-13950-06-17 11:16 J	-3373647.20	-3373647.03	-3373646.84	0.0134	0.0096		
Jupiter	-13940-11-13 21:35 J	-3369844.62	-3369844.60	-3369844.57	0.0500	0.0497		
Mars	-13938-04-18 06:00 J	-3369324.41	-3369324.25	-3369324.08	0.1835	0.0742		
Saturn	-13927-12-09 12:57 J	-3365071.17	-3365070.96	-3365070.76	0.0259	0.0129		
Uranus	-13914-11-25 17:02 J	-3360336.85	-3360336.79	-3360336.69	0.0146	0.0138		
Uranus	-13913-11-30 05:02 J	-3359966.50	-3359966.29	-3359966.07	0.0146	0.0075		

Saturn	-13912-06-11 23:31 J	-3359772.75	-3359772.52	-3359772.27	0.0304	0.0081
Uranus	-13912-12-05 04:19 J	-3359596.58	-3359596.32	-3359596.05	0.0146	0.0005
Uranus	-13911-12-10 13:11 J	-3359226.15	-3359225.95	-3359225.72	0.0145	0.0074
Jupiter	-13910-05-11 00:57 J	-3359074.65	-3359074.46	-3359074.27	0.0524	0.0287
Uranus	-13910-12-15 14:52 J	-3358855.99	-3358855.88	-3358855.74	0.0145	0.0128
Jupiter	-13898-05-16 00:57 J	-3354686.69	-3354686.46	-3354686.23	0.0525	0.0128
Saturn	-13898-12-05 00:14 J	-3354483.72	-3354483.49	-3354483.25	0.0259	0.0116
Saturn	-13883-06-06 02:09 J	-3349186.43	-3349186.41	-3349186.38	0.0304	0.0301
Jupiter	-13881-11-04 03:21 J	-3348304.51	-3348304.36	-3348304.19	0.0502	0.0360
Neptune	-13879-11-22 08:09 J	-3347556.33	-3347556.16	-3347555.95	0.0088	0.0057
Neptune	-13878-11-24 23:16 J	-3347188.78	-3347188.53	-3347188.25	0.0088	0.0020
Neptune	-13877-11-26 10:33 J	-3346821.30	-3346821.06	-3346820.81	0.0088	0.0022
Neptune	-13876-11-28 19:55 J	-3346453.84	-3346453.67	-3346453.44	0.0088	0.0059
Uranus	-13870-06-02 08:24 J	-3344442.30	-3344442.15	-3344441.96	0.0133	0.0101
Uranus	-13869-06-05 10:19 J	-3344073.29	-3344073.07	-3344072.84	0.0133	0.0049
Jupiter	-13869-11-08 08:38 J	-3343917.38	-3343917.14	-3343916.90	0.0501	0.0009
Uranus	-13868-06-09 17:02 J	-3343704.05	-3343703.79	-3343703.53	0.0133	0.0008
Saturn	-13868-12-11 02:24 J	-3343519.55	-3343519.40	-3343519.26	0.0259	0.0209
Uranus	-13867-06-13 18:28 J	-3343334.94	-3343334.73	-3343334.65	0.0133	0.0052
Uranus	-13866-06-18 03:35 J	-3342965.35	-3342965.35	-3342965.28	0.0134	0.0119
Mars	-13866-10-12 12:28 J	-3342849.14	-3342848.98	-3342848.82	0.1683	0.1044
Pluto	-13863-09-25 19:11 J	-3341769.93	-3341769.70	-3341769.44	0.0067	0.0012
Jupiter	-13857-11-13 03:35 J	-3339529.46	-3339529.35	-3339529.23	0.0501	0.0431
Saturn	-13853-06-13 19:40 J	-3338220.85	-3338220.68	-3338220.50	0.0304	0.0207
Saturn	-13839-12-06 05:02 J	-3332932.54	-3332932.29	-3332932.04	0.0259	0.0036
Uranus	-13830-11-26 08:38 J	-3329655.18	-3329655.14	-3329655.06	0.0146	0.0142
Uranus	-13829-11-30 21:07 J	-3329284.84	-3329284.62	-3329284.39	0.0146	0.0063
Uranus	-13828-12-05 20:24 J	-3328914.91	-3328914.65	-3328914.39	0.0146	0.0008
Jupiter	-13827-05-10 02:38 J	-3328759.55	-3328759.39	-3328759.22	0.0523	0.0383
Uranus	-13827-12-11 06:14 J	-3328544.46	-3328544.24	-3328544.01	0.0145	0.0069

Saturn	-13824-06-07 23:16 J	-3327634.72	-3327634.53	-3327634.33	0.0304	0.0180
Jupiter	-13815-05-14 19:11 J	-3324371.93	-3324371.70	-3324371.47	0.0524	0.0033
Jupiter	-13803-05-19 21:35 J	-3319983.71	-3319983.60	-3319983.48	0.0525	0.0452
Jupiter	-13798-11-03 21:21 J	-3317989.72	-3317989.61	-3317989.49	0.0503	0.0438
Neptune	-13796-05-26 19:55 J	-3317419.78	-3317419.67	-3317419.51	0.0089	0.0077
Neptune	-13795-05-29 03:35 J	-3317052.56	-3317052.35	-3317052.11	0.0089	0.0036
Neptune	-13794-05-31 16:33 J	-3316685.07	-3316684.81	-3316684.54	0.0089	0.0003
Neptune	-13793-06-02 04:04 J	-3316317.54	-3316317.33	-3316317.11	0.0089	0.0043
Neptune	-13792-06-04 11:02 J	-3315950.11	-3315950.04	-3315949.90	0.0089	0.0082
Mars	-13787-10-15 02:38 J	-3313991.57	-3313991.39	-3313991.21	0.1686	0.0588
Uranus	-13786-06-02 22:33 J	-3313760.74	-3313760.56	-3313760.37	0.0133	0.0091
Jupiter	-13786-11-08 18:00 J	-3313601.97	-3313601.75	-3313601.52	0.0502	0.0062
Uranus	-13785-06-06 00:43 J	-3313391.69	-3313391.47	-3313391.23	0.0133	0.0042
Uranus	-13784-06-10 06:28 J	-3313022.49	-3313022.23	-3313021.97	0.0133	0.0006
Uranus	-13783-06-14 08:38 J	-3312653.34	-3312653.14	-3312652.92	0.0133	0.0068
Uranus	-13782-06-18 14:09 J	-3312284.04	-3312283.91	-3312283.73	0.0134	0.0108
Saturn	-13780-12-07 13:26 J	-3311381.17	-3311380.94	-3311380.70	0.0259	0.0039
Pluto	-13776-03-31 09:35 J	-3310171.35	-3310171.10	-3310170.85	0.0077	0.0008
Jupiter	-13774-11-13 04:48 J	-3309214.46	-3309214.30	-3309214.12	0.0501	0.0365
Saturn	-13765-06-09 11:45 J	-3306083.25	-3306083.01	-3306082.76	0.0304	0.0070
Saturn	-13751-12-03 04:33 J	-3300793.46	-3300793.31	-3300793.15	0.0258	0.0204
Uranus	-13746-11-26 19:40 J	-3298973.79	-3298973.68	-3298973.52	0.0146	0.0125
Uranus	-13745-12-01 08:09 J	-3298603.38	-3298603.16	-3298602.92	0.0146	0.0062
Jupiter	-13744-05-08 22:04 J	-3298444.67	-3298444.58	-3298444.47	0.0523	0.0465
Uranus	-13744-12-06 06:43 J	-3298233.48	-3298233.22	-3298232.96	0.0146	0.0008
Uranus	-13743-12-11 17:02 J	-3297862.98	-3297862.79	-3297862.58	0.0145	0.0086
Uranus	-13742-12-16 16:48 J	-3297492.85	-3297492.80	-3297492.71	0.0145	0.0140
Jupiter	-13732-05-14 02:09 J	-3294056.64	-3294056.41	-3294056.18	0.0524	0.0059
Saturn	-13721-12-08 22:04 J	-3289829.79	-3289829.58	-3289829.35	0.0258	0.0109
Jupiter	-13720-05-18 15:21 J	-3289669.03	-3289668.86	-3289668.69	0.0525	0.0361

Neptune	-13715-11-21 15:07 J	-3287655.98	-3287655.87	-3287655.69	0.0088	0.0076
Neptune	-13714-11-24 04:19 J	-3287288.51	-3287288.32	-3287288.08	0.0088	0.0045
Neptune	-13713-11-25 14:09 J	-3286921.18	-3286920.91	-3286920.64	0.0088	0.0003
Neptune	-13712-11-28 07:11 J	-3286553.44	-3286553.20	-3286552.96	0.0088	0.0032
Neptune	-13711-11-30 12:14 J	-3286186.07	-3286185.99	-3286185.85	0.0088	0.0081
Saturn	-13706-06-11 17:45 J	-3284532.00	-3284531.76	-3284531.51	0.0304	0.0026
Jupiter	-13703-11-07 16:04 J	-3283287.06	-3283286.83	-3283286.59	0.0502	0.0140
Uranus	-13702-06-03 09:35 J	-3283079.28	-3283079.10	-3283078.90	0.0133	0.0090
Uranus	-13701-06-06 13:11 J	-3282710.18	-3282709.95	-3282709.71	0.0133	0.0038
Uranus	-13700-06-10 17:45 J	-3282341.01	-3282340.76	-3282340.50	0.0133	0.0018
Uranus	-13699-06-14 21:21 J	-3281971.81	-3281971.61	-3281971.38	0.0133	0.0062
Uranus	-13698-06-19 02:24 J	-3281602.47	-3281602.40	-3281602.29	0.0134	0.0125
Saturn	-13692-12-04 03:21 J	-3279242.57	-3279242.36	-3279242.14	0.0258	0.0137
Jupiter	-13691-11-12 05:16 J	-3278899.46	-3278899.28	-3278899.10	0.0501	0.0291
Uranus	-13662-11-27 04:04 J	-3268292.41	-3268292.33	-3268292.21	0.0146	0.0133
Saturn	-13662-12-11 00:28 J	-3268278.66	-3268278.48	-3268278.28	0.0258	0.0169
Uranus	-13661-12-01 16:48 J	-3267922.03	-3267921.80	-3267921.56	0.0146	0.0053
Uranus	-13660-12-06 15:07 J	-3267552.13	-3267551.87	-3267551.61	0.0146	0.0016
Uranus	-13659-12-12 02:24 J	-3267181.60	-3267181.40	-3267181.17	0.0145	0.0078
Mars	-13654-04-18 05:16 J	-3265593.44	-3265593.28	-3265593.11	0.1842	0.1108
Jupiter	-13649-05-13 01:26 J	-3263741.67	-3263741.44	-3263741.21	0.0524	0.0125
Saturn	-13647-06-12 21:21 J	-3262980.83	-3262980.61	-3262980.39	0.0304	0.0103
Jupiter	-13637-05-18 06:57 J	-3259353.38	-3259353.21	-3259353.03	0.0524	0.0323
Saturn	-13633-12-05 01:40 J	-3257691.66	-3257691.43	-3257691.19	0.0258	0.0078
Neptune	-13631-05-28 10:33 J	-3257152.23	-3257152.06	-3257151.86	0.0089	0.0064
Neptune	-13630-05-30 23:45 J	-3256784.75	-3256784.51	-3256784.26	0.0089	0.0016
Neptune	-13629-06-01 06:57 J	-3256417.46	-3256417.21	-3256416.95	0.0089	0.0014
Neptune	-13628-06-03 23:31 J	-3256049.67	-3256049.52	-3256049.32	0.0089	0.0063
Jupiter	-13620-11-07 00:14 J	-3252971.70	-3252971.49	-3252971.28	0.0502	0.0188
Uranus	-13618-06-03 22:04 J	-3252397.77	-3252397.58	-3252397.36	0.0133	0.0080

Uranus	-13617-06-07 02:38 J	-3252028.62	-3252028.39	-3252028.14	0.0133	0.0032
Uranus	-13616-06-11 06:00 J	-3251659.51	-3251659.25	-3251658.99	0.0133	0.0018
Uranus	-13615-06-15 10:19 J	-3251290.25	-3251290.07	-3251289.86	0.0133	0.0078
Pluto	-13615-09-26 20:09 J	-3251186.84	-3251186.66	-3251186.41	0.0067	0.0041
Uranus	-13614-06-19 14:24 J	-3250921.02	-3250920.90	-3250920.78	0.0133	0.0117
Pluto	-13614-09-28 12:28 J	-3250820.07	-3250819.98	-3250819.83	0.0067	0.0060
Jupiter	-13608-11-11 19:40 J	-3248583.88	-3248583.68	-3248583.47	0.0502	0.0255
Saturn	-13603-12-11 19:11 J	-3246727.82	-3246727.70	-3246727.57	0.0258	0.0223
Saturn	-13588-06-14 00:28 J	-3241429.67	-3241429.48	-3241429.29	0.0305	0.0174
Mars	-13582-10-13 05:02 J	-3239117.45	-3239117.29	-3239117.13	0.1678	0.0819
Uranus	-13578-11-27 10:33 J	-3237611.20	-3237611.06	-3237610.90	0.0146	0.0117
Uranus	-13577-12-01 22:33 J	-3237240.79	-3237240.56	-3237240.31	0.0146	0.0057
Uranus	-13576-12-06 20:24 J	-3236870.91	-3236870.65	-3236870.39	0.0146	0.0015
Mars	-13575-04-21 10:19 J	-3236735.15	-3236735.07	-3236734.99	0.1837	0.1634
Uranus	-13575-12-12 07:55 J	-3236500.35	-3236500.17	-3236499.96	0.0145	0.0091
Saturn	-13574-12-07 02:38 J	-3236140.63	-3236140.39	-3236140.15	0.0257	0.0024
Uranus	-13574-12-17 06:14 J	-3236130.24	-3236130.24	-3236130.23	0.0145	0.0145
Jupiter	-13566-05-13 18:00 J	-3233425.96	-3233425.75	-3233425.54	0.0523	0.0171
Saturn	-13559-06-07 03:21 J	-3230844.49	-3230844.36	-3230844.21	0.0305	0.0250
Jupiter	-13554-05-18 13:40 J	-3229038.13	-3229037.93	-3229037.72	0.0524	0.0271
Neptune	-13550-11-23 06:43 J	-3227388.39	-3227388.22	-3227388.02	0.0088	0.0064
Neptune	-13549-11-25 00:43 J	-3227020.71	-3227020.47	-3227020.22	0.0088	0.0024
Neptune	-13548-11-27 06:14 J	-3226653.50	-3226653.24	-3226652.98	0.0088	0.0015
Neptune	-13547-11-30 01:26 J	-3226285.64	-3226285.44	-3226285.22	0.0088	0.0054
Jupiter	-13537-11-06 17:02 J	-3222656.01	-3222655.79	-3222655.57	0.0502	0.0215
Uranus	-13535-05-31 06:28 J	-3222085.30	-3222085.23	-3222085.11	0.0132	0.0123
Uranus	-13534-06-04 08:52 J	-3221716.33	-3221716.13	-3221715.91	0.0133	0.0080
Uranus	-13533-06-07 14:52 J	-3221347.11	-3221346.88	-3221346.64	0.0133	0.0026
Uranus	-13532-06-11 17:31 J	-3220978.02	-3220977.77	-3220977.51	0.0133	0.0028
Uranus	-13531-06-15 23:45 J	-3220608.71	-3220608.51	-3220608.31	0.0133	0.0073

Saturn	-13529-06-14 19:55 J	-3219878.82	-3219878.67	-3219878.51	0.0305	0.0231
Pluto	-13528-04-01 07:26 J	-3219588.33	-3219588.19	-3219588.01	0.0077	0.0063
Jupiter	-13525-11-10 20:38 J	-3218268.85	-3218268.64	-3218268.43	0.0501	0.0202
Saturn	-13515-12-08 02:09 J	-3214589.65	-3214589.41	-3214589.16	0.0257	0.0027
Mars	-13503-10-15 13:26 J	-3210260.12	-3210259.94	-3210259.77	0.1681	0.0794
Saturn	-13500-06-07 21:21 J	-3209293.79	-3209293.61	-3209293.42	0.0305	0.0194
Uranus	-13494-11-27 19:11 J	-3206929.81	-3206929.70	-3206929.56	0.0146	0.0126
Uranus	-13493-12-02 07:11 J	-3206559.45	-3206559.20	-3206558.95	0.0146	0.0045
Uranus	-13492-12-07 05:16 J	-3206189.53	-3206189.28	-3206189.02	0.0146	0.0021
Uranus	-13491-12-12 17:31 J	-3205818.97	-3205818.77	-3205818.56	0.0145	0.0084
Saturn	-13486-12-02 23:16 J	-3204002.63	-3204002.53	-3204002.39	0.0257	0.0226
Jupiter	-13483-05-13 01:11 J	-3203110.67	-3203110.45	-3203110.23	0.0523	0.0228
Jupiter	-13471-05-17 23:02 J	-3198722.73	-3198722.54	-3198722.33	0.0524	0.0239
Saturn	-13470-06-16 07:26 J	-3198328.26	-3198328.19	-3198328.09	0.0305	0.0286
Neptune	-13467-05-27 20:52 J	-3197251.69	-3197251.63	-3197251.52	0.0089	0.0083
Neptune	-13466-05-30 03:07 J	-3196884.59	-3196884.37	-3196884.12	0.0089	0.0041
Neptune	-13465-05-31 20:52 J	-3196516.88	-3196516.63	-3196516.38	0.0089	0.0003
Neptune	-13464-06-03 00:28 J	-3196149.69	-3196149.48	-3196149.23	0.0089	0.0039
Neptune	-13463-06-05 18:28 J	-3195781.86	-3195781.73	-3195781.58	0.0089	0.0075
Saturn	-13456-12-08 18:43 J	-3193038.96	-3193038.72	-3193038.47	0.0257	0.0073
Jupiter	-13454-11-06 18:14 J	-3192340.93	-3192340.74	-3192340.54	0.0502	0.0266
Uranus	-13451-05-31 19:55 J	-3191403.72	-3191403.67	-3191403.59	0.0133	0.0127
Uranus	-13450-06-04 21:21 J	-3191034.82	-3191034.61	-3191034.38	0.0133	0.0068
Uranus	-13449-06-08 04:33 J	-3190665.55	-3190665.31	-3190665.07	0.0133	0.0021
Uranus	-13448-06-12 05:45 J	-3190296.51	-3190296.26	-3190296.00	0.0133	0.0029
Uranus	-13447-06-16 12:43 J	-3189927.14	-3189926.97	-3189926.78	0.0133	0.0087
Uranus	-13446-06-20 14:52 J	-3189557.95	-3189557.88	-3189557.80	0.0134	0.0127
Jupiter	-13442-11-11 16:19 J	-3187953.04	-3187952.82	-3187952.61	0.0502	0.0177
Saturn	-13441-06-08 18:00 J	-3187742.95	-3187742.75	-3187742.54	0.0305	0.0142
Saturn	-13427-12-03 20:52 J	-3182451.80	-3182451.63	-3182451.46	0.0257	0.0180

Uranus	-13410-11-28 07:26 J	-3176248.35	-3176248.19	-3176248.01	0.0146	0.0106
Uranus	-13409-12-02 18:28 J	-3175877.97	-3175877.73	-3175877.48	0.0146	0.0048
Uranus	-13408-12-07 16:33 J	-3175508.06	-3175507.81	-3175507.56	0.0145	0.0025
Uranus	-13407-12-13 03:50 J	-3175137.51	-3175137.34	-3175137.13	0.0145	0.0100
Jupiter	-13400-05-12 14:09 J	-3172795.11	-3172794.91	-3172794.72	0.0524	0.0262
Saturn	-13397-12-09 08:38 J	-3171488.35	-3171488.14	-3171487.90	0.0258	0.0119
Jupiter	-13388-05-17 18:28 J	-3168406.94	-3168406.73	-3168406.51	0.0524	0.0212
Neptune	-13386-11-22 19:40 J	-3167487.76	-3167487.68	-3167487.54	0.0088	0.0080
Neptune	-13385-11-24 00:57 J	-3167120.66	-3167120.46	-3167120.23	0.0088	0.0050
Neptune	-13384-11-26 20:24 J	-3166752.91	-3166752.65	-3166752.38	0.0088	0.0002
Neptune	-13383-11-29 02:24 J	-3166385.63	-3166385.40	-3166385.15	0.0088	0.0029
Saturn	-13382-06-10 12:43 J	-3166192.20	-3166191.97	-3166191.73	0.0305	0.0087
Neptune	-13382-12-01 18:28 J	-3166017.85	-3166017.73	-3166017.57	0.0088	0.0075
Jupiter	-13371-11-06 14:24 J	-3162025.09	-3162024.90	-3162024.70	0.0503	0.0285
Mars	-13370-04-17 06:28 J	-3161863.28	-3161863.23	-3161863.18	0.1850	0.1779
Saturn	-13368-12-04 20:52 J	-3160900.84	-3160900.63	-3160900.42	0.0258	0.0132
Uranus	-13367-06-01 07:55 J	-3160722.29	-3160722.17	-3160722.03	0.0133	0.0111
Uranus	-13366-06-05 08:24 J	-3160353.36	-3160353.15	-3160352.92	0.0133	0.0070
Pluto	-13366-09-29 06:00 J	-3160237.49	-3160237.25	-3160236.99	0.0067	0.0017
Uranus	-13365-06-08 16:48 J	-3159984.04	-3159983.80	-3159983.56	0.0133	0.0014
Uranus	-13364-06-12 17:45 J	-3159615.01	-3159614.76	-3159614.51	0.0133	0.0038
Uranus	-13363-06-17 01:55 J	-3159245.60	-3159245.42	-3159245.22	0.0133	0.0084
Jupiter	-13359-11-10 23:02 J	-3157637.77	-3157637.54	-3157637.31	0.0502	0.0147
Saturn	-13338-12-11 06:28 J	-3149937.41	-3149937.23	-3149937.04	0.0258	0.0165
Uranus	-13326-11-28 21:07 J	-3145566.76	-3145566.62	-3145566.44	0.0146	0.0113
Uranus	-13325-12-03 07:55 J	-3145196.42	-3145196.17	-3145195.91	0.0146	0.0032
Uranus	-13324-12-08 06:28 J	-3144826.47	-3144826.23	-3144825.98	0.0145	0.0033
Saturn	-13323-06-11 05:31 J	-3144641.52	-3144641.27	-3144641.02	0.0305	0.0027
Uranus	-13323-12-13 18:14 J	-3144455.92	-3144455.74	-3144455.54	0.0145	0.0095
Jupiter	-13317-05-12 04:33 J	-3142479.50	-3142479.31	-3142479.12	0.0523	0.0314

Saturn	-13309-12-05 17:45 J	-3139349.99	-3139349.76	-3139349.51	0.0258	0.0082
Jupiter	-13305-05-16 17:02 J	-3138092.01	-3138091.79	-3138091.57	0.0524	0.0148
Neptune	-13302-05-29 18:00 J	-3136983.90	-3136983.75	-3136983.56	0.0089	0.0067
Neptune	-13301-05-30 22:19 J	-3136616.80	-3136616.57	-3136616.30	0.0089	0.0021
Neptune	-13300-06-02 16:19 J	-3136249.08	-3136248.82	-3136248.56	0.0089	0.0010
Neptune	-13299-06-04 22:04 J	-3135881.75	-3135881.58	-3135881.38	0.0089	0.0058
Neptune	-13298-06-07 12:00 J	-3135514.01	-3135514.00	-3135513.95	0.0089	0.0089
Mars	-13298-10-14 14:38 J	-3135385.06	-3135384.89	-3135384.72	0.1673	0.0441
Mars	-13291-04-21 00:14 J	-3133004.67	-3133004.49	-3133004.31	0.1844	0.0975
Jupiter	-13288-11-05 15:35 J	-3131710.02	-3131709.85	-3131709.66	0.0502	0.0327
Uranus	-13283-06-01 20:52 J	-3130040.73	-3130040.63	-3130040.50	0.0133	0.0117
Uranus	-13282-06-05 20:38 J	-3129671.86	-3129671.64	-3129671.39	0.0133	0.0057
Uranus	-13281-06-09 06:00 J	-3129302.49	-3129302.25	-3129302.00	0.0133	0.0011
Uranus	-13280-06-13 05:31 J	-3128933.50	-3128933.27	-3128933.01	0.0133	0.0040
Pluto	-13279-04-03 22:33 J	-3128638.79	-3128638.56	-3128638.31	0.0077	0.0034
Uranus	-13279-06-17 14:38 J	-3128564.05	-3128563.89	-3128563.71	0.0133	0.0097
Saturn	-13279-12-12 09:50 J	-3128386.21	-3128386.09	-3128385.95	0.0258	0.0216
Jupiter	-13276-11-10 09:21 J	-3127322.33	-3127322.11	-3127321.89	0.0501	0.0092
Saturn	-13264-06-12 05:16 J	-3123090.52	-3123090.28	-3123090.04	0.0305	0.0047
Jupiter	-13264-11-14 21:07 J	-3122934.71	-3122934.62	-3122934.51	0.0501	0.0453
Saturn	-13250-12-07 13:55 J	-3117799.17	-3117798.92	-3117798.66	0.0258	0.0027
Uranus	-13242-11-29 11:02 J	-3114885.22	-3114885.04	-3114884.84	0.0146	0.0092
Uranus	-13241-12-03 20:52 J	-3114514.88	-3114514.63	-3114514.37	0.0146	0.0034
Uranus	-13240-12-08 19:40 J	-3114144.92	-3114144.68	-3114144.43	0.0145	0.0039
Uranus	-13239-12-14 06:43 J	-3113774.38	-3113774.22	-3113774.05	0.0145	0.0110
Jupiter	-13234-05-12 01:40 J	-3112164.58	-3112164.43	-3112164.27	0.0523	0.0384
Jupiter	-13222-05-17 07:40 J	-3107776.40	-3107776.18	-3107775.95	0.0524	0.0101
Neptune	-13221-11-23 15:07 J	-3107220.02	-3107219.87	-3107219.67	0.0088	0.0067
Neptune	-13220-11-25 22:19 J	-3106852.81	-3106852.57	-3106852.32	0.0088	0.0026
Mars	-13219-10-16 12:28 J	-3106528.11	-3106527.98	-3106527.85	0.1676	0.1109

Neptune	-13219-11-28 13:26 J	-3106485.20	-3106484.94	-3106484.66	0.0088	0.0011
Neptune	-13218-12-01 00:43 J	-3106117.66	-3106117.47	-3106117.25	0.0088	0.0051
Saturn	-13205-06-13 16:04 J	-3101539.03	-3101538.83	-3101538.62	0.0305	0.0137
Jupiter	-13205-11-05 01:55 J	-3101394.56	-3101394.42	-3101394.27	0.0502	0.0380
Uranus	-13199-06-02 07:26 J	-3099359.33	-3099359.19	-3099359.01	0.0133	0.0101
Uranus	-13198-06-06 06:43 J	-3098990.44	-3098990.22	-3098989.98	0.0133	0.0061
Uranus	-13197-06-09 16:48 J	-3098621.04	-3098620.80	-3098620.55	0.0133	0.0004
Uranus	-13196-06-13 15:50 J	-3098252.07	-3098251.84	-3098251.59	0.0133	0.0046
Uranus	-13195-06-18 01:55 J	-3097882.58	-3097882.42	-3097882.23	0.0133	0.0092
Jupiter	-13193-11-09 13:55 J	-3097007.16	-3097006.92	-3097006.67	0.0502	0.0032
Saturn	-13191-12-08 15:50 J	-3096248.08	-3096247.84	-3096247.59	0.0258	0.0038
Jupiter	-13181-11-14 02:24 J	-3092619.54	-3092619.40	-3092619.26	0.0501	0.0393
Saturn	-13176-06-07 11:02 J	-3090953.16	-3090953.04	-3090952.90	0.0304	0.0261
Saturn	-13162-12-04 09:21 J	-3085660.25	-3085660.11	-3085659.94	0.0259	0.0203
Uranus	-13158-11-29 20:24 J	-3084203.81	-3084203.65	-3084203.46	0.0146	0.0102
Uranus	-13157-12-04 05:31 J	-3083833.53	-3083833.27	-3083833.00	0.0146	0.0021
Uranus	-13156-12-09 05:16 J	-3083463.51	-3083463.28	-3083463.03	0.0145	0.0042
Uranus	-13155-12-14 16:04 J	-3083092.99	-3083092.83	-3083092.63	0.0145	0.0105
Jupiter	-13151-05-11 11:31 J	-3081849.12	-3081849.02	-3081848.91	0.0523	0.0458
Saturn	-13146-06-16 10:19 J	-3079987.20	-3079987.07	-3079986.92	0.0304	0.0243
Jupiter	-13139-05-16 03:07 J	-3077461.61	-3077461.37	-3077461.13	0.0524	0.0021
Neptune	-13138-05-28 20:38 J	-3077083.67	-3077083.64	-3077083.54	0.0089	0.0087
Neptune	-13137-05-30 14:09 J	-3076716.12	-3076715.91	-3076715.66	0.0089	0.0043
Neptune	-13136-06-01 21:07 J	-3076348.86	-3076348.62	-3076348.37	0.0089	0.0007
Neptune	-13135-06-04 10:33 J	-3075981.30	-3075981.06	-3075980.82	0.0089	0.0036
Neptune	-13134-06-06 21:35 J	-3075613.73	-3075613.60	-3075613.43	0.0089	0.0072
Saturn	-13132-12-10 01:55 J	-3074696.63	-3074696.42	-3074696.20	0.0258	0.0108
Jupiter	-13127-05-21 00:28 J	-3073073.56	-3073073.48	-3073073.39	0.0524	0.0481
Jupiter	-13122-11-05 04:04 J	-3071079.43	-3071079.33	-3071079.20	0.0503	0.0440
Pluto	-13118-09-30 13:11 J	-3069654.19	-3069653.95	-3069653.69	0.0067	0.0013

Saturn	-13117-06-09 01:11 J	-3069401.67	-3069401.45	-3069401.24	0.0304	0.0148
Uranus	-13115-06-02 18:57 J	-3068677.84	-3068677.71	-3068677.56	0.0132	0.0108
Uranus	-13114-06-06 17:16 J	-3068309.01	-3068308.78	-3068308.53	0.0133	0.0047
Uranus	-13113-06-10 03:50 J	-3067939.58	-3067939.34	-3067939.09	0.0133	0.0004
Uranus	-13112-06-14 01:40 J	-3067570.65	-3067570.43	-3067570.18	0.0133	0.0049
Uranus	-13111-06-18 12:00 J	-3067201.13	-3067201.00	-3067200.83	0.0133	0.0104
Jupiter	-13110-11-09 15:35 J	-3066692.08	-3066691.85	-3066691.62	0.0501	0.0040
Saturn	-13103-12-05 14:38 J	-3064109.10	-3064108.89	-3064108.66	0.0259	0.0130
Jupiter	-13098-11-14 08:24 J	-3062304.34	-3062304.15	-3062303.96	0.0501	0.0307
Mars	-13093-10-12 01:26 J	-3060510.53	-3060510.44	-3060510.33	0.1666	0.1432
Uranus	-13074-11-30 03:35 J	-3053522.53	-3053522.35	-3053522.13	0.0146	0.0085
Uranus	-13073-12-04 11:16 J	-3053152.28	-3053152.03	-3053151.76	0.0146	0.0029
Saturn	-13073-12-11 15:50 J	-3053145.01	-3053144.84	-3053144.67	0.0258	0.0185
Uranus	-13072-12-09 12:00 J	-3052782.23	-3052782.00	-3052781.75	0.0145	0.0046
Uranus	-13071-12-14 21:50 J	-3052411.75	-3052411.59	-3052411.43	0.0145	0.0115
Saturn	-13058-06-11 23:31 J	-3047849.75	-3047849.52	-3047849.28	0.0304	0.0026
Neptune	-13057-11-22 19:26 J	-3047319.76	-3047319.69	-3047319.56	0.0088	0.0082
Jupiter	-13056-05-15 01:55 J	-3047146.64	-3047146.42	-3047146.20	0.0524	0.0072
Neptune	-13056-11-25 10:04 J	-3046952.29	-3046952.08	-3046951.85	0.0088	0.0051
Neptune	-13055-11-27 21:50 J	-3046584.84	-3046584.59	-3046584.33	0.0088	0.0004
Neptune	-13054-11-30 06:43 J	-3046217.46	-3046217.22	-3046216.95	0.0088	0.0027
Neptune	-13053-12-01 23:16 J	-3045849.65	-3045849.53	-3045849.37	0.0088	0.0073
Jupiter	-13044-05-19 22:33 J	-3042758.71	-3042758.56	-3042758.39	0.0525	0.0381
Saturn	-13044-12-06 20:52 J	-3042557.87	-3042557.63	-3042557.37	0.0259	0.0053
Pluto	-13031-04-04 23:31 J	-3038055.75	-3038055.52	-3038055.26	0.0077	0.0025
Uranus	-13031-06-03 04:33 J	-3037996.48	-3037996.31	-3037996.12	0.0132	0.0091
Uranus	-13030-06-07 02:38 J	-3037627.62	-3037627.39	-3037627.16	0.0133	0.0053
Uranus	-13029-06-10 13:40 J	-3037258.18	-3037257.93	-3037257.68	0.0133	0.0005
Uranus	-13028-06-14 11:31 J	-3036889.26	-3036889.02	-3036888.79	0.0133	0.0053
Uranus	-13027-06-18 22:19 J	-3036519.72	-3036519.57	-3036519.39	0.0133	0.0100

Jupiter	-13027-11-08 18:14 J	-3036376.97	-3036376.74	-3036376.51	0.0502	0.0130
Jupiter	-13015-11-12 23:45 J	-3031989.72	-3031989.51	-3031989.30	0.0501	0.0213
Mars	-13014-10-15 14:38 J	-3031653.09	-3031652.89	-3031652.69	0.1669	0.0103
Mars	-13007-04-20 07:26 J	-3029274.38	-3029274.19	-3029274.00	0.1852	0.0058

13TH MILLENNIUM BCE

This is a list of transits of Moon in the 13th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-12999-06-14 04:19 J	-3026297.54	-3026297.32	-3026297.10	0.0304	0.0106		
Uranus	-12990-11-30 09:07 J	-3022841.29	-3022841.12	-3022840.92	0.0146	0.0097		
Uranus	-12989-12-04 15:21 J	-3022471.12	-3022470.86	-3022470.59	0.0146	0.0015		
Uranus	-12988-12-09 17:31 J	-3022101.00	-3022100.77	-3022100.53	0.0145	0.0044		
Uranus	-12987-12-15 02:09 J	-3021730.57	-3021730.41	-3021730.23	0.0145	0.0109		
Saturn	-12985-12-08 09:07 J	-3021006.36	-3021006.12	-3021005.88	0.0259	0.0028		
Jupiter	-12973-05-13 22:04 J	-3016831.80	-3016831.58	-3016831.35	0.0524	0.0170		
Neptune	-12973-05-29 20:24 J	-3016815.79	-3016815.65	-3016815.47	0.0089	0.0068		
Neptune	-12972-06-01 09:35 J	-3016448.35	-3016448.10	-3016447.84	0.0089	0.0021		
Neptune	-12971-06-03 21:50 J	-3016080.83	-3016080.59	-3016080.33	0.0089	0.0010		
Neptune	-12970-06-06 05:02 J	-3015713.47	-3015713.29	-3015713.07	0.0089	0.0056		
Saturn	-12970-06-08 00:00 J	-3015711.59	-3015711.50	-3015711.39	0.0304	0.0278		
Neptune	-12969-06-07 21:21 J	-3015345.64	-3015345.61	-3015345.54	0.0089	0.0087		
Jupiter	-12961-05-18 17:45 J	-3012443.94	-3012443.76	-3012443.57	0.0524	0.0288		
Saturn	-12956-12-04 03:21 J	-3010418.50	-3010418.36	-3010418.20	0.0259	0.0204		

Uranus	-12947-06-03 14:52 J	-3007315.02	-3007314.88	-3007314.69	0.0133	0.0100
Uranus	-12946-06-07 12:43 J	-3006946.21	-3006945.97	-3006945.72	0.0133	0.0038
Uranus	-12945-06-11 00:14 J	-3006576.74	-3006576.49	-3006576.24	0.0133	0.0004
Uranus	-12944-06-14 21:07 J	-3006207.83	-3006207.62	-3006207.38	0.0133	0.0057
Jupiter	-12944-11-07 11:45 J	-3006062.21	-3006062.01	-3006061.79	0.0502	0.0214
Uranus	-12943-06-19 08:24 J	-3005838.28	-3005838.15	-3005838.00	0.0133	0.0110
Saturn	-12940-06-16 06:00 J	-3004745.39	-3004745.25	-3004745.09	0.0304	0.0235
Mars	-12935-10-17 21:35 J	-3002795.64	-3002795.60	-3002795.55	0.1671	0.1608
Jupiter	-12932-11-12 09:07 J	-3001674.34	-3001674.12	-3001673.89	0.0501	0.0135
Saturn	-12926-12-10 23:16 J	-2999454.75	-2999454.53	-2999454.31	0.0259	0.0106
Saturn	-12911-06-09 20:09 J	-2994159.86	-2994159.66	-2994159.43	0.0304	0.0151
Uranus	-12906-11-30 18:28 J	-2992159.94	-2992159.73	-2992159.52	0.0146	0.0078
Uranus	-12905-12-04 22:33 J	-2991789.82	-2991789.56	-2991789.30	0.0146	0.0024
Uranus	-12904-12-10 01:26 J	-2991419.66	-2991419.44	-2991419.19	0.0145	0.0053
Uranus	-12903-12-15 08:09 J	-2991049.29	-2991049.16	-2991048.98	0.0145	0.0117
Saturn	-12897-12-05 09:35 J	-2988867.32	-2988867.10	-2988866.87	0.0259	0.0126
Neptune	-12892-11-24 19:26 J	-2987051.83	-2987051.69	-2987051.50	0.0088	0.0068
Neptune	-12891-11-27 04:19 J	-2986684.56	-2986684.32	-2986684.05	0.0088	0.0026
Jupiter	-12890-05-13 17:31 J	-2986516.96	-2986516.77	-2986516.57	0.0523	0.0262
Neptune	-12890-11-29 22:04 J	-2986316.83	-2986316.58	-2986316.32	0.0088	0.0009
Neptune	-12889-12-01 03:07 J	-2985949.57	-2985949.37	-2985949.14	0.0088	0.0051
Neptune	-12888-12-03 22:19 J	-2985581.60	-2985581.57	-2985581.51	0.0088	0.0087
Jupiter	-12878-05-18 18:43 J	-2982128.94	-2982128.72	-2982128.49	0.0524	0.0184
Pluto	-12870-10-01 06:14 J	-2979071.42	-2979071.24	-2979071.07	0.0066	0.0048
Pluto	-12869-10-02 00:28 J	-2978704.63	-2978704.48	-2978704.26	0.0067	0.0048
Saturn	-12867-12-12 09:35 J	-2977903.26	-2977903.10	-2977902.91	0.0258	0.0183
Uranus	-12863-06-04 00:28 J	-2976633.68	-2976633.48	-2976633.29	0.0133	0.0082
Uranus	-12862-06-07 21:35 J	-2976264.83	-2976264.60	-2976264.36	0.0133	0.0046
Uranus	-12861-06-11 09:07 J	-2975895.36	-2975895.12	-2975894.86	0.0133	0.0013
Jupiter	-12861-11-06 22:48 J	-2975746.74	-2975746.55	-2975746.36	0.0502	0.0284

Uranus	-12860-06-15 06:28 J	-2975526.44	-2975526.23	-2975525.99	0.0133	0.0059
Uranus	-12859-06-19 18:28 J	-2975156.87	-2975156.73	-2975156.57	0.0134	0.0107
Saturn	-12852-06-11 15:21 J	-2972608.09	-2972607.86	-2972607.62	0.0304	0.0037
Jupiter	-12849-11-11 00:00 J	-2971359.74	-2971359.50	-2971359.27	0.0502	0.0047
Saturn	-12838-12-07 13:26 J	-2967316.18	-2967315.94	-2967315.69	0.0258	0.0052
Jupiter	-12837-11-15 18:14 J	-2966971.85	-2966971.74	-2966971.61	0.0501	0.0423
Uranus	-12823-11-25 20:52 J	-2961848.67	-2961848.63	-2961848.55	0.0146	0.0142
Uranus	-12822-12-01 05:02 J	-2961478.48	-2961478.29	-2961478.09	0.0146	0.0087
Uranus	-12821-12-05 07:55 J	-2961108.44	-2961108.17	-2961107.91	0.0146	0.0006
Uranus	-12820-12-10 12:00 J	-2960738.22	-2960738.00	-2960737.76	0.0145	0.0051
Uranus	-12819-12-15 17:45 J	-2960367.90	-2960367.76	-2960367.59	0.0145	0.0117
Neptune	-12809-05-29 08:09 J	-2956915.22	-2956915.16	-2956915.08	0.0089	0.0086
Mars	-12809-10-13 02:09 J	-2956778.55	-2956778.41	-2956778.27	0.1661	0.1023
Neptune	-12808-05-31 21:21 J	-2956547.81	-2956547.61	-2956547.38	0.0089	0.0042
Saturn	-12808-12-13 12:43 J	-2956352.02	-2956351.97	-2956351.89	0.0258	0.0249
Jupiter	-12807-05-12 20:24 J	-2956201.82	-2956201.65	-2956201.47	0.0523	0.0349
Neptune	-12807-06-03 04:48 J	-2956180.56	-2956180.30	-2956180.03	0.0089	0.0008
Neptune	-12806-06-05 21:50 J	-2955812.80	-2955812.59	-2955812.34	0.0089	0.0037
Neptune	-12805-06-07 02:09 J	-2955445.55	-2955445.41	-2955445.23	0.0089	0.0070
Jupiter	-12795-05-17 13:55 J	-2951814.15	-2951813.92	-2951813.70	0.0524	0.0097
Saturn	-12793-06-13 07:55 J	-2951056.40	-2951056.17	-2951055.94	0.0304	0.0065
Jupiter	-12783-05-22 20:52 J	-2947425.69	-2947425.63	-2947425.56	0.0524	0.0501
Pluto	-12782-04-07 17:31 J	-2947105.81	-2947105.77	-2947105.66	0.0077	0.0074
Uranus	-12780-05-30 22:48 J	-2946321.62	-2946321.55	-2946321.46	0.0133	0.0126
Uranus	-12779-06-04 10:19 J	-2945952.24	-2945952.07	-2945951.87	0.0133	0.0092
Saturn	-12779-12-08 19:55 J	-2945764.91	-2945764.67	-2945764.43	0.0258	0.0013
Uranus	-12778-06-08 08:09 J	-2945583.40	-2945583.16	-2945582.91	0.0133	0.0030
Jupiter	-12778-11-06 14:52 J	-2945432.04	-2945431.88	-2945431.72	0.0503	0.0366
Uranus	-12777-06-11 19:40 J	-2945213.93	-2945213.68	-2945213.42	0.0133	0.0011
Uranus	-12776-06-15 17:02 J	-2944844.99	-2944844.79	-2944844.56	0.0133	0.0065

Uranus	-12775-06-20 04:19 J	-2944475.42	-2944475.32	-2944475.17	0.0134	0.0116
Jupiter	-12766-11-11 10:48 J	-2941044.28	-2941044.05	-2941043.82	0.0502	0.0017
Jupiter	-12754-11-15 23:31 J	-2936656.68	-2936656.52	-2936656.36	0.0501	0.0372
Saturn	-12750-12-04 06:57 J	-2935177.31	-2935177.21	-2935177.09	0.0258	0.0231
Uranus	-12739-11-26 09:50 J	-2931167.12	-2931167.09	-2931167.05	0.0146	0.0144
Uranus	-12738-12-01 18:14 J	-2930796.95	-2930796.74	-2930796.51	0.0146	0.0067
Uranus	-12737-12-05 19:40 J	-2930426.94	-2930426.68	-2930426.41	0.0145	0.0014
Uranus	-12736-12-11 00:43 J	-2930056.68	-2930056.47	-2930056.23	0.0145	0.0063
Uranus	-12735-12-16 04:48 J	-2929686.42	-2929686.30	-2929686.14	0.0145	0.0124
Saturn	-12734-06-15 14:09 J	-2929505.11	-2929504.91	-2929504.68	0.0304	0.0148
Mars	-12730-10-16 04:19 J	-2927921.51	-2927921.32	-2927921.13	0.1664	0.0068
Neptune	-12728-11-24 01:55 J	-2927151.52	-2927151.42	-2927151.31	0.0088	0.0081
Neptune	-12727-11-26 19:55 J	-2926783.88	-2926783.67	-2926783.46	0.0088	0.0051
Neptune	-12726-11-29 00:57 J	-2926416.72	-2926416.46	-2926416.20	0.0088	0.0004
Neptune	-12725-11-30 19:40 J	-2926048.92	-2926048.68	-2926048.41	0.0088	0.0026
Jupiter	-12724-05-11 23:45 J	-2925886.66	-2925886.51	-2925886.36	0.0523	0.0396
Neptune	-12724-12-03 01:26 J	-2925681.58	-2925681.44	-2925681.29	0.0088	0.0073
Mars	-12723-04-20 12:00 J	-2925543.19	-2925543.00	-2925542.81	0.1858	0.0337
Saturn	-12720-12-10 01:26 J	-2924213.67	-2924213.44	-2924213.20	0.0258	0.0070
Jupiter	-12712-05-17 04:19 J	-2921498.55	-2921498.32	-2921498.09	0.0523	0.0034
Saturn	-12705-06-07 19:40 J	-2918919.78	-2918919.68	-2918919.58	0.0304	0.0274
Jupiter	-12700-05-21 19:26 J	-2917110.82	-2917110.69	-2917110.54	0.0524	0.0425
Uranus	-12695-06-04 19:26 J	-2915270.90	-2915270.69	-2915270.47	0.0133	0.0074
Jupiter	-12695-11-06 06:28 J	-2915116.35	-2915116.23	-2915116.10	0.0503	0.0417
Uranus	-12694-06-08 17:02 J	-2914902.02	-2914901.79	-2914901.54	0.0133	0.0039
Uranus	-12693-06-12 04:19 J	-2914532.57	-2914532.32	-2914532.06	0.0133	0.0021
Uranus	-12692-06-16 01:55 J	-2914163.62	-2914163.42	-2914163.19	0.0133	0.0066
Uranus	-12691-06-20 13:26 J	-2913794.05	-2913793.94	-2913793.79	0.0134	0.0115
Saturn	-12691-12-05 01:55 J	-2913626.59	-2913626.42	-2913626.22	0.0258	0.0177
Jupiter	-12683-11-10 18:28 J	-2910728.97	-2910728.73	-2910728.48	0.0502	0.0065

Saturn	-12675-06-16 09:21 J	-2907954.28	-2907954.11	-2907953.92	0.0304	0.0211
Jupiter	-12671-11-15 02:24 J	-2906341.57	-2906341.40	-2906341.22	0.0501	0.0317
Saturn	-12661-12-10 22:48 J	-2902662.77	-2902662.55	-2902662.31	0.0258	0.0120
Uranus	-12655-11-26 19:11 J	-2900485.79	-2900485.70	-2900485.57	0.0146	0.0131
Uranus	-12654-12-02 04:48 J	-2900115.51	-2900115.30	-2900115.08	0.0146	0.0076
Uranus	-12653-12-06 05:16 J	-2899745.54	-2899745.28	-2899745.01	0.0145	0.0005
Uranus	-12652-12-11 11:45 J	-2899375.22	-2899375.01	-2899374.77	0.0145	0.0060
Uranus	-12651-12-16 15:07 J	-2899004.98	-2899004.87	-2899004.72	0.0145	0.0127
Saturn	-12646-06-09 21:07 J	-2897368.78	-2897368.62	-2897368.45	0.0305	0.0217
Neptune	-12644-05-31 04:33 J	-2896647.46	-2896647.31	-2896647.11	0.0089	0.0066
Neptune	-12643-06-02 22:19 J	-2896279.80	-2896279.57	-2896279.31	0.0089	0.0021
Neptune	-12642-06-05 02:38 J	-2895912.63	-2895912.39	-2895912.13	0.0089	0.0011
Jupiter	-12641-05-11 14:09 J	-2895571.03	-2895570.91	-2895570.79	0.0522	0.0443
Neptune	-12641-06-06 20:24 J	-2895544.83	-2895544.65	-2895544.43	0.0089	0.0057
Neptune	-12640-06-09 01:55 J	-2895177.45	-2895177.42	-2895177.36	0.0089	0.0088
Saturn	-12632-12-05 23:16 J	-2892075.73	-2892075.53	-2892075.31	0.0258	0.0128
Jupiter	-12629-05-16 04:48 J	-2891183.53	-2891183.30	-2891183.06	0.0523	0.0034
Pluto	-12621-10-03 00:14 J	-2888121.71	-2888121.49	-2888121.25	0.0067	0.0025
Jupiter	-12617-05-21 08:52 J	-2886795.28	-2886795.13	-2886794.97	0.0524	0.0377
Saturn	-12616-06-17 03:07 J	-2886403.49	-2886403.37	-2886403.25	0.0305	0.0264
Uranus	-12612-05-31 17:02 J	-2884958.88	-2884958.79	-2884958.67	0.0133	0.0119
Jupiter	-12612-11-05 10:19 J	-2884801.14	-2884801.07	-2884800.98	0.0503	0.0474
Uranus	-12611-06-05 04:04 J	-2884589.53	-2884589.33	-2884589.13	0.0133	0.0084
Uranus	-12610-06-09 02:24 J	-2884220.64	-2884220.40	-2884220.15	0.0133	0.0023
Uranus	-12609-06-12 13:11 J	-2883851.20	-2883850.95	-2883850.69	0.0133	0.0016
Uranus	-12608-06-16 11:16 J	-2883482.22	-2883482.03	-2883481.80	0.0133	0.0073
Uranus	-12607-06-20 22:19 J	-2883112.67	-2883112.57	-2883112.45	0.0134	0.0120
Saturn	-12602-12-12 14:38 J	-2881112.09	-2881111.89	-2881111.69	0.0258	0.0162
Jupiter	-12600-11-09 23:16 J	-2880413.75	-2880413.53	-2880413.31	0.0502	0.0125
Jupiter	-12588-11-14 18:43 J	-2876025.91	-2876025.72	-2876025.52	0.0502	0.0286

Saturn	-12587-06-10 16:19 J	-2875818.01	-2875817.82	-2875817.60	0.0305	0.0165
Saturn	-12573-12-06 23:16 J	-2870524.76	-2870524.53	-2870524.30	0.0258	0.0083
Uranus	-12571-11-27 02:24 J	-2869804.47	-2869804.40	-2869804.28	0.0146	0.0135
Uranus	-12570-12-02 12:57 J	-2869434.18	-2869433.96	-2869433.72	0.0146	0.0059
Uranus	-12569-12-06 12:14 J	-2869064.25	-2869063.99	-2869063.72	0.0145	0.0007
Uranus	-12568-12-11 20:09 J	-2868693.88	-2868693.66	-2868693.44	0.0145	0.0071
Uranus	-12567-12-16 21:35 J	-2868323.70	-2868323.60	-2868323.47	0.0145	0.0129
Neptune	-12563-11-25 23:31 J	-2866883.67	-2866883.52	-2866883.33	0.0088	0.0067
Neptune	-12562-11-28 18:43 J	-2866515.97	-2866515.72	-2866515.46	0.0088	0.0024
Neptune	-12561-11-30 00:57 J	-2866148.71	-2866148.46	-2866148.21	0.0088	0.0009
Neptune	-12560-12-02 17:02 J	-2865781.00	-2865780.79	-2865780.56	0.0088	0.0051
Neptune	-12559-12-05 02:24 J	-2865413.43	-2865413.40	-2865413.32	0.0088	0.0086
Jupiter	-12558-05-11 19:11 J	-2865255.79	-2865255.70	-2865255.61	0.0522	0.0483
Jupiter	-12546-05-16 23:45 J	-2860867.73	-2860867.51	-2860867.29	0.0524	0.0064
Saturn	-12543-12-13 08:38 J	-2859561.27	-2859561.14	-2859560.98	0.0257	0.0206
Pluto	-12534-04-08 10:19 J	-2856523.30	-2856523.07	-2856522.82	0.0077	0.0025
Jupiter	-12534-05-21 22:48 J	-2856479.73	-2856479.55	-2856479.37	0.0524	0.0342
Uranus	-12528-06-01 01:40 J	-2854277.48	-2854277.43	-2854277.36	0.0133	0.0128
Saturn	-12528-06-11 04:33 J	-2854267.53	-2854267.31	-2854267.07	0.0305	0.0123
Uranus	-12527-06-05 11:02 J	-2853908.25	-2853908.04	-2853907.80	0.0133	0.0068
Uranus	-12526-06-09 10:19 J	-2853539.30	-2853539.07	-2853538.83	0.0133	0.0033
Uranus	-12525-06-12 20:09 J	-2853169.91	-2853169.66	-2853169.40	0.0133	0.0028
Mars	-12525-10-14 12:28 J	-2853046.16	-2853045.98	-2853045.81	0.1658	0.0552
Uranus	-12524-06-16 18:57 J	-2852800.90	-2852800.71	-2852800.48	0.0133	0.0070
Uranus	-12523-06-21 05:16 J	-2852431.37	-2852431.28	-2852431.15	0.0133	0.0120
Jupiter	-12517-11-09 18:00 J	-2850097.97	-2850097.75	-2850097.52	0.0503	0.0157
Saturn	-12514-12-08 20:38 J	-2848973.89	-2848973.64	-2848973.39	0.0258	0.0037
Jupiter	-12505-11-14 01:40 J	-2845710.62	-2845710.43	-2845710.23	0.0502	0.0259
Uranus	-12487-11-27 06:00 J	-2839123.36	-2839123.25	-2839123.11	0.0146	0.0127
Uranus	-12486-12-02 16:48 J	-2838753.01	-2838752.80	-2838752.57	0.0146	0.0071

Uranus	-12485-12-06 15:21 J	-2838383.12	-2838382.86	-2838382.60	0.0145	0.0010
Uranus	-12484-12-12 00:43 J	-2838012.69	-2838012.47	-2838012.24	0.0145	0.0062
Saturn	-12484-12-14 07:40 J	-2838010.23	-2838010.18	-2838010.12	0.0258	0.0250
Uranus	-12483-12-17 01:11 J	-2837642.54	-2837642.45	-2837642.33	0.0145	0.0132
Neptune	-12480-05-30 23:02 J	-2836746.61	-2836746.54	-2836746.46	0.0089	0.0084
Neptune	-12479-06-02 03:21 J	-2836379.58	-2836379.36	-2836379.13	0.0089	0.0040
Neptune	-12478-06-04 21:21 J	-2836011.87	-2836011.61	-2836011.35	0.0089	0.0007
Neptune	-12477-06-06 03:07 J	-2835644.58	-2835644.37	-2835644.13	0.0089	0.0037
Neptune	-12476-06-08 17:31 J	-2835276.91	-2835276.77	-2835276.59	0.0089	0.0071
Jupiter	-12475-05-11 12:00 J	-2834940.02	-2834940.00	-2834939.95	0.0522	0.0516
Saturn	-12469-06-11 18:28 J	-2832716.96	-2832716.73	-2832716.49	0.0305	0.0078
Jupiter	-12463-05-16 10:19 J	-2830552.31	-2830552.07	-2830551.84	0.0523	0.0113
Saturn	-12455-12-09 12:57 J	-2827423.22	-2827422.96	-2827422.70	0.0258	0.0005
Jupiter	-12451-05-21 03:35 J	-2826164.53	-2826164.35	-2826164.16	0.0524	0.0292
Mars	-12446-10-17 10:48 J	-2824189.22	-2824189.05	-2824188.88	0.1660	0.0467
Uranus	-12444-06-01 10:04 J	-2823596.19	-2823596.08	-2823595.94	0.0133	0.0113
Uranus	-12443-06-05 18:57 J	-2823226.90	-2823226.71	-2823226.48	0.0133	0.0078
Uranus	-12442-06-09 19:40 J	-2822857.92	-2822857.68	-2822857.44	0.0133	0.0016
Uranus	-12441-06-13 04:33 J	-2822488.56	-2822488.31	-2822488.05	0.0133	0.0021
Uranus	-12440-06-17 04:33 J	-2822119.49	-2822119.31	-2822119.10	0.0133	0.0079
Mars	-12439-04-19 14:52 J	-2821813.05	-2821812.88	-2821812.71	0.1865	0.1193
Uranus	-12439-06-21 13:40 J	-2821750.01	-2821749.93	-2821749.82	0.0133	0.0124
Jupiter	-12434-11-09 20:09 J	-2819782.86	-2819782.66	-2819782.44	0.0502	0.0202
Saturn	-12426-12-04 18:57 J	-2816835.78	-2816835.71	-2816835.62	0.0259	0.0243
Jupiter	-12422-11-14 17:16 J	-2815394.98	-2815394.78	-2815394.56	0.0501	0.0218
Saturn	-12410-06-13 17:31 J	-2811166.00	-2811165.77	-2811165.54	0.0305	0.0023
Uranus	-12403-11-27 10:19 J	-2808442.17	-2808442.07	-2808441.94	0.0146	0.0129
Uranus	-12402-12-02 21:50 J	-2808071.82	-2808071.59	-2808071.35	0.0146	0.0056
Uranus	-12401-12-06 19:26 J	-2807701.95	-2807701.69	-2807701.43	0.0145	0.0004
Uranus	-12400-12-12 05:16 J	-2807331.48	-2807331.28	-2807331.05	0.0145	0.0075

Neptune	-12399-11-25 16:19 J	-2806982.91	-2806982.82	-2806982.68	0.0088	0.0079
Uranus	-12399-12-17 04:33 J	-2806961.42	-2806961.31	-2806961.19	0.0145	0.0129
Neptune	-12398-11-27 23:02 J	-2806615.73	-2806615.54	-2806615.32	0.0088	0.0049
Neptune	-12397-11-29 14:38 J	-2806248.16	-2806247.89	-2806247.62	0.0088	0.0003
Neptune	-12396-12-02 01:55 J	-2805880.66	-2805880.42	-2805880.18	0.0088	0.0027
Saturn	-12396-12-10 06:00 J	-2805872.49	-2805872.25	-2805872.00	0.0258	0.0050
Neptune	-12395-12-04 12:00 J	-2805513.12	-2805513.00	-2805512.82	0.0088	0.0073
Jupiter	-12380-05-15 15:50 J	-2800237.06	-2800236.84	-2800236.63	0.0523	0.0172
Pluto	-12373-10-04 04:19 J	-2797538.58	-2797538.32	-2797538.05	0.0067	0.0003
Jupiter	-12368-05-20 21:35 J	-2795848.81	-2795848.60	-2795848.40	0.0524	0.0257
Saturn	-12367-12-05 20:52 J	-2795284.78	-2795284.63	-2795284.46	0.0259	0.0195
Uranus	-12360-06-01 18:14 J	-2792914.82	-2792914.74	-2792914.62	0.0133	0.0121
Uranus	-12359-06-06 02:09 J	-2792545.64	-2792545.41	-2792545.18	0.0133	0.0061
Uranus	-12358-06-10 03:35 J	-2792176.59	-2792176.35	-2792176.11	0.0133	0.0026
Uranus	-12357-06-13 11:16 J	-2791807.27	-2791807.03	-2791806.77	0.0133	0.0035
Uranus	-12356-06-17 12:43 J	-2791438.16	-2791437.97	-2791437.76	0.0133	0.0075
Uranus	-12355-06-21 21:21 J	-2791068.68	-2791068.61	-2791068.52	0.0133	0.0127
Saturn	-12351-06-14 21:35 J	-2789614.84	-2789614.60	-2789614.36	0.0304	0.0041
Jupiter	-12351-11-09 13:40 J	-2789467.13	-2789466.93	-2789466.73	0.0502	0.0242
Jupiter	-12339-11-13 21:07 J	-2785079.85	-2785079.62	-2785079.40	0.0502	0.0177
Saturn	-12337-12-11 07:26 J	-2784321.41	-2784321.19	-2784320.97	0.0258	0.0101
Uranus	-12319-11-27 17:16 J	-2777760.90	-2777760.78	-2777760.63	0.0146	0.0123
Uranus	-12318-12-03 04:33 J	-2777390.53	-2777390.31	-2777390.08	0.0146	0.0064
Uranus	-12317-12-07 01:40 J	-2777020.68	-2777020.43	-2777020.17	0.0145	0.0015
Uranus	-12316-12-12 12:57 J	-2776650.19	-2776649.96	-2776649.73	0.0145	0.0065
Neptune	-12315-06-01 22:04 J	-2776478.75	-2776478.58	-2776478.40	0.0089	0.0065
Uranus	-12315-12-17 10:33 J	-2776280.11	-2776280.06	-2776279.95	0.0145	0.0138
Neptune	-12314-06-04 04:19 J	-2776111.55	-2776111.32	-2776111.07	0.0089	0.0020
Neptune	-12313-06-05 18:14 J	-2775744.01	-2775743.74	-2775743.48	0.0089	0.0013
Neptune	-12312-06-08 05:02 J	-2775376.47	-2775376.29	-2775376.09	0.0089	0.0058

Neptune	-12311-06-10 13:40 J	-2775008.94	-2775008.93	-2775008.87	0.0089	0.0089
Saturn	-12308-12-06 18:57 J	-2773733.91	-2773733.71	-2773733.49	0.0259	0.0142
Jupiter	-12297-05-15 04:19 J	-2769921.52	-2769921.32	-2769921.11	0.0523	0.0239
Saturn	-12292-06-16 02:52 J	-2768063.60	-2768063.38	-2768063.15	0.0304	0.0121
Pluto	-12286-04-09 11:45 J	-2765940.27	-2765940.01	-2765939.75	0.0077	0.0022
Jupiter	-12285-05-19 19:26 J	-2765533.91	-2765533.69	-2765533.48	0.0524	0.0189
Saturn	-12278-12-13 13:40 J	-2762770.11	-2762769.93	-2762769.72	0.0258	0.0159
Uranus	-12276-06-02 03:21 J	-2762233.49	-2762233.36	-2762233.21	0.0133	0.0107
Uranus	-12275-06-06 10:19 J	-2761864.29	-2761864.07	-2761863.85	0.0133	0.0070
Uranus	-12274-06-10 13:26 J	-2761495.18	-2761494.94	-2761494.69	0.0133	0.0010
Uranus	-12273-06-13 20:24 J	-2761125.90	-2761125.65	-2761125.39	0.0133	0.0027
Uranus	-12272-06-17 23:16 J	-2760756.71	-2760756.53	-2760756.34	0.0133	0.0086
Uranus	-12271-06-22 06:14 J	-2760387.30	-2760387.24	-2760387.16	0.0134	0.0128
Jupiter	-12268-11-08 14:52 J	-2759152.07	-2759151.88	-2759151.68	0.0503	0.0289
Saturn	-12263-06-09 14:52 J	-2757477.95	-2757477.88	-2757477.79	0.0303	0.0282
Jupiter	-12256-11-13 06:28 J	-2754764.44	-2754764.23	-2754764.01	0.0501	0.0131
Saturn	-12249-12-07 17:31 J	-2752183.00	-2752182.77	-2752182.52	0.0259	0.0084
Mars	-12241-10-15 08:09 J	-2749314.36	-2749314.16	-2749313.96	0.1653	0.0199
Uranus	-12235-11-28 03:50 J	-2747079.46	-2747079.34	-2747079.17	0.0146	0.0119
Neptune	-12234-11-27 12:57 J	-2746715.12	-2746714.96	-2746714.76	0.0088	0.0066
Uranus	-12234-12-03 15:21 J	-2746709.10	-2746708.86	-2746708.61	0.0146	0.0048
Saturn	-12233-06-17 10:33 J	-2746512.22	-2746512.06	-2746511.88	0.0304	0.0218
Neptune	-12233-11-29 01:11 J	-2746347.69	-2746347.45	-2746347.20	0.0088	0.0023
Uranus	-12233-12-07 12:28 J	-2746339.24	-2746338.98	-2746338.73	0.0145	0.0005
Neptune	-12232-12-01 10:19 J	-2745980.33	-2745980.07	-2745979.79	0.0088	0.0011
Uranus	-12232-12-12 23:31 J	-2745968.73	-2745968.52	-2745968.31	0.0145	0.0083
Neptune	-12231-12-04 02:52 J	-2745612.58	-2745612.38	-2745612.17	0.0088	0.0052
Uranus	-12231-12-17 20:09 J	-2745598.73	-2745598.66	-2745598.54	0.0145	0.0135
Neptune	-12230-12-06 08:24 J	-2745245.19	-2745245.15	-2745245.06	0.0088	0.0086
Saturn	-12219-12-14 18:14 J	-2741218.85	-2741218.74	-2741218.60	0.0258	0.0224

Jupiter	-12214-05-14 20:24 J	-2739606.82	-2739606.65	-2739606.46	0.0523	0.0329
Saturn	-12204-06-11 10:48 J	-2735926.24	-2735926.05	-2735925.86	0.0303	0.0174
Jupiter	-12202-05-20 01:26 J	-2735218.66	-2735218.44	-2735218.21	0.0524	0.0108
Uranus	-12192-06-02 12:57 J	-2731552.08	-2731551.96	-2731551.83	0.0133	0.0112
Uranus	-12191-06-06 18:14 J	-2731182.98	-2731182.74	-2731182.50	0.0133	0.0054
Uranus	-12190-06-10 22:19 J	-2730813.81	-2730813.57	-2730813.32	0.0133	0.0019
Saturn	-12190-12-09 23:45 J	-2730631.76	-2730631.51	-2730631.27	0.0259	0.0014
Uranus	-12189-06-14 03:50 J	-2730444.58	-2730444.34	-2730444.08	0.0133	0.0043
Uranus	-12188-06-18 07:55 J	-2730075.35	-2730075.17	-2730074.96	0.0133	0.0081
Uranus	-12187-06-22 14:24 J	-2729705.90	-2729705.90	-2729705.89	0.0134	0.0134
Jupiter	-12185-11-07 22:04 J	-2728836.74	-2728836.58	-2728836.41	0.0502	0.0348
Jupiter	-12173-11-12 08:09 J	-2724449.40	-2724449.16	-2724448.92	0.0502	0.0060
Mars	-12162-10-18 18:14 J	-2720456.90	-2720456.74	-2720456.58	0.1656	0.0898
Jupiter	-12161-11-16 17:16 J	-2720061.88	-2720061.78	-2720061.67	0.0501	0.0437
Saturn	-12161-12-04 16:48 J	-2720043.87	-2720043.80	-2720043.70	0.0260	0.0244
Neptune	-12151-06-01 05:16 J	-2716578.36	-2716578.28	-2716578.17	0.0089	0.0082
Uranus	-12151-11-28 15:50 J	-2716397.99	-2716397.84	-2716397.67	0.0146	0.0112
Neptune	-12150-06-03 18:28 J	-2716210.95	-2716210.73	-2716210.47	0.0089	0.0039
Uranus	-12150-12-04 02:24 J	-2716027.63	-2716027.40	-2716027.14	0.0146	0.0053
Neptune	-12149-06-05 06:43 J	-2715843.46	-2715843.22	-2715842.97	0.0089	0.0006
Uranus	-12149-12-07 23:45 J	-2715657.76	-2715657.51	-2715657.25	0.0145	0.0025
Neptune	-12148-06-07 14:38 J	-2715476.12	-2715475.89	-2715475.65	0.0089	0.0038
Uranus	-12148-12-13 11:02 J	-2715287.25	-2715287.04	-2715286.81	0.0145	0.0074
Neptune	-12147-06-10 06:14 J	-2715108.37	-2715108.24	-2715108.07	0.0089	0.0071
Saturn	-12145-06-13 08:09 J	-2714374.40	-2714374.16	-2714373.92	0.0303	0.0052
Jupiter	-12131-05-14 00:14 J	-2709291.62	-2709291.49	-2709291.36	0.0523	0.0428
Saturn	-12131-12-11 11:45 J	-2709080.23	-2709080.01	-2709079.77	0.0259	0.0064
Pluto	-12125-10-05 14:09 J	-2706955.15	-2706954.91	-2706954.66	0.0067	0.0011
Jupiter	-12119-05-18 17:02 J	-2704904.03	-2704903.79	-2704903.55	0.0524	0.0013
Uranus	-12108-06-02 22:19 J	-2700870.72	-2700870.57	-2700870.40	0.0133	0.0100

Jupiter	-12107-05-23 18:28 J	-2700515.81	-2700515.73	-2700515.66	0.0524	0.0492
Uranus	-12107-06-07 02:52 J	-2700501.61	-2700501.38	-2700501.15	0.0133	0.0062
Uranus	-12106-06-11 08:52 J	-2700132.38	-2700132.13	-2700131.89	0.0133	0.0002
Uranus	-12105-06-14 12:57 J	-2699763.20	-2699762.96	-2699762.70	0.0133	0.0034
Uranus	-12104-06-18 18:28 J	-2699393.90	-2699393.73	-2699393.55	0.0133	0.0093
Uranus	-12103-06-22 22:48 J	-2699024.57	-2699024.55	-2699024.50	0.0134	0.0132
Jupiter	-12102-11-07 19:55 J	-2698521.79	-2698521.67	-2698521.54	0.0503	0.0428
Saturn	-12102-12-06 23:31 J	-2698492.72	-2698492.52	-2698492.33	0.0260	0.0168
Jupiter	-12090-11-12 06:14 J	-2694134.47	-2694134.24	-2694134.01	0.0502	0.0015
Saturn	-12086-06-16 05:16 J	-2692822.52	-2692822.28	-2692822.03	0.0304	0.0078
Jupiter	-12078-11-17 00:00 J	-2689746.66	-2689746.50	-2689746.32	0.0501	0.0359
Mars	-12076-04-22 04:19 J	-2689224.48	-2689224.32	-2689224.16	0.1868	0.1225
Saturn	-12072-12-13 01:26 J	-2687528.64	-2687528.44	-2687528.23	0.0259	0.0142
Neptune	-12070-11-26 23:45 J	-2686814.60	-2686814.51	-2686814.36	0.0088	0.0079
Neptune	-12069-11-28 08:38 J	-2686447.34	-2686447.14	-2686446.89	0.0088	0.0047
Neptune	-12068-12-01 02:24 J	-2686079.65	-2686079.40	-2686079.14	0.0088	0.0003
Uranus	-12067-11-29 02:24 J	-2685716.55	-2685716.40	-2685716.22	0.0146	0.0107
Neptune	-12067-12-03 07:40 J	-2685712.42	-2685712.18	-2685711.92	0.0088	0.0028
Uranus	-12066-12-04 12:57 J	-2685346.20	-2685345.96	-2685345.70	0.0146	0.0038
Neptune	-12066-12-06 02:24 J	-2685344.51	-2685344.40	-2685344.23	0.0088	0.0074
Uranus	-12065-12-08 10:48 J	-2684976.30	-2684976.05	-2684975.80	0.0145	0.0015
Uranus	-12064-12-13 21:50 J	-2684605.78	-2684605.59	-2684605.39	0.0145	0.0092
Uranus	-12063-12-18 18:14 J	-2684235.76	-2684235.74	-2684235.68	0.0145	0.0143
Saturn	-12057-06-09 03:07 J	-2682236.37	-2682236.37	-2682236.37	0.0303	0.0302
Jupiter	-12048-05-12 16:33 J	-2678976.84	-2678976.81	-2678976.76	0.0523	0.0515
Saturn	-12043-12-08 06:28 J	-2676941.46	-2676941.23	-2676940.99	0.0259	0.0090
Pluto	-12038-04-10 16:19 J	-2675357.02	-2675356.82	-2675356.62	0.0077	0.0046
Jupiter	-12036-05-17 16:33 J	-2674589.03	-2674588.81	-2674588.59	0.0523	0.0083
Mars	-12036-10-14 05:31 J	-2674439.36	-2674439.27	-2674439.17	0.1648	0.1373
Saturn	-12027-06-18 01:55 J	-2671270.59	-2671270.42	-2671270.23	0.0304	0.0208

Jupiter	-12024-05-22 13:11 J	-2670201.10	-2670200.95	-2670200.78	0.0524	0.0387
Uranus	-12024-06-03 07:11 J	-2670189.34	-2670189.20	-2670189.03	0.0133	0.0104
Uranus	-12023-06-07 10:04 J	-2669820.32	-2669820.08	-2669819.83	0.0133	0.0048
Uranus	-12022-06-11 17:02 J	-2669451.04	-2669450.79	-2669450.55	0.0133	0.0012
Uranus	-12021-06-14 19:26 J	-2669081.91	-2669081.69	-2669081.43	0.0133	0.0049
Uranus	-12020-06-19 02:09 J	-2668712.58	-2668712.41	-2668712.21	0.0133	0.0085
Jupiter	-12019-11-06 19:26 J	-2668206.69	-2668206.69	-2668206.68	0.0503	0.0503
Saturn	-12013-12-14 10:48 J	-2665977.17	-2665977.05	-2665976.91	0.0259	0.0221
Jupiter	-12007-11-11 12:43 J	-2663819.21	-2663818.97	-2663818.74	0.0502	0.0086

12TH MILLENNIUM BCE

This is a list of transits of Moon in the 12th millennium BCE.

	FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-11998-06-12 06:28 J	-2660684.42	-2660684.23	-2660684.03	0.0303	0.0174			
Jupiter	-11995-11-15 14:24 J	-2659432.10	-2659431.90	-2659431.70	0.0501	0.0264			
Neptune	-11986-06-03 07:11 J	-2656310.37	-2656310.20	-2656310.02	0.0089	0.0062			
Neptune	-11985-06-04 14:52 J	-2655943.13	-2655942.88	-2655942.62	0.0089	0.0018			
Neptune	-11984-06-07 07:55 J	-2655575.41	-2655575.17	-2655574.91	0.0089	0.0015			
Saturn	-11984-12-09 19:11 J	-2655389.95	-2655389.70	-2655389.46	0.0259	0.0012			
Neptune	-11983-06-09 12:43 J	-2655208.16	-2655207.97	-2655207.78	0.0089	0.0059			
Uranus	-11983-11-29 10:04 J	-2655035.25	-2655035.08	-2655034.90	0.0146	0.0104			
Uranus	-11982-12-04 19:26 J	-2654664.93	-2654664.69	-2654664.43	0.0146	0.0043			
Uranus	-11981-12-08 17:31 J	-2654295.01	-2654294.77	-2654294.52	0.0145	0.0033			

Uranus	-11980-12-14 04:48 J	-2653924.51	-2653924.30	-2653924.08	0.0145	0.0081
Mars	-11957-10-16 03:21 J	-2645582.54	-2645582.36	-2645582.18	0.1650	0.0162
Saturn	-11955-12-05 11:16 J	-2644802.10	-2644802.03	-2644801.93	0.0260	0.0244
Jupiter	-11953-05-16 10:33 J	-2644274.29	-2644274.06	-2644273.83	0.0523	0.0182
Jupiter	-11941-05-21 06:43 J	-2639886.40	-2639886.22	-2639886.03	0.0524	0.0294
Uranus	-11940-06-03 16:33 J	-2639507.97	-2639507.81	-2639507.62	0.0132	0.0094
Uranus	-11939-06-07 18:14 J	-2639138.96	-2639138.74	-2639138.49	0.0133	0.0055
Saturn	-11939-06-14 01:40 J	-2639132.67	-2639132.43	-2639132.18	0.0303	0.0055
Uranus	-11938-06-12 02:38 J	-2638769.63	-2638769.39	-2638769.14	0.0133	0.0005
Uranus	-11937-06-15 03:50 J	-2638400.57	-2638400.34	-2638400.08	0.0133	0.0039
Uranus	-11936-06-19 11:45 J	-2638031.17	-2638031.01	-2638030.84	0.0133	0.0098
Saturn	-11925-12-11 08:52 J	-2633838.36	-2633838.13	-2633837.89	0.0259	0.0065
Jupiter	-11924-11-10 03:07 J	-2633504.58	-2633504.37	-2633504.15	0.0503	0.0178
Jupiter	-11912-11-14 23:02 J	-2629116.75	-2629116.54	-2629116.32	0.0502	0.0185
Neptune	-11905-11-28 01:11 J	-2626546.62	-2626546.45	-2626546.27	0.0088	0.0065
Neptune	-11904-11-30 06:00 J	-2626179.50	-2626179.25	-2626179.00	0.0088	0.0021
Neptune	-11903-12-03 00:43 J	-2625811.72	-2625811.47	-2625811.20	0.0088	0.0011
Neptune	-11902-12-05 06:14 J	-2625444.43	-2625444.24	-2625444.03	0.0088	0.0054
Neptune	-11901-12-06 22:48 J	-2625076.59	-2625076.55	-2625076.46	0.0088	0.0086
Uranus	-11899-11-29 15:21 J	-2624354.03	-2624353.86	-2624353.66	0.0146	0.0099
Uranus	-11898-12-05 00:00 J	-2623983.75	-2623983.50	-2623983.24	0.0146	0.0033
Uranus	-11897-12-08 23:16 J	-2623613.78	-2623613.53	-2623613.28	0.0145	0.0021
Saturn	-11896-12-06 15:21 J	-2623251.04	-2623250.86	-2623250.65	0.0259	0.0172
Uranus	-11896-12-14 09:07 J	-2623243.30	-2623243.12	-2623242.92	0.0145	0.0098
Saturn	-11880-06-15 11:31 J	-2617581.26	-2617581.02	-2617580.77	0.0304	0.0050
Mars	-11878-10-19 09:21 J	-2616725.26	-2616725.11	-2616724.96	0.1652	0.1108
Pluto	-11877-10-06 19:26 J	-2616371.94	-2616371.69	-2616371.44	0.0067	0.0020
Jupiter	-11870-05-16 12:28 J	-2613959.17	-2613958.98	-2613958.77	0.0523	0.0241
Saturn	-11866-12-13 16:33 J	-2612287.01	-2612286.81	-2612286.59	0.0259	0.0136
Jupiter	-11858-05-21 16:04 J	-2609571.04	-2609570.83	-2609570.61	0.0523	0.0228

Uranus	-11856-06-04 01:40 J	-2608826.60	-2608826.43	-2608826.26	0.0132	0.0095
Uranus	-11855-06-08 01:40 J	-2608457.67	-2608457.43	-2608457.17	0.0133	0.0042
Uranus	-11854-06-12 10:48 J	-2608088.29	-2608088.05	-2608087.80	0.0133	0.0005
Uranus	-11853-06-15 10:48 J	-2607719.27	-2607719.05	-2607718.80	0.0133	0.0055
Uranus	-11852-06-19 19:55 J	-2607349.84	-2607349.67	-2607349.48	0.0133	0.0090
Jupiter	-11841-11-09 16:33 J	-2603189.01	-2603188.81	-2603188.60	0.0503	0.0231
Saturn	-11837-12-07 18:57 J	-2601699.93	-2601699.71	-2601699.48	0.0259	0.0103
Jupiter	-11829-11-13 23:45 J	-2598801.74	-2598801.51	-2598801.27	0.0502	0.0122
Neptune	-11822-06-02 14:24 J	-2596409.99	-2596409.90	-2596409.77	0.0089	0.0081
Neptune	-11821-06-04 08:09 J	-2596042.38	-2596042.16	-2596041.92	0.0089	0.0036
Saturn	-11821-06-16 18:57 J	-2596029.92	-2596029.71	-2596029.49	0.0304	0.0140
Neptune	-11820-06-06 12:57 J	-2595675.21	-2595674.96	-2595674.70	0.0089	0.0006
Neptune	-11819-06-09 06:57 J	-2595307.43	-2595307.21	-2595306.97	0.0089	0.0040
Neptune	-11818-06-11 11:45 J	-2594940.14	-2594940.01	-2594939.84	0.0089	0.0072
Jupiter	-11817-11-18 12:43 J	-2594414.06	-2594413.97	-2594413.87	0.0501	0.0450
Uranus	-11815-11-29 21:35 J	-2593672.77	-2593672.60	-2593672.41	0.0146	0.0100
Uranus	-11814-12-05 04:33 J	-2593302.57	-2593302.31	-2593302.05	0.0146	0.0036
Uranus	-11813-12-09 04:33 J	-2592932.55	-2592932.31	-2592932.07	0.0146	0.0036
Uranus	-11812-12-14 13:40 J	-2592562.13	-2592561.93	-2592561.70	0.0145	0.0084
Saturn	-11807-12-14 16:19 J	-2590735.97	-2590735.82	-2590735.64	0.0258	0.0198
Mars	-11792-04-21 19:40 J	-2585493.86	-2585493.68	-2585493.50	0.1874	0.0477
Saturn	-11792-06-10 13:40 J	-2585444.04	-2585443.93	-2585443.83	0.0303	0.0273
Pluto	-11790-04-11 21:21 J	-2584773.81	-2584773.61	-2584773.40	0.0078	0.0050
Jupiter	-11787-05-15 22:04 J	-2583643.77	-2583643.58	-2583643.39	0.0522	0.0300
Saturn	-11778-12-09 23:45 J	-2580148.74	-2580148.51	-2580148.27	0.0259	0.0045
Jupiter	-11775-05-20 10:48 J	-2579256.27	-2579256.05	-2579255.82	0.0523	0.0151
Uranus	-11773-05-31 00:28 J	-2578514.48	-2578514.48	-2578514.48	0.0132	0.0132
Uranus	-11772-06-04 11:02 J	-2578145.22	-2578145.04	-2578144.85	0.0133	0.0087
Uranus	-11771-06-08 10:19 J	-2577776.30	-2577776.07	-2577775.81	0.0133	0.0047
Uranus	-11770-06-12 20:52 J	-2577406.88	-2577406.63	-2577406.39	0.0133	0.0011

Uranus	-11769-06-15 19:55 J	-2577037.90	-2577037.67	-2577037.42	0.0133	0.0045
Uranus	-11768-06-20 05:31 J	-2576668.40	-2576668.27	-2576668.10	0.0133	0.0105
Saturn	-11762-06-18 23:45 J	-2574478.67	-2574478.51	-2574478.34	0.0304	0.0215
Jupiter	-11758-11-09 13:55 J	-2572874.10	-2572873.92	-2572873.72	0.0503	0.0293
Mars	-11752-10-15 16:04 J	-2570706.98	-2570706.83	-2570706.67	0.1644	0.0912
Saturn	-11748-12-15 12:43 J	-2569185.00	-2569184.97	-2569184.90	0.0258	0.0252
Jupiter	-11746-11-14 07:40 J	-2568486.40	-2568486.18	-2568485.95	0.0502	0.0055
Neptune	-11741-11-27 04:33 J	-2566646.42	-2566646.31	-2566646.16	0.0088	0.0077
Neptune	-11740-11-29 23:31 J	-2566278.73	-2566278.52	-2566278.28	0.0088	0.0046
Neptune	-11739-12-02 05:45 J	-2565911.51	-2565911.26	-2565911.00	0.0088	0.0002
Neptune	-11738-12-04 21:50 J	-2565543.84	-2565543.59	-2565543.33	0.0088	0.0029
Neptune	-11737-12-06 06:57 J	-2565176.32	-2565176.21	-2565176.05	0.0088	0.0074
Jupiter	-11734-11-18 19:55 J	-2564098.81	-2564098.67	-2564098.52	0.0502	0.0400
Saturn	-11733-06-11 09:21 J	-2563893.29	-2563893.11	-2563892.92	0.0304	0.0208
Uranus	-11731-11-30 07:11 J	-2562991.38	-2562991.20	-2562991.00	0.0146	0.0090
Uranus	-11730-12-05 12:43 J	-2562621.22	-2562620.97	-2562620.70	0.0146	0.0028
Uranus	-11729-12-09 13:55 J	-2562251.16	-2562250.92	-2562250.67	0.0146	0.0028
Uranus	-11728-12-14 21:50 J	-2561880.76	-2561880.59	-2561880.39	0.0145	0.0103
Saturn	-11719-12-11 02:24 J	-2558597.65	-2558597.40	-2558597.16	0.0259	0.0006
Jupiter	-11704-05-14 22:33 J	-2553328.72	-2553328.56	-2553328.38	0.0522	0.0353
Saturn	-11703-06-20 00:28 J	-2552927.57	-2552927.48	-2552927.37	0.0304	0.0274
Jupiter	-11692-05-20 07:55 J	-2548940.40	-2548940.17	-2548939.95	0.0524	0.0121
Saturn	-11690-12-06 01:26 J	-2548010.51	-2548010.44	-2548010.35	0.0259	0.0245
Uranus	-11689-05-31 09:07 J	-2547833.13	-2547833.12	-2547833.09	0.0133	0.0132
Uranus	-11688-06-04 20:09 J	-2547463.83	-2547463.66	-2547463.46	0.0133	0.0087
Uranus	-11687-06-08 18:57 J	-2547094.96	-2547094.71	-2547094.46	0.0133	0.0035
Uranus	-11686-06-13 05:45 J	-2546725.51	-2546725.26	-2546725.02	0.0133	0.0003
Uranus	-11685-06-16 04:19 J	-2546356.54	-2546356.32	-2546356.09	0.0133	0.0062
Uranus	-11684-06-20 15:21 J	-2545987.03	-2545986.86	-2545986.69	0.0133	0.0095
Jupiter	-11680-05-25 01:26 J	-2544552.47	-2544552.44	-2544552.38	0.0524	0.0514

Jupiter	-11675-11-09 05:02 J	-2542558.46	-2542558.29	-2542558.12	0.0503	0.0334
Saturn	-11674-06-13 00:14 J	-2542342.69	-2542342.49	-2542342.28	0.0304	0.0158
Mars	-11673-10-17 15:21 J	-2541850.03	-2541849.86	-2541849.70	0.1646	0.0643
Jupiter	-11663-11-13 18:43 J	-2538170.96	-2538170.72	-2538170.47	0.0503	0.0017
Saturn	-11660-12-11 20:24 J	-2537046.90	-2537046.65	-2537046.40	0.0258	0.0050
Neptune	-11657-06-03 11:45 J	-2536142.18	-2536142.01	-2536141.81	0.0089	0.0062
Neptune	-11656-06-06 06:14 J	-2535774.49	-2535774.24	-2535773.98	0.0089	0.0018
Neptune	-11655-06-08 12:14 J	-2535407.22	-2535406.99	-2535406.73	0.0089	0.0015
Neptune	-11654-06-11 03:21 J	-2535039.54	-2535039.36	-2535039.15	0.0089	0.0059
Jupiter	-11651-11-18 07:26 J	-2533783.33	-2533783.19	-2533783.03	0.0502	0.0372
Uranus	-11648-11-25 14:24 J	-2532679.95	-2532679.90	-2532679.83	0.0146	0.0142
Uranus	-11647-11-30 19:26 J	-2532309.87	-2532309.69	-2532309.48	0.0146	0.0091
Uranus	-11646-12-05 23:45 J	-2531939.77	-2531939.51	-2531939.25	0.0146	0.0025
Uranus	-11645-12-10 01:40 J	-2531569.66	-2531569.43	-2531569.19	0.0146	0.0044
Uranus	-11644-12-15 08:38 J	-2531199.32	-2531199.14	-2531198.92	0.0145	0.0093
Saturn	-11631-12-06 22:19 J	-2526459.71	-2526459.57	-2526459.41	0.0259	0.0203
Pluto	-11629-10-08 14:24 J	-2525788.14	-2525787.90	-2525787.64	0.0067	0.0011
Jupiter	-11621-05-14 19:55 J	-2523012.83	-2523012.67	-2523012.51	0.0522	0.0373
Saturn	-11615-06-13 19:11 J	-2520791.91	-2520791.70	-2520791.47	0.0304	0.0108
Jupiter	-11609-05-19 12:57 J	-2518625.20	-2518624.96	-2518624.72	0.0523	0.0073
Uranus	-11605-05-31 18:43 J	-2517151.79	-2517151.72	-2517151.61	0.0133	0.0124
Uranus	-11604-06-05 06:43 J	-2516782.41	-2516782.22	-2516782.01	0.0133	0.0080
Uranus	-11603-06-09 04:48 J	-2516413.53	-2516413.30	-2516413.04	0.0133	0.0039
Uranus	-11602-06-13 16:33 J	-2516044.05	-2516043.81	-2516043.56	0.0133	0.0018
Uranus	-11601-06-16 14:24 J	-2515675.12	-2515674.90	-2515674.65	0.0133	0.0053
Saturn	-11601-12-12 09:21 J	-2515496.34	-2515496.11	-2515495.87	0.0258	0.0091
Uranus	-11600-06-21 01:40 J	-2515305.54	-2515305.43	-2515305.28	0.0133	0.0112
Jupiter	-11597-05-24 11:45 J	-2514237.11	-2514237.01	-2514236.90	0.0524	0.0456
Mars	-11594-10-20 11:16 J	-2512993.11	-2512993.03	-2512992.96	0.1648	0.1488
Jupiter	-11592-11-08 18:00 J	-2512242.91	-2512242.75	-2512242.57	0.0503	0.0362

Jupiter	-11580-11-13 02:52 J	-2507855.61	-2507855.38	-2507855.16	0.0502	0.0035
Neptune	-11576-11-29 03:50 J	-2506378.51	-2506378.34	-2506378.17	0.0088	0.0065
Neptune	-11575-12-01 18:43 J	-2506010.98	-2506010.72	-2506010.45	0.0088	0.0020
Neptune	-11574-12-04 05:31 J	-2505643.52	-2505643.27	-2505643.02	0.0088	0.0011
Neptune	-11573-12-05 15:21 J	-2505276.04	-2505275.86	-2505275.62	0.0088	0.0055
Saturn	-11572-12-07 20:52 J	-2504908.81	-2504908.63	-2504908.43	0.0259	0.0161
Neptune	-11572-12-08 07:26 J	-2504908.24	-2504908.19	-2504908.10	0.0088	0.0085
Jupiter	-11568-11-17 21:35 J	-2503467.78	-2503467.60	-2503467.43	0.0501	0.0328
Uranus	-11563-12-01 09:07 J	-2501628.32	-2501628.12	-2501627.90	0.0146	0.0077
Uranus	-11562-12-06 12:14 J	-2501258.25	-2501257.99	-2501257.72	0.0146	0.0018
Uranus	-11561-12-10 15:21 J	-2500888.08	-2500887.86	-2500887.61	0.0146	0.0040
Uranus	-11560-12-15 21:35 J	-2500517.76	-2500517.60	-2500517.42	0.0145	0.0112
Saturn	-11556-06-14 15:35 J	-2499241.08	-2499240.85	-2499240.61	0.0304	0.0058
Pluto	-11542-04-13 14:09 J	-2494190.11	-2494189.91	-2494189.67	0.0078	0.0040
Saturn	-11542-12-14 04:33 J	-2493945.52	-2493945.31	-2493945.11	0.0258	0.0136
Jupiter	-11538-05-14 22:48 J	-2492697.70	-2492697.55	-2492697.41	0.0522	0.0414
Jupiter	-11526-05-20 01:40 J	-2488309.66	-2488309.43	-2488309.21	0.0523	0.0028
Uranus	-11521-06-01 04:33 J	-2486470.37	-2486470.31	-2486470.20	0.0132	0.0125
Uranus	-11520-06-05 16:19 J	-2486101.00	-2486100.82	-2486100.60	0.0133	0.0078
Uranus	-11519-06-09 14:24 J	-2485732.15	-2485731.90	-2485731.65	0.0133	0.0028
Uranus	-11518-06-14 01:55 J	-2485362.67	-2485362.42	-2485362.17	0.0133	0.0010
Uranus	-11517-06-16 23:16 J	-2484993.73	-2484993.53	-2484993.30	0.0133	0.0069
Uranus	-11516-06-21 11:16 J	-2484624.18	-2484624.03	-2484623.86	0.0133	0.0101
Jupiter	-11514-05-25 04:33 J	-2483921.45	-2483921.31	-2483921.16	0.0525	0.0418
Saturn	-11513-12-08 15:07 J	-2483358.08	-2483357.87	-2483357.63	0.0260	0.0118
Jupiter	-11509-11-08 01:55 J	-2481927.55	-2481927.42	-2481927.29	0.0503	0.0410
Mars	-11508-04-21 13:55 J	-2481763.13	-2481762.92	-2481762.71	0.1880	0.0363
Saturn	-11497-06-15 07:55 J	-2477690.42	-2477690.17	-2477689.92	0.0304	0.0004
Jupiter	-11497-11-12 20:09 J	-2477539.90	-2477539.66	-2477539.43	0.0502	0.0080
Neptune	-11493-06-03 05:16 J	-2476241.38	-2476241.28	-2476241.16	0.0089	0.0080

Neptune	-11492-06-05 11:45 J	-2475874.24	-2475874.01	-2475873.78	0.0089	0.0035
Neptune	-11491-06-08 01:55 J	-2475506.69	-2475506.42	-2475506.16	0.0089	0.0005
Neptune	-11490-06-10 12:43 J	-2475139.19	-2475138.97	-2475138.75	0.0089	0.0040
Neptune	-11489-06-11 21:50 J	-2474771.72	-2474771.59	-2474771.40	0.0089	0.0070
Jupiter	-11485-11-17 02:52 J	-2473152.56	-2473152.38	-2473152.19	0.0502	0.0294
Saturn	-11483-12-15 04:04 J	-2472394.49	-2472394.33	-2472394.16	0.0258	0.0184
Uranus	-11480-11-26 12:43 J	-2471317.07	-2471316.97	-2471316.83	0.0146	0.0131
Uranus	-11479-12-01 20:09 J	-2470946.85	-2470946.66	-2470946.44	0.0146	0.0080
Uranus	-11478-12-06 22:19 J	-2470576.83	-2470576.57	-2470576.31	0.0146	0.0013
Uranus	-11477-12-11 02:52 J	-2470206.61	-2470206.38	-2470206.15	0.0146	0.0054
Uranus	-11476-12-16 08:09 J	-2469836.34	-2469836.16	-2469835.97	0.0145	0.0103
Mars	-11468-10-16 11:02 J	-2466975.23	-2466975.04	-2466974.86	0.1641	0.0607
Jupiter	-11455-05-14 12:28 J	-2462382.09	-2462381.98	-2462381.86	0.0523	0.0447
Saturn	-11454-12-10 06:57 J	-2461807.45	-2461807.21	-2461806.96	0.0260	0.0070
Jupiter	-11443-05-19 14:24 J	-2457994.14	-2457993.90	-2457993.66	0.0523	0.0021
Saturn	-11438-06-17 00:57 J	-2456139.70	-2456139.46	-2456139.21	0.0303	0.0069
Uranus	-11437-06-01 14:38 J	-2455789.01	-2455788.89	-2455788.75	0.0132	0.0114
Uranus	-11436-06-06 02:24 J	-2455419.59	-2455419.40	-2455419.17	0.0132	0.0073
Uranus	-11435-06-10 00:14 J	-2455050.73	-2455050.49	-2455050.24	0.0133	0.0030
Uranus	-11434-06-14 12:14 J	-2454681.24	-2454680.99	-2454680.74	0.0133	0.0025
Uranus	-11433-06-17 09:50 J	-2454312.31	-2454312.09	-2454311.86	0.0133	0.0059
Uranus	-11432-06-21 21:35 J	-2453942.70	-2453942.60	-2453942.48	0.0133	0.0119
Jupiter	-11431-05-24 08:24 J	-2453606.30	-2453606.15	-2453605.98	0.0524	0.0366
Jupiter	-11426-11-08 17:31 J	-2451611.85	-2451611.77	-2451611.66	0.0503	0.0460
Saturn	-11424-12-16 02:38 J	-2450843.48	-2450843.39	-2450843.28	0.0259	0.0236
Jupiter	-11414-11-13 00:28 J	-2447224.70	-2447224.48	-2447224.25	0.0503	0.0124
Neptune	-11412-11-28 15:35 J	-2446477.95	-2446477.85	-2446477.69	0.0088	0.0078
Neptune	-11411-12-01 03:35 J	-2446110.55	-2446110.35	-2446110.12	0.0088	0.0045
Neptune	-11410-12-03 12:57 J	-2445743.23	-2445742.96	-2445742.69	0.0088	0.0004
Neptune	-11409-12-05 04:48 J	-2445375.53	-2445375.30	-2445375.05	0.0088	0.0029

Neptune -11408-12-07 10:33 J -2445008.20 -2445008.06 -2445007.89 0.0088 0.0071
 Jupiter -11402-11-17 19:11 J -2442836.89 -2442836.70 -2442836.49 0.0501 0.0255
 Uranus -11396-11-26 19:40 J -2440635.72 -2440635.68 -2440635.59 0.0146 0.0142
 Uranus -11395-12-02 04:48 J -2440265.51 -2440265.30 -2440265.07 0.0146 0.0067
 Saturn -11395-12-11 03:35 J -2440256.60 -2440256.35 -2440256.10 0.0260 0.0017
 Uranus -11394-12-07 05:45 J -2439895.53 -2439895.26 -2439895.00 0.0146 0.0010
 Uranus -11393-12-11 11:31 J -2439525.24 -2439525.02 -2439524.77 0.0146 0.0049
 Uranus -11392-12-16 15:50 J -2439154.99 -2439154.84 -2439154.69 0.0145 0.0120
 Mars -11389-10-18 20:52 J -2438117.78 -2438117.63 -2438117.49 0.1643 0.1101
 Pluto -11381-10-09 23:02 J -2435204.79 -2435204.54 -2435204.28 0.0067 0.0008
 Saturn -11379-06-18 03:50 J -2434588.54 -2434588.34 -2434588.13 0.0303 0.0147
 Jupiter -11372-05-13 21:21 J -2432066.69 -2432066.61 -2432066.53 0.0522 0.0491
 Jupiter -11360-05-18 13:40 J -2427679.16 -2427678.93 -2427678.71 0.0523 0.0089
 Uranus -11353-06-02 00:43 J -2425107.58 -2425107.47 -2425107.34 0.0132 0.0116
 Uranus -11352-06-06 12:14 J -2424738.20 -2424737.99 -2424737.76 0.0132 0.0068
 Uranus -11351-06-10 10:04 J -2424369.33 -2424369.08 -2424368.83 0.0132 0.0021
 Saturn -11350-06-12 01:11 J -2424002.57 -2424002.45 -2424002.31 0.0302 0.0257
 Uranus -11350-06-14 21:35 J -2423999.85 -2423999.60 -2423999.35 0.0133 0.0018
 Uranus -11349-06-17 18:43 J -2423630.91 -2423630.72 -2423630.50 0.0133 0.0076
 Jupiter -11348-05-23 19:11 J -2423290.89 -2423290.70 -2423290.50 0.0524 0.0296
 Uranus -11348-06-22 06:43 J -2423261.36 -2423261.22 -2423261.07 0.0133 0.0107
 Saturn -11336-12-12 08:24 J -2418705.38 -2418705.15 -2418704.91 0.0260 0.0046
 Jupiter -11331-11-12 14:38 J -2416909.10 -2416908.89 -2416908.67 0.0502 0.0179
 Neptune -11328-06-04 23:31 J -2415973.70 -2415973.52 -2415973.31 0.0089 0.0061
 Neptune -11327-06-07 11:31 J -2415606.25 -2415606.02 -2415605.76 0.0089 0.0020
 Neptune -11326-06-09 20:24 J -2415238.91 -2415238.65 -2415238.39 0.0089 0.0014
 Neptune -11325-06-11 12:00 J -2414871.17 -2414871.00 -2414870.79 0.0089 0.0057
 Saturn -11320-06-19 18:00 J -2413036.89 -2413036.75 -2413036.61 0.0303 0.0244
 Jupiter -11319-11-16 19:11 J -2412521.92 -2412521.70 -2412521.48 0.0502 0.0194
 Uranus -11312-11-27 01:11 J -2409954.57 -2409954.45 -2409954.30 0.0146 0.0123

Uranus	-11311-12-02 10:33 J	-2409584.26	-2409584.06	-2409583.83	0.0146	0.0075
Uranus	-11310-12-07 10:33 J	-2409214.33	-2409214.06	-2409213.80	0.0146	0.0005
Uranus	-11309-12-11 18:00 J	-2408843.96	-2408843.75	-2408843.51	0.0146	0.0059
Uranus	-11308-12-16 20:52 J	-2408473.80	-2408473.63	-2408473.45	0.0145	0.0109
Saturn	-11307-12-07 17:16 J	-2408117.93	-2408117.78	-2408117.61	0.0261	0.0203
Pluto	-11294-04-15 01:11 J	-2403606.69	-2403606.45	-2403606.17	0.0078	0.0017
Saturn	-11291-06-13 10:04 J	-2402451.30	-2402451.08	-2402450.86	0.0302	0.0154
Jupiter	-11277-05-17 20:38 J	-2397363.87	-2397363.64	-2397363.42	0.0524	0.0173
Saturn	-11277-12-13 17:31 J	-2397153.98	-2397153.77	-2397153.55	0.0260	0.0115
Uranus	-11269-06-02 10:48 J	-2394426.19	-2394426.05	-2394425.89	0.0132	0.0104
Uranus	-11268-06-06 22:19 J	-2394056.78	-2394056.57	-2394056.34	0.0132	0.0064
Uranus	-11267-06-10 20:24 J	-2393687.89	-2393687.65	-2393687.40	0.0132	0.0021
Uranus	-11266-06-15 07:55 J	-2393318.41	-2393318.17	-2393317.92	0.0133	0.0033
Jupiter	-11265-05-22 12:57 J	-2392976.17	-2392975.96	-2392975.74	0.0524	0.0212
Uranus	-11265-06-18 06:14 J	-2392949.45	-2392949.24	-2392949.03	0.0133	0.0067
Uranus	-11264-06-22 17:45 J	-2392579.84	-2392579.76	-2392579.68	0.0133	0.0125
Mars	-11263-10-15 17:45 J	-2392099.89	-2392099.76	-2392099.63	0.1636	0.1075
Jupiter	-11248-11-11 10:33 J	-2386594.26	-2386594.06	-2386593.85	0.0503	0.0252
Saturn	-11248-12-08 19:40 J	-2386566.89	-2386566.68	-2386566.45	0.0261	0.0131
Neptune	-11247-11-30 08:38 J	-2386210.30	-2386210.14	-2386209.95	0.0088	0.0067
Neptune	-11246-12-03 02:09 J	-2385842.65	-2385842.41	-2385842.16	0.0088	0.0021
Neptune	-11245-12-04 07:26 J	-2385475.44	-2385475.19	-2385474.92	0.0088	0.0008
Neptune	-11244-12-07 02:24 J	-2385107.60	-2385107.40	-2385107.19	0.0088	0.0053
Neptune	-11243-12-09 06:57 J	-2384740.27	-2384740.21	-2384740.09	0.0088	0.0083
Jupiter	-11236-11-16 02:52 J	-2382206.60	-2382206.38	-2382206.16	0.0502	0.0140
Saturn	-11232-06-15 02:38 J	-2380899.63	-2380899.39	-2380899.15	0.0302	0.0038
Uranus	-11228-11-27 08:24 J	-2379273.24	-2379273.15	-2379273.05	0.0146	0.0135
Uranus	-11227-12-02 18:57 J	-2378902.94	-2378902.71	-2378902.48	0.0146	0.0059
Uranus	-11226-12-07 17:31 J	-2378533.03	-2378532.77	-2378532.50	0.0146	0.0006
Uranus	-11225-12-12 02:24 J	-2378162.62	-2378162.40	-2378162.16	0.0146	0.0056

Mars	-11224-04-20 03:07 J	-2378033.42	-2378033.37	-2378033.31	0.1886	0.1810
Uranus	-11224-12-17 03:21 J	-2377792.47	-2377792.36	-2377792.20	0.0145	0.0125
Saturn	-11218-12-16 00:00 J	-2375602.66	-2375602.50	-2375602.32	0.0260	0.0192
Jupiter	-11194-05-17 13:26 J	-2367049.14	-2367048.94	-2367048.74	0.0523	0.0261
Saturn	-11189-12-10 06:28 J	-2365015.47	-2365015.23	-2365015.00	0.0261	0.0052
Uranus	-11185-06-02 21:21 J	-2363744.73	-2363744.61	-2363744.45	0.0132	0.0109
Uranus	-11184-06-07 08:24 J	-2363375.37	-2363375.15	-2363374.91	0.0132	0.0059
Mars	-11184-10-17 13:11 J	-2363243.12	-2363242.95	-2363242.77	0.1638	0.0193
Uranus	-11183-06-11 07:11 J	-2363006.45	-2363006.20	-2363005.95	0.0132	0.0013
Jupiter	-11182-05-22 16:04 J	-2362661.05	-2362660.83	-2362660.60	0.0524	0.0118
Uranus	-11182-06-15 18:00 J	-2362636.99	-2362636.75	-2362636.49	0.0133	0.0027
Uranus	-11181-06-18 16:19 J	-2362268.00	-2362267.82	-2362267.62	0.0133	0.0083
Uranus	-11180-06-23 03:07 J	-2361898.47	-2361898.37	-2361898.22	0.0133	0.0115
Saturn	-11173-06-17 03:07 J	-2359347.59	-2359347.37	-2359347.14	0.0302	0.0089
Jupiter	-11165-11-10 17:31 J	-2356278.94	-2356278.77	-2356278.60	0.0502	0.0319
Neptune	-11164-06-04 08:52 J	-2356073.19	-2356073.13	-2356073.01	0.0089	0.0083
Neptune	-11163-06-06 17:16 J	-2355706.02	-2355705.78	-2355705.54	0.0089	0.0036
Neptune	-11162-06-09 10:19 J	-2355338.31	-2355338.07	-2355337.81	0.0089	0.0008
Neptune	-11161-06-10 15:07 J	-2354971.09	-2354970.87	-2354970.63	0.0089	0.0038
Neptune	-11160-06-13 09:07 J	-2354603.27	-2354603.12	-2354602.93	0.0089	0.0067
Jupiter	-11153-11-15 05:02 J	-2351891.53	-2351891.29	-2351891.05	0.0502	0.0075
Saturn	-11144-06-11 05:02 J	-2348761.35	-2348761.29	-2348761.20	0.0301	0.0285
Uranus	-11144-11-27 18:43 J	-2348591.86	-2348591.72	-2348591.54	0.0146	0.0115
Uranus	-11143-12-03 05:45 J	-2348221.48	-2348221.26	-2348221.03	0.0146	0.0067
Uranus	-11142-12-08 03:50 J	-2347851.60	-2347851.34	-2347851.08	0.0146	0.0004
Jupiter	-11141-11-19 09:50 J	-2347504.18	-2347504.09	-2347504.00	0.0501	0.0459
Uranus	-11141-12-12 13:40 J	-2347481.15	-2347480.93	-2347480.71	0.0146	0.0065
Uranus	-11140-12-17 13:40 J	-2347111.07	-2347110.93	-2347110.76	0.0146	0.0117
Pluto	-11133-10-12 01:11 J	-2344620.65	-2344620.45	-2344620.21	0.0067	0.0035
Saturn	-11130-12-12 21:07 J	-2343463.86	-2343463.62	-2343463.38	0.0260	0.0032

Saturn	-11114-06-20 07:26 J	-2337795.33	-2337795.19	-2337795.02	0.0303	0.0224
Jupiter	-11111-05-16 13:55 J	-2336734.07	-2336733.92	-2336733.75	0.0522	0.0370
Mars	-11105-10-19 14:52 J	-2334385.98	-2334385.88	-2334385.79	0.1639	0.1419
Uranus	-11101-06-03 09:07 J	-2333063.28	-2333063.12	-2333062.94	0.0132	0.0095
Saturn	-11101-12-07 06:14 J	-2332876.38	-2332876.24	-2332876.09	0.0261	0.0211
Uranus	-11100-06-07 19:40 J	-2332693.91	-2332693.68	-2332693.44	0.0132	0.0056
Jupiter	-11099-05-21 04:33 J	-2332346.55	-2332346.31	-2332346.07	0.0524	0.0009
Uranus	-11099-06-11 19:11 J	-2332324.94	-2332324.70	-2332324.45	0.0133	0.0011
Uranus	-11098-06-16 05:45 J	-2331955.50	-2331955.26	-2331955.01	0.0133	0.0041
Uranus	-11097-06-19 05:02 J	-2331586.48	-2331586.29	-2331586.08	0.0133	0.0076
Uranus	-11096-06-23 15:50 J	-2331216.84	-2331216.84	-2331216.84	0.0133	0.0133
Jupiter	-11087-05-26 06:14 J	-2327958.35	-2327958.24	-2327958.14	0.0524	0.0461
Saturn	-11085-06-13 01:11 J	-2327209.66	-2327209.45	-2327209.23	0.0301	0.0155
Neptune	-11083-11-29 21:35 J	-2326309.68	-2326309.60	-2326309.47	0.0088	0.0081
Jupiter	-11082-11-10 13:40 J	-2325964.07	-2325963.93	-2325963.78	0.0503	0.0403
Neptune	-11082-12-02 02:38 J	-2325942.60	-2325942.39	-2325942.16	0.0088	0.0047
Neptune	-11081-12-03 21:35 J	-2325574.86	-2325574.60	-2325574.33	0.0088	0.0006
Neptune	-11080-12-06 02:52 J	-2325207.61	-2325207.38	-2325207.13	0.0088	0.0026
Neptune	-11079-12-08 18:43 J	-2324839.86	-2324839.72	-2324839.52	0.0088	0.0068
Saturn	-11071-12-14 09:50 J	-2321912.31	-2321912.09	-2321911.87	0.0260	0.0114
Jupiter	-11070-11-14 22:04 J	-2321576.81	-2321576.58	-2321576.36	0.0502	0.0015
Uranus	-11060-11-28 08:38 J	-2317910.26	-2317910.14	-2317909.99	0.0146	0.0123
Uranus	-11059-12-03 19:55 J	-2317539.90	-2317539.67	-2317539.42	0.0146	0.0047
Jupiter	-11058-11-19 16:04 J	-2317188.98	-2317188.83	-2317188.68	0.0502	0.0384
Uranus	-11058-12-08 18:00 J	-2317170.01	-2317169.75	-2317169.49	0.0146	0.0005
Uranus	-11057-12-13 04:19 J	-2316799.54	-2316799.32	-2316799.09	0.0146	0.0067
Uranus	-11056-12-18 03:07 J	-2316429.45	-2316429.37	-2316429.25	0.0146	0.0135
Pluto	-11046-04-17 05:02 J	-2313022.54	-2313022.29	-2313022.03	0.0077	0.0018
Saturn	-11042-12-09 14:24 J	-2311325.11	-2311324.90	-2311324.68	0.0261	0.0131
Jupiter	-11028-05-15 04:04 J	-2306419.43	-2306419.33	-2306419.22	0.0522	0.0470

Saturn	-11026-06-15 23:02 J	-2305657.78	-2305657.54	-2305657.30	0.0302	0.0033
Uranus	-11018-05-31 21:35 J	-2302750.63	-2302750.60	-2302750.56	0.0132	0.0131
Uranus	-11017-06-03 21:50 J	-2302381.74	-2302381.59	-2302381.41	0.0132	0.0098
Jupiter	-11016-05-20 08:09 J	-2302031.38	-2302031.16	-2302030.94	0.0523	0.0071
Uranus	-11016-06-08 07:40 J	-2302012.42	-2302012.18	-2302011.93	0.0132	0.0048
Uranus	-11015-06-12 07:55 J	-2301643.42	-2301643.17	-2301642.93	0.0132	0.0004
Uranus	-11014-06-16 17:16 J	-2301274.02	-2301273.78	-2301273.53	0.0133	0.0037
Uranus	-11013-06-19 16:33 J	-2300904.97	-2300904.81	-2300904.61	0.0133	0.0092
Uranus	-11012-06-24 02:09 J	-2300535.48	-2300535.41	-2300535.29	0.0133	0.0123
Saturn	-11012-12-15 17:02 J	-2300360.95	-2300360.79	-2300360.61	0.0260	0.0194
Jupiter	-11004-05-25 05:45 J	-2297643.42	-2297643.26	-2297643.09	0.0524	0.0376

11TH MILLENNIUM BCE

This is a list of transits of Moon in the 11th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Neptune	-10999-06-06 06:43 J	-2295805.37	-2295805.22	-2295805.01	0.0089	0.0063		
Jupiter	-10999-11-09 11:16 J	-2295649.08	-2295649.03	-2295648.96	0.0503	0.0482		
Neptune	-10998-06-08 12:00 J	-2295438.24	-2295438.00	-2295437.75	0.0089	0.0023		
Neptune	-10997-06-10 06:14 J	-2295070.49	-2295070.24	-2295069.98	0.0089	0.0011		
Neptune	-10996-06-12 11:31 J	-2294703.22	-2294703.02	-2294702.81	0.0089	0.0052		
Neptune	-10995-06-15 02:52 J	-2294335.43	-2294335.38	-2294335.30	0.0089	0.0086		
Jupiter	-10987-11-14 07:11 J	-2291261.44	-2291261.20	-2291260.97	0.0503	0.0072		
Saturn	-10983-12-11 01:55 J	-2289773.65	-2289773.42	-2289773.18	0.0261	0.0052		

Mars	-10979-10-17 01:55 J	-2288367.60	-2288367.42	-2288367.24	0.1633	0.0587
Uranus	-10976-11-28 22:48 J	-2287228.72	-2287228.55	-2287228.36	0.0146	0.0101
Jupiter	-10975-11-18 12:00 J	-2286874.17	-2286874.00	-2286873.81	0.0502	0.0317
Uranus	-10975-12-04 10:04 J	-2286858.31	-2286858.08	-2286857.83	0.0146	0.0053
Uranus	-10974-12-09 07:40 J	-2286488.43	-2286488.18	-2286487.92	0.0146	0.0018
Uranus	-10973-12-13 18:43 J	-2286117.93	-2286117.72	-2286117.51	0.0146	0.0077
Uranus	-10972-12-18 17:02 J	-2285747.89	-2285747.79	-2285747.65	0.0146	0.0129
Saturn	-10967-06-17 18:57 J	-2284105.94	-2284105.71	-2284105.48	0.0302	0.0078
Jupiter	-10933-05-19 06:28 J	-2271716.46	-2271716.23	-2271715.99	0.0523	0.0154
Uranus	-10933-06-04 10:19 J	-2271700.24	-2271700.07	-2271699.86	0.0132	0.0084
Uranus	-10932-06-08 19:40 J	-2271330.93	-2271330.68	-2271330.44	0.0132	0.0046
Uranus	-10931-06-12 20:38 J	-2270961.89	-2270961.64	-2270961.39	0.0132	0.0000
Uranus	-10930-06-17 05:02 J	-2270592.51	-2270592.29	-2270592.03	0.0133	0.0050
Uranus	-10929-06-20 06:14 J	-2270223.43	-2270223.24	-2270223.05	0.0133	0.0085
Saturn	-10924-12-12 13:11 J	-2268222.20	-2268221.95	-2268221.71	0.0260	0.0022
Jupiter	-10921-05-23 23:31 J	-2267328.71	-2267328.52	-2267328.33	0.0524	0.0291
Neptune	-10918-12-01 16:04 J	-2266041.96	-2266041.83	-2266041.64	0.0088	0.0071
Neptune	-10917-12-02 22:33 J	-2265674.78	-2265674.56	-2265674.30	0.0088	0.0026
Neptune	-10916-12-05 14:24 J	-2265307.16	-2265306.90	-2265306.63	0.0088	0.0004
Neptune	-10915-12-08 00:14 J	-2264939.68	-2264939.49	-2264939.26	0.0088	0.0049
Neptune	-10914-12-10 10:48 J	-2264572.15	-2264572.05	-2264571.89	0.0088	0.0078
Saturn	-10908-06-19 09:35 J	-2262554.29	-2262554.10	-2262553.91	0.0302	0.0177
Jupiter	-10904-11-13 00:00 J	-2260946.72	-2260946.50	-2260946.28	0.0503	0.0149
Mars	-10900-10-19 03:50 J	-2259510.52	-2259510.34	-2259510.16	0.1635	0.0312
Saturn	-10895-12-07 15:50 J	-2257634.95	-2257634.84	-2257634.71	0.0261	0.0228
Jupiter	-10892-11-17 19:40 J	-2256558.88	-2256558.68	-2256558.48	0.0502	0.0241
Uranus	-10892-11-29 11:02 J	-2256547.20	-2256547.04	-2256546.87	0.0146	0.0110
Uranus	-10891-12-04 22:48 J	-2256176.79	-2256176.55	-2256176.30	0.0146	0.0034
Uranus	-10890-12-09 20:24 J	-2255806.90	-2255806.65	-2255806.39	0.0146	0.0017
Uranus	-10889-12-14 07:40 J	-2255436.38	-2255436.18	-2255435.96	0.0146	0.0079

Uranus	-10888-12-19 05:45 J	-2255066.27	-2255066.26	-2255066.23	0.0146	0.0145
Pluto	-10886-10-13 09:50 J	-2254403.30	-2254403.09	-2254402.87	0.0066	0.0035
Saturn	-10879-06-12 15:50 J	-2251968.99	-2251968.84	-2251968.68	0.0302	0.0231
Saturn	-10865-12-13 16:33 J	-2246671.05	-2246670.81	-2246670.57	0.0260	0.0089
Mars	-10861-04-22 22:48 J	-2245444.71	-2245444.55	-2245444.39	0.1888	0.1131
Jupiter	-10850-05-19 07:26 J	-2241401.39	-2241401.19	-2241400.98	0.0523	0.0220
Uranus	-10850-06-01 21:21 J	-2241387.71	-2241387.61	-2241387.48	0.0132	0.0119
Uranus	-10849-06-05 00:00 J	-2241018.68	-2241018.50	-2241018.32	0.0132	0.0088
Saturn	-10849-06-20 13:26 J	-2241003.06	-2241002.94	-2241002.81	0.0303	0.0260
Uranus	-10848-06-09 07:40 J	-2240649.43	-2240649.18	-2240648.93	0.0132	0.0036
Uranus	-10847-06-13 09:07 J	-2240280.36	-2240280.12	-2240279.87	0.0132	0.0006
Uranus	-10846-06-17 16:33 J	-2239911.06	-2239910.81	-2239910.57	0.0132	0.0047
Uranus	-10845-06-20 17:16 J	-2239541.93	-2239541.78	-2239541.61	0.0133	0.0100
Uranus	-10844-06-25 00:28 J	-2239172.50	-2239172.48	-2239172.42	0.0133	0.0131
Jupiter	-10838-05-24 15:21 J	-2237013.06	-2237012.86	-2237012.65	0.0524	0.0260
Saturn	-10836-12-08 18:57 J	-2236083.90	-2236083.71	-2236083.53	0.0261	0.0165
Neptune	-10835-06-05 06:43 J	-2235905.24	-2235905.22	-2235905.13	0.0089	0.0087
Neptune	-10834-06-08 01:11 J	-2235537.67	-2235537.45	-2235537.20	0.0089	0.0040
Neptune	-10833-06-09 07:40 J	-2235170.42	-2235170.18	-2235169.92	0.0089	0.0012
Neptune	-10832-06-11 22:33 J	-2234802.79	-2234802.56	-2234802.30	0.0089	0.0034
Neptune	-10831-06-14 09:07 J	-2234435.29	-2234435.12	-2234434.94	0.0089	0.0063
Jupiter	-10821-11-12 14:52 J	-2230631.09	-2230630.88	-2230630.66	0.0503	0.0193
Saturn	-10820-06-13 20:52 J	-2230417.83	-2230417.63	-2230417.42	0.0302	0.0154
Jupiter	-10809-11-16 23:02 J	-2226243.76	-2226243.54	-2226243.31	0.0502	0.0191
Uranus	-10808-11-29 19:55 J	-2225865.85	-2225865.67	-2225865.46	0.0146	0.0091
Uranus	-10807-12-05 07:26 J	-2225495.44	-2225495.19	-2225494.95	0.0146	0.0044
Uranus	-10806-12-10 04:33 J	-2225125.55	-2225125.31	-2225125.05	0.0146	0.0029
Saturn	-10806-12-15 12:14 J	-2225120.19	-2225119.99	-2225119.77	0.0259	0.0151
Uranus	-10805-12-14 16:19 J	-2224755.02	-2224754.82	-2224754.61	0.0146	0.0085
Uranus	-10804-12-19 13:55 J	-2224384.98	-2224384.92	-2224384.82	0.0146	0.0138

Saturn	-10777-12-09 22:33 J	-2214532.78	-2214532.56	-2214532.34	0.0261	0.0107
Jupiter	-10767-05-19 00:28 J	-2211085.69	-2211085.48	-2211085.27	0.0523	0.0249
Uranus	-10766-06-02 09:35 J	-2210706.17	-2210706.10	-2210706.01	0.0132	0.0125
Uranus	-10765-06-05 12:28 J	-2210337.17	-2210336.98	-2210336.76	0.0132	0.0072
Uranus	-10764-06-09 19:11 J	-2209967.95	-2209967.70	-2209967.44	0.0132	0.0036
Uranus	-10763-06-13 22:04 J	-2209598.82	-2209598.58	-2209598.34	0.0132	0.0011
Uranus	-10762-06-18 04:19 J	-2209229.55	-2209229.32	-2209229.08	0.0132	0.0058
Saturn	-10761-06-14 22:04 J	-2208866.81	-2208866.58	-2208866.36	0.0302	0.0090
Uranus	-10761-06-21 06:28 J	-2208860.38	-2208860.23	-2208860.04	0.0133	0.0095
Jupiter	-10755-05-23 15:50 J	-2206698.06	-2206697.84	-2206697.63	0.0523	0.0211
Neptune	-10754-11-30 17:45 J	-2206141.81	-2206141.76	-2206141.69	0.0088	0.0086
Neptune	-10753-12-02 07:26 J	-2205774.40	-2205774.19	-2205773.96	0.0088	0.0051
Neptune	-10752-12-04 18:43 J	-2205406.96	-2205406.72	-2205406.46	0.0088	0.0012
Neptune	-10751-12-07 04:19 J	-2205039.57	-2205039.32	-2205039.05	0.0088	0.0022
Neptune	-10750-12-09 20:38 J	-2204671.81	-2204671.64	-2204671.45	0.0088	0.0061
Saturn	-10747-12-16 08:38 J	-2203569.27	-2203569.14	-2203568.98	0.0259	0.0206
Jupiter	-10738-11-12 21:21 J	-2200315.82	-2200315.61	-2200315.39	0.0503	0.0220
Jupiter	-10726-11-17 10:19 J	-2195928.28	-2195928.07	-2195927.85	0.0502	0.0140
Uranus	-10724-11-30 04:04 J	-2195184.50	-2195184.33	-2195184.14	0.0146	0.0101
Uranus	-10723-12-05 15:07 J	-2194814.12	-2194813.87	-2194813.61	0.0146	0.0025
Uranus	-10722-12-10 12:57 J	-2194444.21	-2194443.96	-2194443.71	0.0146	0.0023
Uranus	-10721-12-15 00:14 J	-2194073.67	-2194073.49	-2194073.27	0.0146	0.0087
Saturn	-10718-12-11 21:50 J	-2192981.83	-2192981.59	-2192981.35	0.0260	0.0057
Jupiter	-10714-11-21 23:45 J	-2191540.60	-2191540.51	-2191540.41	0.0501	0.0463
Saturn	-10702-06-16 13:55 J	-2187316.17	-2187315.92	-2187315.67	0.0302	0.0036
Mars	-10695-10-17 20:38 J	-2184635.84	-2184635.64	-2184635.45	0.1631	0.0223
Saturn	-10688-12-17 07:55 J	-2182018.19	-2182018.17	-2182018.12	0.0259	0.0257
Jupiter	-10684-05-18 00:57 J	-2180770.66	-2180770.46	-2180770.27	0.0522	0.0299
Uranus	-10682-06-02 21:50 J	-2180024.73	-2180024.59	-2180024.43	0.0132	0.0107
Uranus	-10681-06-06 01:55 J	-2179655.60	-2179655.42	-2179655.20	0.0132	0.0077

Uranus	-10680-06-10 07:26 J	-2179286.44	-2179286.19	-2179285.92	0.0132	0.0025
Uranus	-10679-06-14 11:02 J	-2178917.28	-2178917.04	-2178916.80	0.0132	0.0015
Uranus	-10678-06-18 15:50 J	-2178548.07	-2178547.84	-2178547.60	0.0132	0.0057
Uranus	-10677-06-21 19:11 J	-2178178.84	-2178178.70	-2178178.56	0.0133	0.0108
Jupiter	-10672-05-23 08:52 J	-2176382.34	-2176382.13	-2176381.91	0.0523	0.0175
Neptune	-10670-06-07 02:24 J	-2175637.54	-2175637.40	-2175637.21	0.0089	0.0067
Neptune	-10669-06-08 16:19 J	-2175270.06	-2175269.82	-2175269.55	0.0089	0.0029
Neptune	-10668-06-11 04:04 J	-2174902.57	-2174902.33	-2174902.08	0.0089	0.0007
Neptune	-10667-06-13 12:57 J	-2174535.17	-2174534.96	-2174534.72	0.0089	0.0045
Neptune	-10666-06-16 04:48 J	-2174167.37	-2174167.30	-2174167.18	0.0089	0.0082
Saturn	-10659-12-12 13:55 J	-2171431.17	-2171430.92	-2171430.66	0.0261	0.0008
Jupiter	-10655-11-12 09:50 J	-2170000.27	-2170000.09	-2169999.89	0.0503	0.0256
Saturn	-10643-06-17 02:09 J	-2165765.66	-2165765.41	-2165765.16	0.0302	0.0015
Jupiter	-10643-11-16 23:16 J	-2165612.76	-2165612.53	-2165612.29	0.0502	0.0100
Uranus	-10640-11-30 13:40 J	-2164503.12	-2164502.93	-2164502.71	0.0147	0.0083
Uranus	-10639-12-05 23:31 J	-2164132.76	-2164132.52	-2164132.26	0.0146	0.0036
Pluto	-10638-10-15 05:02 J	-2163819.54	-2163819.29	-2163819.04	0.0067	0.0017
Uranus	-10638-12-10 21:35 J	-2163762.84	-2163762.60	-2163762.35	0.0146	0.0036
Uranus	-10637-12-15 09:07 J	-2163392.32	-2163392.12	-2163391.92	0.0146	0.0091
Uranus	-10636-12-20 06:00 J	-2163022.25	-2163022.25	-2163022.19	0.0146	0.0145
Jupiter	-10631-11-21 10:04 J	-2161225.20	-2161225.08	-2161224.97	0.0502	0.0429
Mars	-10616-10-20 05:45 J	-2155778.44	-2155778.26	-2155778.08	0.1632	0.0721
Jupiter	-10601-05-17 20:52 J	-2150454.80	-2150454.63	-2150454.45	0.0523	0.0324
Saturn	-10600-12-13 04:04 J	-2149880.57	-2149880.33	-2149880.08	0.0261	0.0042
Uranus	-10598-06-03 10:04 J	-2149343.20	-2149343.08	-2149342.94	0.0132	0.0114
Uranus	-10597-06-06 15:21 J	-2148974.07	-2148973.86	-2148973.63	0.0132	0.0060
Uranus	-10596-06-10 19:55 J	-2148604.93	-2148604.67	-2148604.41	0.0132	0.0026
Uranus	-10595-06-15 00:28 J	-2148235.71	-2148235.48	-2148235.23	0.0132	0.0023
Uranus	-10594-06-19 04:48 J	-2147866.52	-2147866.30	-2147866.07	0.0132	0.0067
Uranus	-10593-06-22 09:07 J	-2147497.25	-2147497.12	-2147496.95	0.0133	0.0105

Jupiter	-10589-05-22 17:02 J	-2146067.03	-2146066.79	-2146066.56	0.0524	0.0140
Neptune	-10589-12-01 14:09 J	-2145874.02	-2145873.91	-2145873.76	0.0088	0.0075
Neptune	-10588-12-03 22:19 J	-2145506.81	-2145506.57	-2145506.31	0.0088	0.0030
Neptune	-10587-12-06 15:07 J	-2145139.12	-2145138.87	-2145138.62	0.0088	0.0003
Neptune	-10586-12-08 19:26 J	-2144771.89	-2144771.69	-2144771.44	0.0088	0.0044
Neptune	-10585-12-10 14:09 J	-2144404.04	-2144403.91	-2144403.73	0.0088	0.0071
Saturn	-10584-06-17 18:57 J	-2144214.94	-2144214.71	-2144214.47	0.0302	0.0065
Mars	-10577-04-22 18:57 J	-2141713.90	-2141713.71	-2141713.51	0.1892	0.0400
Jupiter	-10572-11-11 23:31 J	-2139684.72	-2139684.52	-2139684.32	0.0503	0.0283
Saturn	-10571-12-08 13:11 J	-2139293.06	-2139292.95	-2139292.82	0.0262	0.0225
Jupiter	-10560-11-16 09:35 J	-2135297.33	-2135297.10	-2135296.88	0.0502	0.0067
Uranus	-10557-11-26 03:07 J	-2134191.44	-2134191.37	-2134191.27	0.0147	0.0138
Uranus	-10556-12-01 03:50 J	-2133821.52	-2133821.34	-2133821.13	0.0146	0.0090
Uranus	-10555-12-06 13:11 J	-2133451.21	-2133450.95	-2133450.69	0.0146	0.0015
Uranus	-10554-12-11 12:00 J	-2133081.24	-2133081.00	-2133080.76	0.0146	0.0033
Uranus	-10553-12-15 23:02 J	-2132710.73	-2132710.54	-2132710.34	0.0146	0.0096
Pluto	-10551-04-19 03:35 J	-2132221.60	-2132221.35	-2132221.08	0.0078	0.0011
Jupiter	-10548-11-21 02:24 J	-2130909.54	-2130909.40	-2130909.24	0.0501	0.0385
Saturn	-10541-12-14 00:57 J	-2128329.68	-2128329.46	-2128329.23	0.0261	0.0094
Saturn	-10525-06-18 19:26 J	-2122663.90	-2122663.69	-2122663.47	0.0302	0.0123
Jupiter	-10518-05-18 01:55 J	-2120139.59	-2120139.42	-2120139.24	0.0523	0.0363
Uranus	-10514-06-04 00:00 J	-2118661.67	-2118661.50	-2118661.31	0.0132	0.0095
Uranus	-10513-06-07 06:14 J	-2118292.45	-2118292.24	-2118292.02	0.0132	0.0065
Uranus	-10512-06-11 09:35 J	-2117923.36	-2117923.10	-2117922.84	0.0132	0.0013
Saturn	-10512-12-09 06:28 J	-2117742.41	-2117742.23	-2117742.03	0.0262	0.0172
Uranus	-10511-06-15 14:52 J	-2117554.12	-2117553.88	-2117553.63	0.0132	0.0026
Uranus	-10510-06-19 17:45 J	-2117184.97	-2117184.76	-2117184.52	0.0133	0.0069
Uranus	-10509-06-22 23:02 J	-2116815.63	-2116815.54	-2116815.41	0.0133	0.0118
Jupiter	-10506-05-23 01:55 J	-2115751.64	-2115751.42	-2115751.20	0.0523	0.0090
Neptune	-10505-06-07 22:19 J	-2115369.78	-2115369.57	-2115369.36	0.0089	0.0047

Neptune	-10504-06-10 06:00 J	-2115002.49	-2115002.25	-2115001.98	0.0089	0.0020
Neptune	-10503-06-12 23:02 J	-2114634.77	-2114634.54	-2114634.29	0.0089	0.0027
Neptune	-10502-06-15 03:35 J	-2114267.53	-2114267.35	-2114267.12	0.0089	0.0055
Saturn	-10496-06-12 04:48 J	-2112078.38	-2112078.30	-2112078.21	0.0300	0.0281
Jupiter	-10494-05-28 04:33 J	-2111363.39	-2111363.31	-2111363.21	0.0524	0.0484
Mars	-10490-10-17 09:21 J	-2109760.23	-2109760.11	-2109759.99	0.1627	0.1187
Jupiter	-10489-11-11 06:28 J	-2109369.40	-2109369.23	-2109369.06	0.0503	0.0322
Saturn	-10482-12-16 01:55 J	-2106778.60	-2106778.42	-2106778.21	0.0261	0.0150
Jupiter	-10477-11-16 01:11 J	-2104981.69	-2104981.45	-2104981.22	0.0502	0.0017
Uranus	-10473-11-26 18:00 J	-2103509.82	-2103509.75	-2103509.64	0.0147	0.0138
Uranus	-10472-12-01 19:40 J	-2103139.89	-2103139.68	-2103139.45	0.0147	0.0069
Uranus	-10471-12-07 03:50 J	-2102769.59	-2102769.34	-2102769.08	0.0146	0.0023
Uranus	-10470-12-12 02:38 J	-2102399.62	-2102399.39	-2102399.14	0.0146	0.0049
Uranus	-10469-12-16 13:11 J	-2102029.12	-2102028.95	-2102028.75	0.0146	0.0102
Saturn	-10466-06-20 22:48 J	-2101112.73	-2101112.55	-2101112.36	0.0302	0.0195
Jupiter	-10465-11-20 05:02 J	-2100594.46	-2100594.29	-2100594.11	0.0501	0.0336
Saturn	-10453-12-09 23:45 J	-2096191.73	-2096191.51	-2096191.28	0.0262	0.0113
Saturn	-10437-06-13 07:26 J	-2090527.36	-2090527.19	-2090527.01	0.0300	0.0204
Jupiter	-10435-05-17 09:07 J	-2089824.25	-2089824.12	-2089823.98	0.0522	0.0417
Uranus	-10431-05-31 11:31 J	-2088349.04	-2088349.02	-2088349.00	0.0132	0.0132
Uranus	-10430-06-04 13:26 J	-2087980.08	-2087979.94	-2087979.75	0.0132	0.0102
Uranus	-10429-06-07 20:52 J	-2087610.85	-2087610.63	-2087610.39	0.0132	0.0048
Uranus	-10428-06-11 23:16 J	-2087241.78	-2087241.53	-2087241.26	0.0132	0.0015
Uranus	-10427-06-16 06:00 J	-2086872.48	-2086872.25	-2086872.00	0.0132	0.0035
Uranus	-10426-06-20 08:24 J	-2086503.35	-2086503.15	-2086502.92	0.0132	0.0078
Uranus	-10425-06-23 14:52 J	-2086133.98	-2086133.88	-2086133.74	0.0133	0.0116
Neptune	-10424-12-03 08:52 J	-2085606.31	-2085606.13	-2085605.91	0.0088	0.0056
Jupiter	-10423-05-22 09:07 J	-2085436.36	-2085436.12	-2085435.88	0.0524	0.0029
Neptune	-10423-12-05 13:40 J	-2085239.17	-2085238.93	-2085238.67	0.0088	0.0019
Saturn	-10423-12-17 00:57 J	-2085227.60	-2085227.46	-2085227.30	0.0261	0.0210

Neptune	-10422-12-08 08:09 J	-2084871.41	-2084871.16	-2084870.90	0.0088	0.0017
Neptune	-10421-12-09 13:12 J	-2084504.13	-2084503.95	-2084503.73	0.0088	0.0053
Neptune	-10420-12-12 06:00 J	-2084136.27	-2084136.25	-2084136.22	0.0088	0.0088
Jupiter	-10411-05-27 04:04 J	-2081048.46	-2081048.33	-2081048.19	0.0525	0.0418
Mars	-10411-10-19 04:19 J	-2080903.50	-2080903.32	-2080903.15	0.1628	0.0276
Saturn	-10407-06-22 02:24 J	-2079561.48	-2079561.40	-2079561.29	0.0302	0.0278
Jupiter	-10406-11-11 19:40 J	-2079053.83	-2079053.68	-2079053.52	0.0503	0.0373
Jupiter	-10394-11-16 00:28 J	-2074666.72	-2074666.48	-2074666.25	0.0502	0.0049
Saturn	-10394-12-12 00:57 J	-2074640.69	-2074640.46	-2074640.22	0.0262	0.0051
Pluto	-10391-10-15 21:21 J	-2073601.83	-2073601.61	-2073601.37	0.0066	0.0031
Uranus	-10389-11-27 09:21 J	-2072828.24	-2072828.11	-2072827.95	0.0147	0.0123
Uranus	-10388-12-02 12:14 J	-2072458.20	-2072457.99	-2072457.78	0.0147	0.0074
Uranus	-10387-12-07 19:40 J	-2072087.94	-2072087.68	-2072087.41	0.0147	0.0002
Uranus	-10386-12-12 19:40 J	-2071717.91	-2071717.68	-2071717.44	0.0146	0.0047
Uranus	-10385-12-17 06:00 J	-2071347.40	-2071347.25	-2071347.07	0.0146	0.0110
Jupiter	-10382-11-20 19:26 J	-2070278.87	-2070278.69	-2070278.50	0.0502	0.0288
Saturn	-10378-06-15 20:38 J	-2068975.85	-2068975.64	-2068975.42	0.0300	0.0115
Jupiter	-10352-05-16 12:00 J	-2059509.09	-2059509.00	-2059508.91	0.0523	0.0481
Uranus	-10346-06-05 04:33 J	-2057298.51	-2057298.31	-2057298.10	0.0132	0.0082
Uranus	-10345-06-08 12:14 J	-2056929.20	-2056928.99	-2056928.75	0.0132	0.0054
Uranus	-10344-06-12 13:55 J	-2056560.18	-2056559.92	-2056559.66	0.0132	0.0001
Uranus	-10343-06-16 20:52 J	-2056190.86	-2056190.63	-2056190.39	0.0132	0.0038
Uranus	-10342-06-20 22:04 J	-2055821.78	-2055821.58	-2055821.37	0.0132	0.0081
Neptune	-10341-06-06 20:52 J	-2055469.75	-2055469.63	-2055469.45	0.0089	0.0073
Uranus	-10341-06-24 05:02 J	-2055452.33	-2055452.29	-2055452.21	0.0133	0.0129
Jupiter	-10340-05-21 07:12 J	-2055121.43	-2055121.20	-2055120.97	0.0523	0.0040
Neptune	-10340-06-09 15:21 J	-2055102.07	-2055101.86	-2055101.62	0.0089	0.0038
Neptune	-10339-06-11 20:38 J	-2054734.90	-2054734.64	-2054734.38	0.0089	0.0000
Neptune	-10338-06-14 14:52 J	-2054367.10	-2054366.88	-2054366.62	0.0089	0.0036
Neptune	-10337-06-15 20:52 J	-2053999.76	-2053999.63	-2053999.48	0.0089	0.0074

Saturn	-10335-12-13 09:35 J	-2053089.34	-2053089.10	-2053088.86	0.0262	0.0020
Mars	-10332-10-21 01:55 J	-2052046.57	-2052046.42	-2052046.28	0.1630	0.1051
Jupiter	-10328-05-26 11:45 J	-2050733.18	-2050733.01	-2050732.83	0.0524	0.0336
Jupiter	-10323-11-10 17:31 J	-2048738.89	-2048738.77	-2048738.66	0.0503	0.0437
Saturn	-10319-06-17 16:19 J	-2047424.06	-2047423.82	-2047423.58	0.0300	0.0006
Jupiter	-10311-11-15 12:43 J	-2044351.19	-2044350.97	-2044350.75	0.0502	0.0115
Saturn	-10306-12-08 16:47 J	-2042501.90	-2042501.80	-2042501.68	0.0263	0.0237
Uranus	-10305-11-27 21:07 J	-2042146.75	-2042146.62	-2042146.47	0.0147	0.0123
Pluto	-10304-04-19 13:40 J	-2042004.00	-2042003.93	-2042003.81	0.0078	0.0073
Uranus	-10304-12-03 00:28 J	-2041776.70	-2041776.48	-2041776.24	0.0147	0.0056
Uranus	-10303-12-08 07:12 J	-2041406.46	-2041406.20	-2041405.94	0.0147	0.0010
Uranus	-10302-12-13 07:40 J	-2041036.39	-2041036.18	-2041035.94	0.0146	0.0063
Uranus	-10301-12-17 17:16 J	-2040665.92	-2040665.78	-2040665.60	0.0146	0.0115
Jupiter	-10299-11-19 19:26 J	-2039963.90	-2039963.69	-2039963.47	0.0501	0.0221
Mars	-10293-04-21 10:19 J	-2037984.26	-2037984.07	-2037983.89	0.1897	0.1089
Saturn	-10276-12-14 20:09 J	-2031537.88	-2031537.66	-2031537.43	0.0262	0.0098
Uranus	-10263-06-01 17:31 J	-2026985.86	-2026985.77	-2026985.64	0.0132	0.0118
Uranus	-10262-06-05 18:14 J	-2026616.92	-2026616.74	-2026616.54	0.0132	0.0089
Uranus	-10261-06-09 02:52 J	-2026247.61	-2026247.38	-2026247.13	0.0132	0.0035
Uranus	-10260-06-13 03:35 J	-2025878.61	-2025878.35	-2025878.09	0.0132	0.0003
Saturn	-10260-06-19 11:31 J	-2025872.25	-2025872.02	-2025871.79	0.0301	0.0114
Neptune	-10260-12-02 07:26 J	-2025706.27	-2025706.19	-2025706.08	0.0088	0.0081
Uranus	-10259-06-17 11:45 J	-2025509.23	-2025509.01	-2025508.77	0.0132	0.0047
Neptune	-10259-12-05 01:26 J	-2025338.67	-2025338.44	-2025338.19	0.0088	0.0037
Uranus	-10258-06-21 12:28 J	-2025140.16	-2025139.98	-2025139.78	0.0132	0.0088
Neptune	-10258-12-07 07:12 J	-2024971.44	-2024971.20	-2024970.94	0.0088	0.0010
Jupiter	-10257-05-20 10:19 J	-2024806.30	-2024806.07	-2024805.84	0.0523	0.0130
Uranus	-10257-06-24 20:24 J	-2024770.70	-2024770.65	-2024770.56	0.0132	0.0127
Neptune	-10257-12-08 21:50 J	-2024603.82	-2024603.59	-2024603.33	0.0088	0.0035
Neptune	-10256-12-11 07:40 J	-2024236.33	-2024236.18	-2024235.98	0.0088	0.0063

Saturn	-10247-12-09 23:02 J	-2020950.73	-2020950.54	-2020950.33	0.0263	0.0154
Jupiter	-10245-05-24 22:19 J	-2020418.78	-2020418.57	-2020418.36	0.0524	0.0235
Saturn	-10231-06-13 08:24 J	-2015286.26	-2015286.15	-2015286.02	0.0299	0.0254
Jupiter	-10228-11-14 06:57 J	-2014036.43	-2014036.21	-2014035.99	0.0502	0.0199
Uranus	-10221-11-28 06:28 J	-2011465.38	-2011465.23	-2011465.04	0.0147	0.0113
Uranus	-10220-12-03 12:00 J	-2011095.22	-2011095.00	-2011094.78	0.0147	0.0062
Uranus	-10219-12-08 17:16 J	-2010725.04	-2010724.78	-2010724.51	0.0147	0.0011
Uranus	-10218-12-13 19:40 J	-2010354.90	-2010354.68	-2010354.45	0.0146	0.0057
Saturn	-10217-12-16 04:19 J	-2009986.49	-2009986.32	-2009986.12	0.0262	0.0182
Uranus	-10217-12-18 04:19 J	-2009984.44	-2009984.32	-2009984.15	0.0146	0.0122
Jupiter	-10216-11-18 19:55 J	-2009648.88	-2009648.67	-2009648.45	0.0502	0.0141
Mars	-10206-10-18 14:24 J	-2006028.08	-2006027.90	-2006027.73	0.1625	0.0732
Saturn	-10201-06-21 06:43 J	-2004320.36	-2004320.22	-2004320.06	0.0301	0.0239
Saturn	-10188-12-11 13:26 J	-1999399.17	-1999398.94	-1999398.71	0.0263	0.0066
Uranus	-10179-06-02 08:24 J	-1996304.21	-1996304.15	-1996304.04	0.0132	0.0124
Uranus	-10178-06-06 08:52 J	-1995935.34	-1995935.13	-1995934.90	0.0132	0.0069
Uranus	-10177-06-09 18:28 J	-1995565.97	-1995565.73	-1995565.50	0.0132	0.0040
Neptune	-10176-06-08 11:45 J	-1995202.18	-1995202.01	-1995201.79	0.0089	0.0057
Uranus	-10176-06-13 18:00 J	-1995197.01	-1995196.75	-1995196.49	0.0132	0.0013
Neptune	-10175-06-11 06:28 J	-1994834.47	-1994834.23	-1994833.98	0.0089	0.0028
Uranus	-10175-06-18 02:52 J	-1994827.61	-1994827.38	-1994827.15	0.0132	0.0049
Jupiter	-10174-05-19 20:52 J	-1994491.84	-1994491.63	-1994491.42	0.0523	0.0233
Neptune	-10174-06-13 13:12 J	-1994467.19	-1994466.95	-1994466.70	0.0089	0.0017
Uranus	-10174-06-22 01:55 J	-1994458.58	-1994458.42	-1994458.21	0.0132	0.0094
Neptune	-10173-06-15 03:35 J	-1994099.57	-1994099.35	-1994099.11	0.0089	0.0046
Saturn	-10172-06-15 11:16 J	-1993734.23	-1993734.03	-1993733.80	0.0299	0.0127
Jupiter	-10162-05-25 04:47 J	-1990103.52	-1990103.30	-1990103.08	0.0524	0.0149
Jupiter	-10145-11-13 09:21 J	-1983721.30	-1983721.11	-1983720.92	0.0503	0.0279
Pluto	-10144-10-16 19:12 J	-1983383.84	-1983383.70	-1983383.55	0.0066	0.0055
Pluto	-10143-10-18 13:26 J	-1983017.10	-1983016.94	-1983016.75	0.0067	0.0048

Uranus	-10137-11-28 14:09 J	-1980784.07	-1980783.91	-1980783.73	0.0147	0.0112
Uranus	-10136-12-03 20:09 J	-1980413.89	-1980413.66	-1980413.42	0.0147	0.0047
Uranus	-10135-12-09 00:14 J	-1980043.76	-1980043.49	-1980043.22	0.0147	0.0000
Uranus	-10134-12-14 03:35 J	-1979673.55	-1979673.35	-1979673.12	0.0146	0.0072
Jupiter	-10133-11-17 22:33 J	-1979333.80	-1979333.56	-1979333.32	0.0502	0.0072
Uranus	-10133-12-18 11:02 J	-1979303.16	-1979303.04	-1979302.87	0.0146	0.0122
Saturn	-10129-12-13 06:00 J	-1977847.49	-1977847.25	-1977847.01	0.0262	0.0022
Mars	-10127-10-20 18:00 J	-1977170.91	-1977170.75	-1977170.59	0.1626	0.0802
Jupiter	-10121-11-22 06:43 J	-1974946.30	-1974946.22	-1974946.14	0.0501	0.0465
Saturn	-10113-06-17 12:00 J	-1972182.24	-1972182.00	-1972181.75	0.0300	0.0006
Saturn	-10100-12-08 10:19 J	-1967260.18	-1967260.07	-1967259.94	0.0263	0.0232
Uranus	-10095-06-02 22:47 J	-1965622.68	-1965622.55	-1965622.39	0.0132	0.0105
Neptune	-10095-12-04 01:40 J	-1965438.61	-1965438.43	-1965438.25	0.0088	0.0062
Uranus	-10094-06-06 22:19 J	-1965253.78	-1965253.57	-1965253.36	0.0132	0.0076
Neptune	-10094-12-06 15:35 J	-1965071.09	-1965070.85	-1965070.58	0.0088	0.0027
Uranus	-10093-06-10 08:38 J	-1964884.38	-1964884.14	-1964883.89	0.0132	0.0022
Neptune	-10093-12-08 03:07 J	-1964703.61	-1964703.37	-1964703.12	0.0088	0.0011
Uranus	-10092-06-14 07:40 J	-1964515.43	-1964515.18	-1964514.92	0.0132	0.0010
Neptune	-10092-12-10 11:31 J	-1964336.23	-1964336.02	-1964335.77	0.0088	0.0044
Jupiter	-10091-05-19 02:52 J	-1964176.56	-1964176.38	-1964176.19	0.0522	0.0316
Uranus	-10091-06-18 17:45 J	-1964145.97	-1964145.76	-1964145.53	0.0132	0.0059
Neptune	-10091-12-13 03:21 J	-1963968.44	-1963968.36	-1963968.25	0.0088	0.0082
Uranus	-10090-06-22 17:02 J	-1963776.95	-1963776.79	-1963776.61	0.0132	0.0100
Jupiter	-10079-05-23 18:57 J	-1959788.95	-1959788.71	-1959788.47	0.0523	0.0047
Saturn	-10070-12-15 17:16 J	-1956296.01	-1956295.78	-1956295.55	0.0262	0.0105
Jupiter	-10067-05-28 16:04 J	-1955400.95	-1955400.83	-1955400.70	0.0524	0.0433
Jupiter	-10062-11-13 12:28 J	-1953406.15	-1953405.98	-1953405.80	0.0503	0.0344
Pluto	-10056-04-22 13:55 J	-1951419.13	-1951418.92	-1951418.71	0.0078	0.0044
Saturn	-10054-06-20 04:33 J	-1950630.53	-1950630.31	-1950630.07	0.0300	0.0115
Uranus	-10053-11-29 01:55 J	-1950102.60	-1950102.42	-1950102.23	0.0147	0.0103

Uranus	-10052-12-04 09:21 J	-1949732.34	-1949732.11	-1949731.88	0.0147	0.0051
Uranus	-10051-12-09 12:14 J	-1949362.25	-1949361.99	-1949361.72	0.0147	0.0020
Jupiter	-10050-11-17 17:31 J	-1949019.00	-1949018.77	-1949018.55	0.0502	0.0009
Uranus	-10050-12-14 17:02 J	-1948992.00	-1948991.79	-1948991.56	0.0146	0.0065
Uranus	-10049-12-18 23:45 J	-1948621.61	-1948621.51	-1948621.37	0.0146	0.0131
Mars	-10048-10-22 14:09 J	-1948313.95	-1948313.91	-1948313.86	0.1627	0.1571
Saturn	-10041-12-09 20:09 J	-1945708.86	-1945708.66	-1945708.46	0.0263	0.0152
Jupiter	-10038-11-22 10:04 J	-1944631.22	-1944631.08	-1944630.93	0.0501	0.0390
Saturn	-10025-06-12 23:02 J	-1940044.62	-1940044.54	-1940044.44	0.0299	0.0275
Neptune	-10012-06-07 20:52 J	-1935301.72	-1935301.63	-1935301.51	0.0089	0.0081
Uranus	-10011-06-03 13:40 J	-1934941.05	-1934940.93	-1934940.78	0.0132	0.0111
Neptune	-10011-06-10 04:47 J	-1934934.49	-1934934.30	-1934934.07	0.0089	0.0049
Saturn	-10011-12-16 21:35 J	-1934744.77	-1934744.60	-1934744.41	0.0261	0.0182
Uranus	-10010-06-07 12:57 J	-1934572.19	-1934571.96	-1934571.72	0.0132	0.0056
Neptune	-10010-06-12 18:43 J	-1934566.98	-1934566.72	-1934566.45	0.0089	0.0009
Uranus	-10009-06-10 23:45 J	-1934202.75	-1934202.51	-1934202.26	0.0132	0.0028
Neptune	-10009-06-14 07:12 J	-1934199.43	-1934199.20	-1934198.95	0.0089	0.0024
Jupiter	-10008-05-17 16:19 J	-1933861.96	-1933861.82	-1933861.67	0.0522	0.0411
Uranus	-10008-06-14 22:33 J	-1933833.81	-1933833.56	-1933833.31	0.0132	0.0025
Neptune	-10008-06-16 15:21 J	-1933832.02	-1933831.86	-1933831.66	0.0089	0.0064
Uranus	-10007-06-19 08:38 J	-1933464.34	-1933464.14	-1933463.90	0.0132	0.0062
Uranus	-10006-06-23 07:26 J	-1933095.34	-1933095.19	-1933095.03	0.0132	0.0105
Mars	-10001-10-16 12:28 J	-1931153.09	-1931152.98	-1931152.87	0.1622	0.1266

10TH MILLENNIUM BCE

This is a list of transits of Moon in the 10th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Jupiter	-9996-05-22 19:40 J		-1929473.90	-1929473.68	-1929473.45	0.0523	0.0044	
Saturn	-9995-06-21 13:26 J		-1929079.11	-1929078.94	-1929078.76	0.0301	0.0213	
Jupiter	-9984-05-27 23:31 J		-1925085.69	-1925085.52	-1925085.36	0.0524	0.0372	
Saturn	-9982-12-12 06:43 J		-1924157.44	-1924157.22	-1924156.99	0.0263	0.0077	
Jupiter	-9979-11-12 09:21 J		-1923091.23	-1923091.11	-1923090.99	0.0503	0.0424	
Uranus	-9969-11-29 15:35 J		-1919421.03	-1919420.85	-1919420.64	0.0147	0.0098	
Uranus	-9968-12-04 23:31 J		-1919050.75	-1919050.52	-1919050.27	0.0147	0.0034	
Jupiter	-9967-11-17 02:38 J		-1918703.62	-1918703.39	-1918703.15	0.0503	0.0062	
Uranus	-9967-12-10 01:26 J		-1918680.71	-1918680.44	-1918680.18	0.0146	0.0012	
Saturn	-9966-06-15 12:28 J		-1918493.16	-1918492.98	-1918492.78	0.0300	0.0185	
Uranus	-9966-12-15 06:43 J		-1918310.41	-1918310.22	-1918310.00	0.0146	0.0084	
Uranus	-9965-12-19 12:14 J		-1917940.10	-1917939.99	-1917939.87	0.0146	0.0131	
Jupiter	-9955-11-21 08:38 J		-1914316.30	-1914316.14	-1914315.96	0.0502	0.0337	
Saturn	-9952-12-18 00:00 J		-1913193.55	-1913193.50	-1913193.43	0.0261	0.0252	
Saturn	-9936-06-22 21:21 J		-1907527.63	-1907527.61	-1907527.56	0.0301	0.0297	
Neptune	-9931-12-03 07:12 J		-1905538.21	-1905538.20	-1905538.14	0.0088	0.0088	
Mars	-9930-04-24 20:09 J		-1905395.83	-1905395.66	-1905395.48	0.1899	0.1094	
Neptune	-9930-12-05 20:09 J		-1905170.86	-1905170.66	-1905170.43	0.0088	0.0044	
Neptune	-9929-12-07 04:19 J		-1904803.58	-1904803.32	-1904803.06	0.0088	0.0017	
Neptune	-9928-12-09 21:07 J		-1904435.85	-1904435.62	-1904435.37	0.0088	0.0027	
Uranus	-9927-06-04 04:47 J		-1904259.47	-1904259.30	-1904259.11	0.0132	0.0092	
Neptune	-9927-12-12 01:55 J		-1904068.61	-1904068.42	-1904068.20	0.0088	0.0055	
Uranus	-9926-06-08 03:07 J		-1903890.58	-1903890.37	-1903890.13	0.0132	0.0064	
Jupiter	-9925-05-17 03:07 J		-1903546.46	-1903546.37	-1903546.27	0.0522	0.0468	
Uranus	-9925-06-11 15:07 J		-1903521.12	-1903520.87	-1903520.62	0.0132	0.0009	
Uranus	-9924-06-15 13:26 J		-1903152.19	-1903151.94	-1903151.68	0.0132	0.0022	

Uranus	-9923-06-20 00:43 J	-1902782.67	-1902782.47	-1902782.26	0.0132	0.0072
Saturn	-9923-12-13 14:24 J	-1902606.14	-1902605.90	-1902605.65	0.0262	0.0008
Uranus	-9922-06-23 22:33 J	-1902413.67	-1902413.56	-1902413.40	0.0132	0.0112
Mars	-9922-10-19 10:33 J	-1902296.24	-1902296.06	-1902295.88	0.1623	0.0425
Jupiter	-9913-05-22 04:04 J	-1899158.56	-1899158.33	-1899158.09	0.0523	0.0099
Saturn	-9907-06-16 14:38 J	-1896942.12	-1896941.89	-1896941.65	0.0300	0.0111
Jupiter	-9901-05-26 22:47 J	-1894770.73	-1894770.55	-1894770.37	0.0524	0.0310
Pluto	-9897-10-17 20:52 J	-1893165.65	-1893165.63	-1893165.54	0.0066	0.0065
Pluto	-9896-10-19 13:26 J	-1892799.16	-1892798.94	-1892798.72	0.0067	0.0031
Jupiter	-9896-11-11 22:33 J	-1892775.62	-1892775.56	-1892775.47	0.0504	0.0476
Uranus	-9886-11-26 10:19 J	-1889109.10	-1889109.07	-1889108.99	0.0146	0.0143
Uranus	-9885-11-30 08:38 J	-1888739.34	-1888739.14	-1888738.93	0.0147	0.0088
Jupiter	-9884-11-16 05:02 J	-1888388.52	-1888388.29	-1888388.06	0.0503	0.0102
Uranus	-9884-12-05 17:31 J	-1888369.01	-1888368.77	-1888368.53	0.0147	0.0036
Uranus	-9883-12-10 18:57 J	-1887998.97	-1887998.71	-1887998.45	0.0146	0.0035
Uranus	-9882-12-16 01:26 J	-1887628.64	-1887628.44	-1887628.23	0.0146	0.0079
Uranus	-9881-12-20 06:00 J	-1887258.28	-1887258.25	-1887258.19	0.0146	0.0144
Jupiter	-9872-11-20 21:21 J	-1884000.80	-1884000.61	-1884000.43	0.0502	0.0285
Saturn	-9864-12-14 13:12 J	-1881055.19	-1881054.95	-1881054.69	0.0262	0.0055
Saturn	-9848-06-17 08:38 J	-1875391.38	-1875391.14	-1875390.89	0.0300	0.0053
Neptune	-9847-06-09 09:35 J	-1875034.27	-1875034.10	-1875033.92	0.0089	0.0067
Neptune	-9846-06-11 22:47 J	-1874666.76	-1874666.55	-1874666.30	0.0089	0.0038
Neptune	-9845-06-13 06:43 J	-1874299.48	-1874299.22	-1874298.96	0.0089	0.0007
Uranus	-9844-05-31 07:55 J	-1873947.22	-1873947.17	-1873947.10	0.0132	0.0129
Neptune	-9844-06-16 00:14 J	-1873931.70	-1873931.49	-1873931.24	0.0089	0.0036
Uranus	-9843-06-04 20:38 J	-1873577.81	-1873577.64	-1873577.47	0.0132	0.0097
Neptune	-9843-06-18 05:02 J	-1873564.38	-1873564.29	-1873564.16	0.0089	0.0081
Mars	-9843-10-21 17:16 J	-1873438.91	-1873438.78	-1873438.65	0.1624	0.1190
Jupiter	-9842-05-17 11:02 J	-1873231.05	-1873231.04	-1873231.00	0.0522	0.0519
Uranus	-9842-06-08 18:57 J	-1873208.94	-1873208.71	-1873208.45	0.0132	0.0044

Uranus	-9841-06-12 07:12 J	-1872839.45	-1872839.20	-1872838.95	0.0132	0.0015
Uranus	-9840-06-16 05:16 J	-1872470.53	-1872470.28	-1872470.04	0.0132	0.0039
Uranus	-9839-06-20 16:19 J	-1872101.02	-1872100.82	-1872100.60	0.0132	0.0073
Uranus	-9838-06-24 14:09 J	-1871732.03	-1871731.91	-1871731.79	0.0132	0.0117
Saturn	-9835-12-09 12:00 J	-1870468.12	-1870468.00	-1870467.85	0.0263	0.0213
Jupiter	-9830-05-22 05:16 J	-1868843.50	-1868843.28	-1868843.07	0.0523	0.0161
Jupiter	-9818-05-27 12:28 J	-1864455.18	-1864454.98	-1864454.77	0.0524	0.0267
Pluto	-9809-04-23 11:02 J	-1861201.28	-1861201.04	-1861200.79	0.0078	0.0023
Saturn	-9805-12-15 05:31 J	-1859504.50	-1859504.27	-1859504.04	0.0262	0.0110
Uranus	-9802-11-27 01:26 J	-1858427.47	-1858427.44	-1858427.36	0.0146	0.0143
Jupiter	-9801-11-15 19:55 J	-1858072.89	-1858072.67	-1858072.45	0.0502	0.0143
Uranus	-9801-11-30 23:02 J	-1858057.74	-1858057.54	-1858057.32	0.0146	0.0082
Uranus	-9800-12-06 08:24 J	-1857687.39	-1857687.15	-1857686.90	0.0146	0.0019
Uranus	-9799-12-11 08:38 J	-1857317.39	-1857317.14	-1857316.87	0.0146	0.0027
Uranus	-9798-12-16 15:50 J	-1856947.01	-1856946.84	-1856946.65	0.0146	0.0098
Uranus	-9797-12-20 19:12 J	-1856576.74	-1856576.70	-1856576.64	0.0146	0.0144
Saturn	-9789-06-18 02:09 J	-1853840.65	-1853840.41	-1853840.17	0.0300	0.0003
Jupiter	-9789-11-20 01:55 J	-1853685.63	-1853685.42	-1853685.21	0.0502	0.0243
Saturn	-9776-12-10 12:43 J	-1848917.15	-1848916.97	-1848916.76	0.0263	0.0159
Neptune	-9766-12-04 21:21 J	-1845270.75	-1845270.61	-1845270.41	0.0088	0.0068
Neptune	-9765-12-06 15:07 J	-1844903.09	-1844902.87	-1844902.62	0.0088	0.0036
Neptune	-9764-12-08 19:55 J	-1844535.92	-1844535.67	-1844535.41	0.0088	0.0005
Neptune	-9763-12-11 14:09 J	-1844168.14	-1844167.91	-1844167.66	0.0088	0.0036
Neptune	-9762-12-13 18:57 J	-1843800.81	-1843800.71	-1843800.55	0.0088	0.0076
Uranus	-9760-05-31 23:02 J	-1843265.59	-1843265.54	-1843265.49	0.0132	0.0130
Uranus	-9759-06-05 11:31 J	-1842896.22	-1842896.02	-1842895.81	0.0132	0.0079
Uranus	-9758-06-09 09:21 J	-1842527.33	-1842527.11	-1842526.86	0.0132	0.0051
Uranus	-9757-06-12 21:50 J	-1842157.84	-1842157.59	-1842157.34	0.0132	0.0004
Uranus	-9756-06-16 19:26 J	-1841788.93	-1841788.69	-1841788.44	0.0132	0.0034
Uranus	-9755-06-21 07:12 J	-1841419.39	-1841419.20	-1841419.01	0.0132	0.0084

Uranus	-9754-06-25 04:04 J	-1841050.40	-1841050.33	-1841050.21	0.0132	0.0123
Jupiter	-9747-05-22 00:00 J	-1838527.72	-1838527.50	-1838527.28	0.0523	0.0194
Saturn	-9746-12-17 01:12 J	-1837953.63	-1837953.45	-1837953.25	0.0262	0.0160
Jupiter	-9735-05-26 18:43 J	-1834139.93	-1834139.72	-1834139.51	0.0524	0.0241
Saturn	-9730-06-19 23:02 J	-1832289.77	-1832289.54	-1832289.31	0.0300	0.0042
Jupiter	-9718-11-16 02:52 J	-1827757.60	-1827757.38	-1827757.15	0.0503	0.0173
Uranus	-9718-11-27 14:38 J	-1827745.99	-1827745.89	-1827745.75	0.0146	0.0128
Mars	-9717-10-18 05:02 J	-1827420.46	-1827420.29	-1827420.12	0.1621	0.0647
Uranus	-9717-12-01 11:45 J	-1827376.22	-1827376.01	-1827375.78	0.0146	0.0075
Saturn	-9717-12-11 07:12 J	-1827366.42	-1827366.20	-1827365.96	0.0263	0.0111
Uranus	-9716-12-06 22:04 J	-1827005.82	-1827005.58	-1827005.33	0.0147	0.0022
Uranus	-9715-12-11 21:35 J	-1826635.84	-1826635.60	-1826635.34	0.0146	0.0048
Uranus	-9714-12-17 05:45 J	-1826265.44	-1826265.26	-1826265.05	0.0146	0.0091
Jupiter	-9706-11-20 19:26 J	-1823369.89	-1823369.69	-1823369.49	0.0502	0.0220
Saturn	-9687-12-18 00:43 J	-1816402.61	-1816402.47	-1816402.32	0.0262	0.0206
Neptune	-9683-06-08 16:19 J	-1815133.82	-1815133.82	-1815133.81	0.0089	0.0089
Neptune	-9682-06-10 22:19 J	-1814766.74	-1814766.57	-1814766.35	0.0089	0.0059
Neptune	-9681-06-12 17:02 J	-1814399.03	-1814398.79	-1814398.53	0.0089	0.0017
Neptune	-9680-06-14 21:50 J	-1814031.84	-1814031.59	-1814031.33	0.0089	0.0013
Neptune	-9679-06-17 15:35 J	-1813664.03	-1813663.85	-1813663.62	0.0089	0.0056
Neptune	-9678-06-19 22:04 J	-1813296.63	-1813296.58	-1813296.52	0.0089	0.0087
Uranus	-9676-06-01 13:12 J	-1812584.06	-1812583.95	-1812583.81	0.0132	0.0115
Uranus	-9675-06-06 01:55 J	-1812214.60	-1812214.42	-1812214.21	0.0132	0.0084
Uranus	-9674-06-10 00:28 J	-1811845.73	-1811845.48	-1811845.23	0.0132	0.0030
Uranus	-9673-06-13 12:43 J	-1811476.23	-1811475.97	-1811475.72	0.0132	0.0003
Uranus	-9672-06-17 09:50 J	-1811107.31	-1811107.09	-1811106.84	0.0132	0.0051
Saturn	-9671-06-20 18:43 J	-1810738.95	-1810738.72	-1810738.49	0.0300	0.0088
Uranus	-9671-06-21 21:21 J	-1810737.79	-1810737.61	-1810737.41	0.0132	0.0084
Uranus	-9670-06-25 18:00 J	-1810368.79	-1810368.75	-1810368.66	0.0132	0.0128
Jupiter	-9664-05-21 04:47 J	-1808212.51	-1808212.30	-1808212.09	0.0523	0.0234

Saturn	-9658-12-12 21:21 J	-1805815.86	-1805815.61	-1805815.36	0.0263	0.0063
Jupiter	-9652-05-26 09:21 J	-1803824.32	-1803824.11	-1803823.90	0.0523	0.0207
Pluto	-9649-10-20 17:02 J	-1802580.97	-1802580.79	-1802580.57	0.0067	0.0040
Mars	-9646-04-24 05:31 J	-1801665.45	-1801665.27	-1801665.08	0.1902	0.0338
Mars	-9638-10-20 23:02 J	-1798563.72	-1798563.54	-1798563.37	0.1621	0.0142
Jupiter	-9635-11-15 18:00 J	-1797441.95	-1797441.75	-1797441.54	0.0502	0.0197
Uranus	-9634-11-27 23:31 J	-1797064.62	-1797064.52	-1797064.40	0.0146	0.0132
Uranus	-9633-12-01 20:09 J	-1796694.88	-1796694.66	-1796694.43	0.0146	0.0070
Uranus	-9632-12-07 06:43 J	-1796324.47	-1796324.22	-1796323.97	0.0146	0.0009
Uranus	-9631-12-12 04:47 J	-1795954.55	-1795954.30	-1795954.04	0.0146	0.0037
Uranus	-9630-12-17 13:40 J	-1795584.08	-1795583.93	-1795583.75	0.0146	0.0107
Saturn	-9628-12-18 20:24 J	-1794851.70	-1794851.65	-1794851.57	0.0262	0.0253
Jupiter	-9623-11-20 07:55 J	-1793054.39	-1793054.17	-1793053.94	0.0502	0.0182
Saturn	-9612-06-21 09:50 J	-1789188.31	-1789188.09	-1789187.86	0.0300	0.0138
Jupiter	-9611-11-24 14:38 J	-1788666.92	-1788666.89	-1788666.87	0.0501	0.0498
Neptune	-9601-12-05 13:40 J	-1785003.14	-1785002.93	-1785002.72	0.0088	0.0051
Neptune	-9600-12-08 07:26 J	-1784635.43	-1784635.19	-1784634.92	0.0088	0.0023
Neptune	-9599-12-10 13:55 J	-1784268.15	-1784267.92	-1784267.66	0.0088	0.0020
Saturn	-9599-12-13 14:52 J	-1784265.13	-1784264.88	-1784264.64	0.0263	0.0014
Neptune	-9598-12-13 05:02 J	-1783900.51	-1783900.29	-1783900.06	0.0088	0.0048
Uranus	-9592-06-02 03:07 J	-1781902.49	-1781902.37	-1781902.25	0.0132	0.0117
Uranus	-9591-06-06 15:35 J	-1781533.06	-1781532.85	-1781532.62	0.0132	0.0066
Uranus	-9590-06-10 13:40 J	-1781164.17	-1781163.93	-1781163.68	0.0132	0.0038
Uranus	-9589-06-14 01:40 J	-1780794.68	-1780794.43	-1780794.17	0.0132	0.0016
Uranus	-9588-06-17 23:02 J	-1780425.77	-1780425.54	-1780425.29	0.0132	0.0045
Uranus	-9587-06-22 10:47 J	-1780056.23	-1780056.05	-1780055.88	0.0132	0.0095
Uranus	-9586-06-26 07:55 J	-1779687.18	-1779687.17	-1779687.15	0.0132	0.0132
Saturn	-9583-06-15 00:57 J	-1778602.57	-1778602.46	-1778602.35	0.0298	0.0261
Jupiter	-9581-05-20 18:43 J	-1777896.91	-1777896.72	-1777896.52	0.0523	0.0281
Jupiter	-9569-05-25 14:38 J	-1773509.12	-1773508.89	-1773508.66	0.0524	0.0161

Pluto	-9562-04-25 12:28 J	-1770983.22	-1770982.98	-1770982.73	0.0078	0.0018
Saturn	-9553-06-22 05:45 J	-1767637.44	-1767637.26	-1767637.08	0.0300	0.0202
Jupiter	-9552-11-15 06:14 J	-1767126.45	-1767126.24	-1767126.02	0.0503	0.0225
Uranus	-9550-11-28 08:52 J	-1766383.28	-1766383.13	-1766382.98	0.0146	0.0117
Uranus	-9549-12-02 04:47 J	-1766013.52	-1766013.30	-1766013.06	0.0146	0.0067
Uranus	-9548-12-07 15:50 J	-1765643.09	-1765642.84	-1765642.59	0.0146	0.0013
Uranus	-9547-12-12 13:26 J	-1765273.17	-1765272.94	-1765272.69	0.0146	0.0055
Uranus	-9546-12-17 23:16 J	-1764902.70	-1764902.53	-1764902.33	0.0146	0.0097
Jupiter	-9540-11-19 13:12 J	-1762739.17	-1762738.95	-1762738.73	0.0502	0.0137
Saturn	-9540-12-14 15:07 J	-1762714.10	-1762713.87	-1762713.63	0.0263	0.0039
Jupiter	-9528-11-24 09:07 J	-1758351.21	-1758351.12	-1758351.02	0.0501	0.0455
Saturn	-9524-06-16 05:31 J	-1757051.46	-1757051.27	-1757051.08	0.0298	0.0190
Neptune	-9518-06-10 09:50 J	-1754866.21	-1754866.09	-1754865.93	0.0089	0.0074
Neptune	-9517-06-11 14:38 J	-1754499.09	-1754498.89	-1754498.65	0.0089	0.0045
Neptune	-9516-06-14 09:07 J	-1754131.38	-1754131.12	-1754130.86	0.0089	0.0002
Neptune	-9515-06-16 16:04 J	-1753764.06	-1753763.83	-1753763.58	0.0089	0.0028
Neptune	-9514-06-19 06:28 J	-1753396.38	-1753396.23	-1753396.06	0.0089	0.0070
Saturn	-9511-12-09 18:57 J	-1752126.83	-1752126.71	-1752126.56	0.0265	0.0225
Uranus	-9508-06-02 15:21 J	-1751221.00	-1751220.86	-1751220.69	0.0132	0.0104
Uranus	-9507-06-07 04:04 J	-1750851.54	-1750851.33	-1750851.11	0.0132	0.0072
Uranus	-9506-06-11 02:38 J	-1750482.63	-1750482.39	-1750482.13	0.0132	0.0020
Uranus	-9505-06-14 14:52 J	-1750113.14	-1750112.88	-1750112.63	0.0132	0.0008
Uranus	-9504-06-18 12:14 J	-1749744.20	-1749743.99	-1749743.75	0.0132	0.0062
Uranus	-9503-06-22 23:45 J	-1749374.68	-1749374.51	-1749374.32	0.0132	0.0094
Jupiter	-9498-05-20 20:38 J	-1747581.82	-1747581.64	-1747581.45	0.0523	0.0340
Saturn	-9494-06-24 12:14 J	-1746086.06	-1746085.99	-1746085.91	0.0300	0.0283
Jupiter	-9486-05-25 23:02 J	-1743193.76	-1743193.54	-1743193.32	0.0524	0.0114
Saturn	-9481-12-15 18:14 J	-1741162.96	-1741162.74	-1741162.50	0.0264	0.0100
Jupiter	-9469-11-14 09:50 J	-1736811.28	-1736811.09	-1736810.89	0.0503	0.0266
Uranus	-9466-11-28 19:26 J	-1735701.81	-1735701.69	-1735701.53	0.0146	0.0123

Saturn	-9465-06-17 10:19 J	-1735500.30	-1735500.07	-1735499.83	0.0298	0.0102
Uranus	-9465-12-02 15:50 J	-1735332.07	-1735331.84	-1735331.60	0.0146	0.0059
Uranus	-9464-12-08 02:24 J	-1734961.65	-1734961.40	-1734961.14	0.0146	0.0002
Uranus	-9463-12-12 23:02 J	-1734591.78	-1734591.54	-1734591.29	0.0146	0.0045
Uranus	-9462-12-18 09:07 J	-1734221.26	-1734221.12	-1734220.96	0.0146	0.0115
Jupiter	-9457-11-19 05:31 J	-1732423.50	-1732423.27	-1732423.04	0.0502	0.0090
Saturn	-9452-12-10 16:33 J	-1730576.00	-1730575.81	-1730575.61	0.0265	0.0161
Jupiter	-9445-11-23 09:07 J	-1728036.25	-1728036.12	-1728035.98	0.0501	0.0400
Neptune	-9437-12-05 01:55 J	-1725102.55	-1725102.42	-1725102.25	0.0088	0.0073
Neptune	-9436-12-07 08:52 J	-1724735.33	-1724735.13	-1724734.90	0.0088	0.0043
Neptune	-9435-12-09 22:19 J	-1724367.84	-1724367.57	-1724367.30	0.0088	0.0002
Neptune	-9434-12-12 09:50 J	-1724000.32	-1724000.09	-1723999.85	0.0088	0.0029
Mars	-9433-10-19 07:40 J	-1723688.38	-1723688.18	-1723687.99	0.1619	0.0194
Neptune	-9433-12-13 18:28 J	-1723632.87	-1723632.73	-1723632.55	0.0088	0.0069
Uranus	-9424-06-03 04:04 J	-1720539.47	-1720539.33	-1720539.17	0.0132	0.0106
Uranus	-9423-06-07 16:04 J	-1720170.05	-1720169.83	-1720169.58	0.0132	0.0056
Uranus	-9422-06-11 15:07 J	-1719801.11	-1719800.87	-1719800.62	0.0132	0.0028
Saturn	-9422-12-17 19:12 J	-1719611.89	-1719611.70	-1719611.50	0.0264	0.0163
Uranus	-9421-06-15 02:24 J	-1719431.64	-1719431.40	-1719431.14	0.0132	0.0027
Uranus	-9420-06-19 00:43 J	-1719062.69	-1719062.47	-1719062.24	0.0132	0.0054
Uranus	-9419-06-23 11:45 J	-1718693.15	-1718693.01	-1718692.84	0.0132	0.0105
Jupiter	-9415-05-20 00:00 J	-1717266.63	-1717266.50	-1717266.35	0.0522	0.0410
Saturn	-9406-06-19 19:40 J	-1713948.93	-1713948.68	-1713948.43	0.0298	0.0003
Jupiter	-9403-05-25 00:28 J	-1712878.72	-1712878.48	-1712878.23	0.0523	0.0040
Pluto	-9403-10-21 15:50 J	-1712729.00	-1712728.84	-1712728.64	0.0066	0.0049
Pluto	-9402-10-23 00:57 J	-1712362.62	-1712362.46	-1712362.29	0.0067	0.0050
Saturn	-9393-12-11 23:16 J	-1709024.76	-1709024.53	-1709024.31	0.0265	0.0092
Jupiter	-9391-05-29 16:19 J	-1708490.94	-1708490.82	-1708490.70	0.0525	0.0444
Jupiter	-9386-11-15 00:00 J	-1706495.68	-1706495.50	-1706495.32	0.0503	0.0313
Uranus	-9382-11-29 09:35 J	-1705020.26	-1705020.10	-1705019.90	0.0146	0.0105

Uranus	-9381-12-03 06:00 J	-1704650.48	-1704650.25	-1704650.01	0.0146	0.0056
Uranus	-9380-12-08 16:33 J	-1704280.07	-1704279.81	-1704279.56	0.0146	0.0002
Uranus	-9379-12-13 12:57 J	-1703910.18	-1703909.96	-1703909.72	0.0146	0.0065
Uranus	-9378-12-18 23:31 J	-1703539.68	-1703539.52	-1703539.33	0.0146	0.0105
Jupiter	-9374-11-19 00:28 J	-1702108.71	-1702108.48	-1702108.24	0.0502	0.0024
Saturn	-9363-12-18 20:38 J	-1698060.74	-1698060.64	-1698060.51	0.0264	0.0234
Mars	-9362-04-23 10:04 J	-1697935.29	-1697935.08	-1697934.87	0.1905	0.0683
Jupiter	-9362-11-23 17:31 J	-1697720.93	-1697720.77	-1697720.59	0.0501	0.0327
Mars	-9354-10-22 12:43 J	-1694831.14	-1694830.97	-1694830.80	0.1620	0.0650
Neptune	-9353-06-11 02:38 J	-1694598.55	-1694598.39	-1694598.20	0.0089	0.0065
Neptune	-9352-06-13 11:02 J	-1694231.28	-1694231.04	-1694230.80	0.0089	0.0022
Neptune	-9351-06-15 23:45 J	-1693863.78	-1693863.51	-1693863.24	0.0089	0.0006
Neptune	-9350-06-18 12:14 J	-1693496.18	-1693495.99	-1693495.77	0.0089	0.0049
Neptune	-9349-06-19 19:55 J	-1693128.76	-1693128.67	-1693128.51	0.0089	0.0079
Saturn	-9347-06-21 14:09 J	-1692397.13	-1692396.91	-1692396.69	0.0299	0.0114
Uranus	-9340-06-03 17:02 J	-1689857.96	-1689857.79	-1689857.61	0.0132	0.0094
Uranus	-9339-06-08 04:33 J	-1689488.53	-1689488.31	-1689488.07	0.0132	0.0062
Uranus	-9338-06-12 04:19 J	-1689119.56	-1689119.32	-1689119.07	0.0132	0.0010
Uranus	-9337-06-15 15:50 J	-1688750.10	-1688749.84	-1688749.59	0.0132	0.0018
Uranus	-9336-06-19 14:24 J	-1688381.10	-1688380.90	-1688380.68	0.0132	0.0071
Uranus	-9335-06-24 01:12 J	-1688011.60	-1688011.45	-1688011.28	0.0132	0.0103
Saturn	-9334-12-14 11:16 J	-1687473.27	-1687473.03	-1687472.79	0.0265	0.0016
Jupiter	-9332-05-18 19:12 J	-1686951.76	-1686951.70	-1686951.63	0.0523	0.0502
Jupiter	-9320-05-23 16:04 J	-1682564.06	-1682563.83	-1682563.60	0.0524	0.0052
Saturn	-9318-06-15 22:19 J	-1681810.69	-1681810.57	-1681810.42	0.0296	0.0248
Pluto	-9315-04-26 21:50 J	-1680764.76	-1680764.59	-1680764.39	0.0078	0.0053
Jupiter	-9308-05-29 00:14 J	-1678175.65	-1678175.49	-1678175.32	0.0524	0.0365
Jupiter	-9303-11-13 14:38 J	-1676181.02	-1676180.89	-1676180.74	0.0503	0.0395
Uranus	-9298-11-30 00:14 J	-1674338.66	-1674338.49	-1674338.31	0.0146	0.0108
Uranus	-9297-12-03 20:24 J	-1673968.87	-1673968.65	-1673968.40	0.0146	0.0047

Uranus	-9296-12-09 06:43 J	-1673598.47	-1673598.22	-1673597.96	0.0146	0.0012
Uranus	-9295-12-14 02:52 J	-1673228.61	-1673228.38	-1673228.14	0.0146	0.0057
Uranus	-9294-12-19 13:40 J	-1672858.06	-1672857.93	-1672857.80	0.0146	0.0126
Jupiter	-9291-11-18 08:38 J	-1671793.36	-1671793.14	-1671792.91	0.0502	0.0054
Saturn	-9288-06-23 14:52 J	-1670845.01	-1670844.88	-1670844.73	0.0299	0.0238
Jupiter	-9279-11-22 16:33 J	-1667406.02	-1667405.81	-1667405.60	0.0501	0.0253
Saturn	-9275-12-15 22:33 J	-1665921.80	-1665921.56	-1665921.32	0.0265	0.0069
Neptune	-9272-12-06 17:31 J	-1664834.96	-1664834.77	-1664834.55	0.0088	0.0056
Neptune	-9271-12-09 06:14 J	-1664467.46	-1664467.24	-1664466.99	0.0088	0.0028
Neptune	-9270-12-11 13:55 J	-1664100.18	-1664099.92	-1664099.65	0.0088	0.0014
Neptune	-9269-12-13 06:43 J	-1663732.43	-1663732.22	-1663731.99	0.0088	0.0043
Neptune	-9268-12-15 11:02 J	-1663365.09	-1663365.04	-1663364.94	0.0088	0.0084
Saturn	-9259-06-17 17:31 J	-1660259.00	-1660258.77	-1660258.54	0.0297	0.0124
Uranus	-9257-05-31 04:19 J	-1659545.32	-1659545.32	-1659545.28	0.0132	0.0132
Uranus	-9256-06-04 05:31 J	-1659176.43	-1659176.27	-1659176.08	0.0132	0.0095
Uranus	-9255-06-08 16:33 J	-1658807.04	-1658806.81	-1658806.55	0.0132	0.0047
Uranus	-9254-06-12 16:47 J	-1658438.04	-1658437.80	-1658437.55	0.0132	0.0018
Uranus	-9253-06-16 03:21 J	-1658068.61	-1658068.36	-1658068.11	0.0132	0.0036
Uranus	-9252-06-20 02:24 J	-1657699.60	-1657699.40	-1657699.16	0.0132	0.0065
Uranus	-9251-06-24 12:43 J	-1657330.08	-1657329.97	-1657329.82	0.0132	0.0114
Saturn	-9246-12-10 23:02 J	-1655334.71	-1655334.54	-1655334.36	0.0266	0.0187
Jupiter	-9237-05-22 20:09 J	-1652248.89	-1652248.66	-1652248.43	0.0523	0.0128
Mars	-9228-10-18 12:14 J	-1648813.11	-1648812.99	-1648812.87	0.1617	0.1166
Jupiter	-9225-05-27 10:19 J	-1647861.27	-1647861.07	-1647860.86	0.0524	0.0266
Jupiter	-9220-11-13 00:14 J	-1645865.58	-1645865.49	-1645865.40	0.0504	0.0461
Saturn	-9216-12-17 06:57 J	-1644370.40	-1644370.21	-1644369.99	0.0264	0.0152
Uranus	-9214-11-30 12:28 J	-1643657.17	-1643656.98	-1643656.76	0.0146	0.0091
Uranus	-9213-12-04 09:35 J	-1643287.33	-1643287.10	-1643286.86	0.0146	0.0044
Uranus	-9212-12-09 19:26 J	-1642916.95	-1642916.69	-1642916.43	0.0146	0.0011
Uranus	-9211-12-14 16:04 J	-1642547.05	-1642546.83	-1642546.61	0.0146	0.0076

Uranus	-9210-12-20 02:52 J	-1642176.51	-1642176.38	-1642176.21	0.0146	0.0116
Jupiter	-9208-11-17 06:43 J	-1641478.45	-1641478.22	-1641477.98	0.0503	0.0127
Saturn	-9200-06-19 12:43 J	-1638707.21	-1638706.97	-1638706.72	0.0297	0.0005
Jupiter	-9196-11-21 15:21 J	-1637091.07	-1637090.86	-1637090.65	0.0502	0.0168
Neptune	-9189-06-10 05:45 J	-1634698.35	-1634698.26	-1634698.13	0.0089	0.0080
Neptune	-9188-06-12 18:00 J	-1634330.95	-1634330.75	-1634330.51	0.0089	0.0049
Neptune	-9187-06-15 08:52 J	-1633963.37	-1633963.13	-1633962.88	0.0089	0.0009
Saturn	-9187-12-12 15:07 J	-1633783.08	-1633782.87	-1633782.64	0.0265	0.0100
Neptune	-9186-06-17 16:04 J	-1633596.08	-1633595.83	-1633595.57	0.0089	0.0023
Neptune	-9185-06-19 09:35 J	-1633228.26	-1633228.10	-1633227.91	0.0089	0.0064
Uranus	-9173-05-31 15:50 J	-1628863.91	-1628863.84	-1628863.74	0.0132	0.0126
Uranus	-9172-06-04 17:45 J	-1628494.93	-1628494.76	-1628494.55	0.0132	0.0085
Uranus	-9171-06-09 04:19 J	-1628125.56	-1628125.32	-1628125.08	0.0132	0.0051
Uranus	-9170-06-13 05:31 J	-1627756.52	-1627756.27	-1627756.02	0.0132	0.0000
Uranus	-9169-06-16 15:21 J	-1627387.11	-1627386.86	-1627386.60	0.0132	0.0027
Uranus	-9168-06-20 15:35 J	-1627018.03	-1627017.85	-1627017.64	0.0132	0.0081
Uranus	-9167-06-25 00:57 J	-1626648.58	-1626648.46	-1626648.30	0.0132	0.0112
Saturn	-9157-12-18 15:50 J	-1622818.94	-1622818.84	-1622818.72	0.0264	0.0237
Pluto	-9156-10-23 06:43 J	-1622510.46	-1622510.22	-1622509.98	0.0066	0.0022
Jupiter	-9154-05-22 04:33 J	-1621934.52	-1621934.31	-1621934.10	0.0523	0.0231
Mars	-9149-10-20 07:55 J	-1619956.36	-1619956.17	-1619955.99	0.1618	0.0233
Jupiter	-9142-05-27 12:14 J	-1617546.20	-1617545.99	-1617545.77	0.0524	0.0172
Saturn	-9141-06-21 11:16 J	-1617155.24	-1617155.03	-1617154.81	0.0298	0.0117
Uranus	-9131-11-25 15:50 J	-1613345.91	-1613345.84	-1613345.76	0.0146	0.0138
Uranus	-9130-11-30 21:50 J	-1612975.76	-1612975.59	-1612975.38	0.0146	0.0098
Uranus	-9129-12-04 19:55 J	-1612605.91	-1612605.67	-1612605.43	0.0146	0.0035
Uranus	-9128-12-10 04:47 J	-1612235.55	-1612235.30	-1612235.04	0.0146	0.0022
Saturn	-9128-12-14 07:26 J	-1612231.43	-1612231.19	-1612230.94	0.0265	0.0014
Uranus	-9127-12-15 01:26 J	-1611865.65	-1611865.44	-1611865.21	0.0146	0.0067
Uranus	-9126-12-20 12:14 J	-1611495.07	-1611494.99	-1611494.88	0.0146	0.0135

Jupiter	-9125-11-16 05:31 J	-1611163.47	-1611163.27	-1611163.07	0.0503	0.0216
Jupiter	-9113-11-20 17:45 J	-1606776.00	-1606775.76	-1606775.53	0.0502	0.0093
Saturn	-9112-06-15 12:28 J	-1606569.09	-1606568.98	-1606568.85	0.0297	0.0259
Neptune	-9108-12-06 02:09 J	-1604934.51	-1604934.41	-1604934.26	0.0088	0.0076
Neptune	-9107-12-08 09:21 J	-1604567.33	-1604567.11	-1604566.89	0.0088	0.0048
Neptune	-9106-12-11 03:07 J	-1604199.63	-1604199.37	-1604199.12	0.0088	0.0005
Neptune	-9105-12-12 07:12 J	-1603832.44	-1603832.20	-1603831.94	0.0088	0.0023
Neptune	-9104-12-15 01:12 J	-1603464.60	-1603464.45	-1603464.25	0.0088	0.0066
Jupiter	-9101-11-25 02:24 J	-1602388.49	-1602388.40	-1602388.30	0.0501	0.0451
Uranus	-9089-06-01 02:24 J	-1598182.47	-1598182.40	-1598182.27	0.0132	0.0123
Uranus	-9088-06-05 05:45 J	-1597813.44	-1597813.26	-1597813.06	0.0132	0.0083
Uranus	-9087-06-09 14:52 J	-1597444.12	-1597443.88	-1597443.62	0.0132	0.0037
Uranus	-9086-06-13 17:02 J	-1597075.04	-1597074.79	-1597074.54	0.0132	0.0008
Uranus	-9085-06-17 01:12 J	-1596705.68	-1596705.45	-1596705.19	0.0132	0.0046
Uranus	-9084-06-21 02:38 J	-1596336.58	-1596336.39	-1596336.17	0.0132	0.0073
Uranus	-9083-06-25 11:02 J	-1595967.10	-1595967.04	-1595966.92	0.0132	0.0124
Saturn	-9082-06-24 06:43 J	-1595603.37	-1595603.22	-1595603.06	0.0298	0.0224
Jupiter	-9071-05-21 15:07 J	-1591619.05	-1591618.87	-1591618.67	0.0523	0.0290
Mars	-9070-10-23 11:16 J	-1591099.18	-1591099.03	-1591098.88	0.1618	0.1037
Pluto	-9069-04-26 14:52 J	-1590912.92	-1590912.88	-1590912.78	0.0078	0.0076
Saturn	-9069-12-15 16:47 J	-1590680.04	-1590679.80	-1590679.55	0.0264	0.0065
Jupiter	-9059-05-26 09:21 J	-1587231.34	-1587231.11	-1587230.87	0.0523	0.0102
Saturn	-9053-06-16 21:07 J	-1585017.82	-1585017.62	-1585017.40	0.0297	0.0164
Jupiter	-9047-05-31 10:04 J	-1582843.18	-1582843.08	-1582842.97	0.0524	0.0457
Uranus	-9046-12-01 03:50 J	-1582294.54	-1582294.34	-1582294.11	0.0146	0.0082
Uranus	-9045-12-05 02:38 J	-1581924.62	-1581924.39	-1581924.14	0.0146	0.0037
Uranus	-9044-12-10 10:47 J	-1581554.30	-1581554.05	-1581553.79	0.0146	0.0020
Uranus	-9043-12-15 08:24 J	-1581184.35	-1581184.15	-1581183.93	0.0146	0.0082
Jupiter	-9042-11-16 11:31 J	-1580848.22	-1580848.02	-1580847.82	0.0503	0.0278
Uranus	-9042-12-20 19:26 J	-1580813.82	-1580813.69	-1580813.54	0.0146	0.0122

Saturn	-9040-12-10 18:00 J	-1580092.90	-1580092.75	-1580092.58	0.0266	0.0194
Jupiter	-9030-11-20 19:55 J	-1576460.90	-1576460.67	-1576460.44	0.0502	0.0039
Neptune	-9024-06-12 04:04 J	-1574430.46	-1574430.33	-1574430.15	0.0089	0.0070
Neptune	-9023-06-14 11:16 J	-1574063.28	-1574063.03	-1574062.78	0.0089	0.0025
Mars	-9023-10-18 00:00 J	-1573937.54	-1573937.50	-1573937.46	0.1616	0.1571
Neptune	-9022-06-17 06:00 J	-1573695.50	-1573695.25	-1573694.99	0.0089	0.0002
Neptune	-9021-06-18 10:19 J	-1573328.26	-1573328.07	-1573327.83	0.0089	0.0046
Neptune	-9020-06-21 05:02 J	-1572960.42	-1572960.29	-1572960.13	0.0089	0.0073
Jupiter	-9018-11-25 09:50 J	-1572073.24	-1572073.09	-1572072.94	0.0501	0.0389
Saturn	-9010-12-17 18:57 J	-1569128.92	-1569128.71	-1569128.49	0.0264	0.0134
Uranus	-9005-06-01 12:00 J	-1567501.12	-1567501.00	-1567500.86	0.0133	0.0115
Uranus	-9004-06-05 16:33 J	-1567132.01	-1567131.81	-1567131.60	0.0132	0.0076
Uranus	-9003-06-10 00:57 J	-1566762.71	-1566762.46	-1566762.21	0.0132	0.0041
Uranus	-9002-06-14 04:19 J	-1566393.56	-1566393.32	-1566393.07	0.0132	0.0009
Uranus	-9001-06-17 12:14 J	-1566024.23	-1566023.99	-1566023.73	0.0132	0.0037

9TH MILLENNIUM BCE

This is a list of transits of Moon in the 9th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-9000-06-21 15:07 J	-1565655.05	-1565654.87	-1565654.69	0.0132	0.0090		
Mars	-8999-04-25 19:55 J	-1565346.87	-1565346.67	-1565346.47	0.1906	0.0951		
Uranus	-8999-06-25 22:33 J	-1565285.66	-1565285.56	-1565285.43	0.0132	0.0118		
Saturn	-8994-06-19 02:24 J	-1563466.63	-1563466.40	-1563466.17	0.0298	0.0084		

Jupiter	-8988-05-20 11:45 J	-1561304.18	-1561304.01	-1561303.82	0.0522	0.0355
Saturn	-8981-12-12 03:07 J	-1558541.57	-1558541.37	-1558541.16	0.0265	0.0126
Jupiter	-8976-05-25 12:28 J	-1556916.20	-1556915.98	-1556915.75	0.0523	0.0022
Jupiter	-8964-05-30 15:21 J	-1552528.02	-1552527.86	-1552527.70	0.0524	0.0385
Uranus	-8963-11-26 07:40 J	-1551983.28	-1551983.18	-1551983.07	0.0146	0.0131
Uranus	-8962-12-01 11:02 J	-1551613.24	-1551613.04	-1551612.83	0.0146	0.0091
Uranus	-8961-12-05 10:47 J	-1551243.29	-1551243.05	-1551242.80	0.0146	0.0027
Uranus	-8960-12-10 17:45 J	-1550873.01	-1550872.76	-1550872.50	0.0146	0.0026
Jupiter	-8959-11-15 12:00 J	-1550533.16	-1550533.00	-1550532.83	0.0503	0.0337
Uranus	-8959-12-15 15:50 J	-1550503.04	-1550502.84	-1550502.61	0.0146	0.0074
Uranus	-8958-12-21 01:26 J	-1550132.49	-1550132.44	-1550132.35	0.0146	0.0140
Saturn	-8951-12-18 20:52 J	-1547577.78	-1547577.63	-1547577.46	0.0264	0.0197
Jupiter	-8947-11-20 06:00 J	-1546145.48	-1546145.25	-1546145.01	0.0502	0.0020
Mars	-8944-10-20 03:21 J	-1545080.53	-1545080.36	-1545080.19	0.1616	0.0613
Neptune	-8943-12-08 00:43 J	-1544666.65	-1544666.47	-1544666.27	0.0088	0.0060
Neptune	-8942-12-10 04:47 J	-1544299.52	-1544299.30	-1544299.04	0.0088	0.0030
Neptune	-8941-12-11 23:02 J	-1543931.80	-1543931.54	-1543931.28	0.0088	0.0011
Neptune	-8940-12-14 04:19 J	-1543564.52	-1543564.32	-1543564.07	0.0088	0.0041
Neptune	-8939-12-16 18:43 J	-1543196.81	-1543196.72	-1543196.58	0.0088	0.0080
Saturn	-8935-06-20 07:12 J	-1541915.43	-1541915.20	-1541914.96	0.0298	0.0014
Jupiter	-8935-11-24 10:04 J	-1541758.24	-1541758.08	-1541757.90	0.0502	0.0347
Saturn	-8922-12-14 06:00 J	-1536990.49	-1536990.25	-1536990.01	0.0265	0.0064
Uranus	-8921-06-01 20:38 J	-1536819.76	-1536819.64	-1536819.50	0.0133	0.0115
Uranus	-8920-06-06 02:38 J	-1536450.59	-1536450.39	-1536450.18	0.0133	0.0074
Uranus	-8919-06-10 09:35 J	-1536081.36	-1536081.10	-1536080.84	0.0132	0.0030
Uranus	-8918-06-14 14:09 J	-1535712.15	-1535711.91	-1535711.66	0.0132	0.0003
Uranus	-8917-06-17 20:52 J	-1535342.87	-1535342.63	-1535342.39	0.0132	0.0053
Uranus	-8916-06-22 00:43 J	-1534973.65	-1534973.47	-1534973.27	0.0132	0.0081
Uranus	-8915-06-26 07:40 J	-1534604.21	-1534604.18	-1534604.14	0.0132	0.0131
Pluto	-8909-10-24 21:50 J	-1532291.83	-1532291.59	-1532291.33	0.0066	0.0011

Jupiter	-8905-05-19 21:07 J	-1530988.76	-1530988.62	-1530988.48	0.0522	0.0409
Jupiter	-8893-05-25 00:00 J	-1526600.74	-1526600.50	-1526600.25	0.0524	0.0030
Saturn	-8892-12-19 23:45 J	-1526026.57	-1526026.51	-1526026.43	0.0264	0.0251
Jupiter	-8881-05-29 20:52 J	-1522212.80	-1522212.63	-1522212.46	0.0524	0.0342
Uranus	-8879-11-26 18:14 J	-1521301.80	-1521301.74	-1521301.67	0.0146	0.0140
Uranus	-8878-12-01 19:40 J	-1520931.89	-1520931.68	-1520931.44	0.0146	0.0073
Uranus	-8877-12-05 20:38 J	-1520561.87	-1520561.64	-1520561.39	0.0146	0.0030
Saturn	-8876-06-21 06:57 J	-1520364.45	-1520364.21	-1520363.97	0.0298	0.0046
Jupiter	-8876-11-15 04:04 J	-1520217.48	-1520217.33	-1520217.18	0.0503	0.0383
Uranus	-8876-12-11 02:24 J	-1520191.65	-1520191.40	-1520191.13	0.0146	0.0029
Uranus	-8875-12-16 01:26 J	-1519821.62	-1519821.44	-1519821.22	0.0146	0.0088
Uranus	-8874-12-21 10:47 J	-1519451.16	-1519451.05	-1519450.92	0.0146	0.0128
Mars	-8865-10-21 23:16 J	-1516223.68	-1516223.53	-1516223.38	0.1616	0.0820
Jupiter	-8864-11-19 09:50 J	-1515830.32	-1515830.09	-1515829.85	0.0503	0.0059
Saturn	-8863-12-15 00:14 J	-1515439.75	-1515439.49	-1515439.23	0.0265	0.0014
Neptune	-8860-06-11 07:55 J	-1514530.25	-1514530.17	-1514530.06	0.0089	0.0082
Neptune	-8859-06-14 02:38 J	-1514162.58	-1514162.39	-1514162.16	0.0089	0.0050
Neptune	-8858-06-16 07:55 J	-1513795.42	-1513795.17	-1513794.91	0.0089	0.0012
Neptune	-8857-06-18 02:09 J	-1513427.66	-1513427.41	-1513427.15	0.0089	0.0020
Neptune	-8856-06-20 08:52 J	-1513060.30	-1513060.13	-1513059.93	0.0089	0.0060
Jupiter	-8852-11-24 05:16 J	-1511442.44	-1511442.28	-1511442.10	0.0502	0.0329
Uranus	-8837-06-02 04:47 J	-1506138.44	-1506138.30	-1506138.12	0.0133	0.0106
Uranus	-8836-06-06 12:28 J	-1505769.18	-1505768.98	-1505768.76	0.0133	0.0069
Uranus	-8835-06-10 18:43 J	-1505399.97	-1505399.72	-1505399.46	0.0133	0.0032
Uranus	-8834-06-15 01:12 J	-1505030.69	-1505030.45	-1505030.20	0.0132	0.0016
Uranus	-8833-06-18 06:57 J	-1504661.45	-1504661.21	-1504660.95	0.0132	0.0044
Uranus	-8832-06-22 12:28 J	-1504292.13	-1504291.98	-1504291.80	0.0132	0.0097
Uranus	-8831-06-26 17:45 J	-1503922.83	-1503922.76	-1503922.65	0.0133	0.0125
Pluto	-8822-04-29 11:31 J	-1500694.26	-1500694.02	-1500693.76	0.0078	0.0013
Jupiter	-8822-05-20 09:21 J	-1500673.23	-1500673.11	-1500672.97	0.0522	0.0442

Saturn	-8817-06-21 20:38 J	-1498813.87	-1498813.64	-1498813.40	0.0298	0.0101
Jupiter	-8810-05-25 06:00 J	-1496285.47	-1496285.25	-1496285.02	0.0523	0.0077
Saturn	-8804-12-15 14:52 J	-1493889.12	-1493888.88	-1493888.63	0.0265	0.0031
Jupiter	-8798-05-30 12:14 J	-1491897.18	-1491896.99	-1491896.79	0.0524	0.0295
Uranus	-8795-11-27 07:26 J	-1490620.30	-1490620.19	-1490620.03	0.0146	0.0121
Uranus	-8794-12-02 08:24 J	-1490250.35	-1490250.15	-1490249.92	0.0146	0.0081
Jupiter	-8793-11-14 10:33 J	-1489902.18	-1489902.06	-1489901.93	0.0504	0.0420
Uranus	-8793-12-06 10:33 J	-1489880.30	-1489880.06	-1489879.82	0.0146	0.0015
Uranus	-8792-12-11 15:07 J	-1489510.12	-1489509.87	-1489509.61	0.0146	0.0034
Uranus	-8791-12-16 15:07 J	-1489140.07	-1489139.87	-1489139.66	0.0146	0.0083
Saturn	-8788-06-15 11:16 J	-1488228.06	-1488228.03	-1488227.98	0.0295	0.0291
Mars	-8786-10-24 16:33 J	-1487366.86	-1487366.81	-1487366.75	0.1617	0.1522
Jupiter	-8781-11-19 04:04 J	-1485514.56	-1485514.33	-1485514.11	0.0502	0.0089
Neptune	-8779-12-07 02:09 J	-1484766.51	-1484766.41	-1484766.26	0.0088	0.0077
Neptune	-8778-12-09 19:55 J	-1484398.88	-1484398.67	-1484398.44	0.0088	0.0050
Neptune	-8777-12-11 02:52 J	-1484031.62	-1484031.38	-1484031.13	0.0088	0.0007
Neptune	-8776-12-13 16:47 J	-1483664.05	-1483663.80	-1483663.53	0.0088	0.0020
Saturn	-8775-12-10 22:33 J	-1483301.65	-1483301.56	-1483301.44	0.0267	0.0241
Neptune	-8775-12-16 03:50 J	-1483296.48	-1483296.34	-1483296.14	0.0088	0.0064
Jupiter	-8769-11-23 12:00 J	-1481127.19	-1481127.00	-1481126.80	0.0501	0.0292
Saturn	-8758-06-23 09:35 J	-1477263.30	-1477263.10	-1477262.89	0.0298	0.0158
Uranus	-8753-06-02 14:09 J	-1475457.04	-1475456.91	-1475456.74	0.0133	0.0108
Uranus	-8752-06-06 23:02 J	-1475087.74	-1475087.54	-1475087.31	0.0133	0.0065
Uranus	-8751-06-11 04:04 J	-1474718.59	-1474718.33	-1474718.07	0.0133	0.0023
Uranus	-8750-06-15 11:31 J	-1474349.26	-1474349.02	-1474348.77	0.0133	0.0010
Uranus	-8749-06-18 15:50 J	-1473980.06	-1473979.84	-1473979.59	0.0133	0.0061
Uranus	-8748-06-22 22:47 J	-1473610.73	-1473610.55	-1473610.36	0.0133	0.0088
Saturn	-8745-12-16 10:33 J	-1472338.29	-1472338.06	-1472337.83	0.0265	0.0071
Jupiter	-8739-05-19 14:09 J	-1470357.98	-1470357.91	-1470357.82	0.0522	0.0487
Mars	-8739-10-18 22:19 J	-1470205.71	-1470205.57	-1470205.44	0.1615	0.1090

Saturn	-8729-06-16 06:57 J	-1466677.35	-1466677.21	-1466677.06	0.0295	0.0236
Jupiter	-8727-05-24 22:19 J	-1465969.80	-1465969.57	-1465969.34	0.0523	0.0124
Saturn	-8716-12-11 13:26 J	-1461751.10	-1461750.94	-1461750.76	0.0267	0.0200
Mars	-8715-04-24 09:21 J	-1461617.30	-1461617.11	-1461616.92	0.1908	0.0279
Jupiter	-8715-05-29 15:21 J	-1461582.06	-1461581.86	-1461581.65	0.0525	0.0255
Uranus	-8711-11-27 20:24 J	-1459938.75	-1459938.65	-1459938.51	0.0146	0.0128
Jupiter	-8710-11-15 05:31 J	-1459586.35	-1459586.27	-1459586.17	0.0503	0.0460
Uranus	-8710-12-02 19:55 J	-1459568.89	-1459568.67	-1459568.41	0.0146	0.0061
Uranus	-8709-12-06 23:16 J	-1459198.77	-1459198.53	-1459198.28	0.0146	0.0019
Uranus	-8708-12-12 02:52 J	-1458828.63	-1458828.38	-1458828.12	0.0146	0.0040
Uranus	-8707-12-17 03:50 J	-1458458.52	-1458458.34	-1458458.15	0.0146	0.0097
Uranus	-8706-12-22 10:47 J	-1458088.12	-1458088.05	-1458087.95	0.0146	0.0138
Saturn	-8699-06-24 06:00 J	-1455712.41	-1455712.25	-1455712.09	0.0297	0.0215
Jupiter	-8698-11-19 12:43 J	-1455199.20	-1455198.97	-1455198.73	0.0502	0.0120
Neptune	-8695-06-13 05:16 J	-1454262.41	-1454262.28	-1454262.11	0.0089	0.0071
Neptune	-8694-06-15 23:16 J	-1453894.78	-1453894.53	-1453894.28	0.0089	0.0026
Neptune	-8693-06-17 07:26 J	-1453527.44	-1453527.19	-1453526.94	0.0089	0.0001
Neptune	-8692-06-19 21:07 J	-1453159.84	-1453159.62	-1453159.38	0.0089	0.0044
Neptune	-8691-06-22 09:50 J	-1452792.23	-1452792.09	-1452791.93	0.0089	0.0071
Jupiter	-8686-11-24 01:55 J	-1450811.61	-1450811.42	-1450811.23	0.0502	0.0264
Saturn	-8686-12-18 08:52 J	-1450787.34	-1450787.13	-1450786.91	0.0265	0.0113
Saturn	-8670-06-17 23:45 J	-1445126.71	-1445126.51	-1445126.31	0.0295	0.0177
Uranus	-8669-06-02 23:31 J	-1444775.68	-1444775.52	-1444775.32	0.0133	0.0096
Uranus	-8668-06-07 10:04 J	-1444406.30	-1444406.08	-1444405.86	0.0133	0.0061
Uranus	-8667-06-11 13:40 J	-1444037.18	-1444036.93	-1444036.66	0.0132	0.0023
Uranus	-8666-06-15 22:47 J	-1443667.78	-1443667.55	-1443667.30	0.0132	0.0024
Uranus	-8665-06-19 02:09 J	-1443298.64	-1443298.41	-1443298.15	0.0132	0.0053
Uranus	-8664-06-23 10:19 J	-1442929.21	-1442929.07	-1442928.91	0.0133	0.0105
Uranus	-8663-06-27 12:57 J	-1442559.98	-1442559.96	-1442559.90	0.0133	0.0131
Pluto	-8663-10-26 00:43 J	-1442439.64	-1442439.47	-1442439.24	0.0066	0.0044

Pluto	-8662-10-27 15:07 J	-1442072.90	-1442072.87	-1442072.79	0.0067	0.0065
Mars	-8660-10-21 03:07 J	-1441348.56	-1441348.37	-1441348.17	0.1615	0.0193
Saturn	-8657-12-12 02:52 J	-1440200.58	-1440200.38	-1440200.18	0.0267	0.0159
Jupiter	-8644-05-24 00:00 J	-1435654.72	-1435654.50	-1435654.27	0.0523	0.0174
Saturn	-8640-06-25 07:12 J	-1434161.26	-1434161.20	-1434161.11	0.0297	0.0281
Jupiter	-8632-05-29 08:24 J	-1431266.35	-1431266.15	-1431265.94	0.0524	0.0223
Jupiter	-8627-11-14 12:43 J	-1429270.98	-1429270.97	-1429270.96	0.0503	0.0503
Uranus	-8627-11-28 08:38 J	-1429257.29	-1429257.14	-1429256.97	0.0146	0.0109
Saturn	-8627-12-19 03:07 J	-1429236.58	-1429236.37	-1429236.17	0.0265	0.0157
Uranus	-8626-12-03 07:12 J	-1428887.41	-1428887.20	-1428886.95	0.0146	0.0070
Uranus	-8625-12-07 11:45 J	-1428517.26	-1428517.01	-1428516.77	0.0146	0.0004
Uranus	-8624-12-12 13:55 J	-1428147.16	-1428146.92	-1428146.66	0.0146	0.0044
Uranus	-8623-12-17 15:50 J	-1427777.02	-1427776.84	-1427776.64	0.0146	0.0094
Jupiter	-8615-11-19 01:55 J	-1424883.63	-1424883.42	-1424883.20	0.0503	0.0150
Neptune	-8614-12-09 02:09 J	-1424498.58	-1424498.41	-1424498.23	0.0088	0.0062
Neptune	-8613-12-10 14:38 J	-1424131.14	-1424130.89	-1424130.64	0.0088	0.0030
Neptune	-8612-12-13 02:52 J	-1423763.62	-1423763.38	-1423763.13	0.0088	0.0008
Saturn	-8611-06-18 18:28 J	-1423575.96	-1423575.73	-1423575.49	0.0295	0.0108
Neptune	-8611-12-15 10:33 J	-1423396.28	-1423396.06	-1423395.81	0.0088	0.0040
Neptune	-8610-12-18 03:07 J	-1423028.46	-1423028.37	-1423028.22	0.0088	0.0078
Jupiter	-8603-11-23 16:04 J	-1420496.05	-1420495.83	-1420495.62	0.0501	0.0232
Saturn	-8598-12-14 00:14 J	-1418649.70	-1418649.49	-1418649.27	0.0267	0.0109
Uranus	-8586-05-31 06:00 J	-1414463.29	-1414463.25	-1414463.18	0.0133	0.0129
Uranus	-8585-06-03 09:21 J	-1414094.28	-1414094.11	-1414093.94	0.0133	0.0099
Uranus	-8584-06-07 20:09 J	-1413724.87	-1413724.66	-1413724.42	0.0133	0.0055
Uranus	-8583-06-11 22:33 J	-1413355.81	-1413355.56	-1413355.29	0.0132	0.0016
Uranus	-8582-06-16 08:38 J	-1412986.38	-1412986.14	-1412985.89	0.0132	0.0019
Uranus	-8581-06-19 10:19 J	-1412617.28	-1412617.07	-1412616.83	0.0132	0.0068
Mars	-8581-10-23 09:35 J	-1412491.21	-1412491.10	-1412490.99	0.1616	0.1322
Uranus	-8580-06-23 19:26 J	-1412247.85	-1412247.69	-1412247.51	0.0132	0.0095

Pluto	-8575-05-01 08:24 J	-1410475.29	-1410475.15	-1410474.96	0.0078	0.0058
Saturn	-8568-12-19 20:09 J	-1407685.82	-1407685.66	-1407685.50	0.0265	0.0208
Jupiter	-8561-05-23 12:43 J	-1405339.18	-1405338.97	-1405338.77	0.0523	0.0233
Saturn	-8552-06-20 00:00 J	-1402024.73	-1402024.50	-1402024.26	0.0295	0.0028
Jupiter	-8549-05-28 09:07 J	-1400951.35	-1400951.12	-1400950.89	0.0524	0.0163
Uranus	-8543-11-28 16:47 J	-1398575.94	-1398575.80	-1398575.65	0.0146	0.0117
Uranus	-8542-12-03 13:40 J	-1398206.16	-1398205.93	-1398205.67	0.0146	0.0051
Uranus	-8541-12-07 19:26 J	-1397835.93	-1397835.69	-1397835.44	0.0146	0.0010
Uranus	-8540-12-12 20:09 J	-1397465.90	-1397465.66	-1397465.40	0.0146	0.0050
Saturn	-8539-12-15 03:50 J	-1397098.57	-1397098.34	-1397098.10	0.0267	0.0051
Uranus	-8539-12-17 23:16 J	-1397095.68	-1397095.53	-1397095.34	0.0146	0.0104
Uranus	-8538-12-23 04:19 J	-1396725.34	-1396725.32	-1396725.30	0.0146	0.0145
Jupiter	-8532-11-18 14:38 J	-1394568.11	-1394567.89	-1394567.67	0.0502	0.0183
Neptune	-8531-06-12 21:21 J	-1394361.69	-1394361.61	-1394361.49	0.0089	0.0082
Neptune	-8530-06-15 06:14 J	-1393994.44	-1393994.24	-1393994.02	0.0089	0.0049
Neptune	-8529-06-16 18:43 J	-1393626.98	-1393626.72	-1393626.45	0.0089	0.0012
Neptune	-8528-06-19 07:55 J	-1393259.40	-1393259.17	-1393258.91	0.0089	0.0021
Neptune	-8527-06-21 15:35 J	-1392892.03	-1392891.85	-1392891.63	0.0089	0.0058
Jupiter	-8520-11-22 18:28 J	-1390180.94	-1390180.73	-1390180.52	0.0502	0.0185
Uranus	-8501-06-03 17:45 J	-1383412.94	-1383412.76	-1383412.54	0.0133	0.0086
Uranus	-8500-06-08 06:00 J	-1383043.46	-1383043.25	-1383043.01	0.0133	0.0054
Uranus	-8499-06-12 07:55 J	-1382674.43	-1382674.17	-1382673.91	0.0132	0.0013
Uranus	-8498-06-16 18:57 J	-1382304.94	-1382304.71	-1382304.46	0.0132	0.0031
Uranus	-8497-06-19 19:55 J	-1381935.89	-1381935.67	-1381935.43	0.0132	0.0060
Uranus	-8496-06-24 06:00 J	-1381566.37	-1381566.25	-1381566.11	0.0132	0.0112
Saturn	-8493-06-21 14:24 J	-1380473.13	-1380472.90	-1380472.67	0.0296	0.0070
Saturn	-8480-12-16 08:52 J	-1375547.38	-1375547.13	-1375546.88	0.0267	0.0017
Jupiter	-8478-05-23 06:14 J	-1375024.43	-1375024.24	-1375024.04	0.0523	0.0320
Jupiter	-8466-05-28 09:07 J	-1370636.35	-1370636.12	-1370635.90	0.0524	0.0088
Saturn	-8464-06-15 12:14 J	-1369887.04	-1369886.99	-1369886.93	0.0293	0.0285

Uranus	-8459-11-28 23:02 J	-1367894.70	-1367894.54	-1367894.34	0.0146	0.0102
Uranus	-8458-12-03 19:26 J	-1367524.91	-1367524.69	-1367524.44	0.0146	0.0063
Uranus	-8457-12-08 02:24 J	-1367154.65	-1367154.40	-1367154.16	0.0146	0.0005
Uranus	-8456-12-13 01:12 J	-1366784.68	-1366784.45	-1366784.19	0.0146	0.0048
Mars	-8455-10-20 12:00 J	-1366473.16	-1366473.00	-1366472.84	0.1615	0.0559
Uranus	-8455-12-18 06:00 J	-1366414.42	-1366414.25	-1366414.06	0.0146	0.0101
Saturn	-8451-12-11 02:52 J	-1364960.46	-1364960.38	-1364960.30	0.0269	0.0252
Neptune	-8450-12-08 12:57 J	-1364598.08	-1364597.96	-1364597.80	0.0088	0.0076
Jupiter	-8449-11-17 12:14 J	-1364253.18	-1364252.99	-1364252.79	0.0503	0.0244
Neptune	-8449-12-10 02:24 J	-1364230.58	-1364230.40	-1364230.17	0.0088	0.0051
Neptune	-8448-12-12 10:04 J	-1363863.34	-1363863.08	-1363862.81	0.0088	0.0007
Neptune	-8447-12-15 03:07 J	-1363495.61	-1363495.37	-1363495.11	0.0088	0.0019
Neptune	-8446-12-17 07:26 J	-1363128.35	-1363128.19	-1363127.99	0.0088	0.0063
Jupiter	-8437-11-22 06:00 J	-1359865.47	-1359865.25	-1359865.03	0.0502	0.0132
Saturn	-8434-06-24 08:09 J	-1358921.34	-1358921.16	-1358920.95	0.0296	0.0179
Mars	-8431-04-23 20:52 J	-1357886.81	-1357886.63	-1357886.46	0.1909	0.0989
Jupiter	-8425-11-26 10:19 J	-1355478.16	-1355478.07	-1355477.96	0.0501	0.0449
Saturn	-8421-12-17 12:43 J	-1353996.21	-1353995.97	-1353995.73	0.0267	0.0091
Uranus	-8418-06-01 00:14 J	-1353100.57	-1353100.49	-1353100.36	0.0133	0.0120
Uranus	-8417-06-04 01:55 J	-1352731.60	-1352731.42	-1352731.22	0.0133	0.0092
Uranus	-8416-06-08 14:52 J	-1352362.11	-1352361.88	-1352361.64	0.0133	0.0045
Pluto	-8416-10-27 23:16 J	-1352220.78	-1352220.53	-1352220.26	0.0066	0.0014
Uranus	-8415-06-12 15:21 J	-1351993.12	-1351992.86	-1351992.60	0.0133	0.0009
Uranus	-8414-06-17 03:07 J	-1351623.61	-1351623.37	-1351623.12	0.0133	0.0027
Uranus	-8413-06-20 03:07 J	-1351254.58	-1351254.37	-1351254.15	0.0133	0.0074
Uranus	-8412-06-24 14:09 J	-1350885.07	-1350884.91	-1350884.75	0.0133	0.0101
Saturn	-8405-06-17 05:02 J	-1348335.48	-1348335.29	-1348335.09	0.0294	0.0174
Jupiter	-8395-05-22 09:21 J	-1344709.25	-1344709.11	-1344708.95	0.0523	0.0395
Saturn	-8392-12-12 15:07 J	-1343409.04	-1343408.87	-1343408.68	0.0269	0.0175
Jupiter	-8383-05-27 10:47 J	-1340321.29	-1340321.05	-1340320.81	0.0523	0.0013

Mars	-8376-10-22 06:28 J	-1337616.41	-1337616.23	-1337616.05	0.1615	0.0213
Uranus	-8375-11-29 05:45 J	-1337213.40	-1337213.26	-1337213.08	0.0146	0.0110
Uranus	-8374-12-04 00:57 J	-1336843.70	-1336843.46	-1336843.21	0.0146	0.0044
Uranus	-8373-12-08 08:24 J	-1336473.39	-1336473.15	-1336472.90	0.0146	0.0006
Uranus	-8372-12-13 06:00 J	-1336103.48	-1336103.25	-1336103.00	0.0146	0.0057
Jupiter	-8371-06-01 04:04 J	-1335933.45	-1335933.33	-1335933.21	0.0524	0.0444
Uranus	-8371-12-18 11:45 J	-1335733.16	-1335733.01	-1335732.82	0.0146	0.0106
Neptune	-8366-06-14 16:47 J	-1334093.94	-1334093.80	-1334093.61	0.0089	0.0070
Jupiter	-8366-11-17 23:16 J	-1333937.71	-1333937.53	-1333937.34	0.0503	0.0293
Neptune	-8365-06-16 08:09 J	-1333726.39	-1333726.16	-1333725.91	0.0089	0.0026
Neptune	-8364-06-18 15:21 J	-1333359.12	-1333358.86	-1333358.60	0.0089	0.0001
Neptune	-8363-06-21 08:52 J	-1332991.33	-1332991.13	-1332990.89	0.0089	0.0045
Neptune	-8362-06-23 14:09 J	-1332624.06	-1332623.91	-1332623.75	0.0089	0.0070
Saturn	-8362-12-19 18:43 J	-1332444.90	-1332444.72	-1332444.52	0.0267	0.0170
Jupiter	-8354-11-22 02:52 J	-1329550.61	-1329550.38	-1329550.14	0.0502	0.0071
Saturn	-8346-06-20 06:00 J	-1326783.48	-1326783.25	-1326783.02	0.0294	0.0056
Jupiter	-8342-11-26 16:33 J	-1325162.96	-1325162.81	-1325162.66	0.0501	0.0375
Uranus	-8334-06-01 08:24 J	-1322419.20	-1322419.15	-1322419.08	0.0133	0.0129
Uranus	-8333-06-04 09:07 J	-1322050.32	-1322050.12	-1322049.90	0.0133	0.0077
Saturn	-8333-12-14 07:12 J	-1321857.43	-1321857.20	-1321856.97	0.0268	0.0090
Uranus	-8332-06-08 22:47 J	-1321680.78	-1321680.55	-1321680.31	0.0133	0.0048
Uranus	-8331-06-12 23:02 J	-1321311.80	-1321311.54	-1321311.28	0.0133	0.0005
Uranus	-8330-06-17 11:45 J	-1320942.24	-1320942.01	-1320941.76	0.0133	0.0036
Pluto	-8329-05-01 09:21 J	-1320623.35	-1320623.11	-1320622.84	0.0078	0.0026
Uranus	-8329-06-20 11:02 J	-1320573.25	-1320573.04	-1320572.80	0.0133	0.0067
Uranus	-8328-06-24 22:47 J	-1320203.64	-1320203.55	-1320203.41	0.0133	0.0118
Jupiter	-8312-05-21 05:45 J	-1314394.34	-1314394.26	-1314394.17	0.0522	0.0483
Saturn	-8303-12-21 08:09 J	-1310893.22	-1310893.16	-1310893.09	0.0266	0.0255
Jupiter	-8300-05-25 21:07 J	-1310006.84	-1310006.62	-1310006.39	0.0523	0.0095
Uranus	-8291-11-29 15:50 J	-1306532.02	-1306531.84	-1306531.64	0.0146	0.0094

Uranus	-8290-12-04 10:19 J	-1306162.30	-1306162.07	-1306161.82	0.0146	0.0055
Uranus	-8289-12-08 18:28 J	-1305791.98	-1305791.73	-1305791.48	0.0146	0.0012
Jupiter	-8288-05-31 04:33 J	-1305618.48	-1305618.31	-1305618.13	0.0524	0.0349
Uranus	-8288-12-13 14:52 J	-1305422.12	-1305421.88	-1305421.63	0.0146	0.0052
Saturn	-8287-06-22 07:26 J	-1305231.42	-1305231.19	-1305230.95	0.0295	0.0067
Uranus	-8287-12-18 21:21 J	-1305051.76	-1305051.61	-1305051.43	0.0146	0.0108
Neptune	-8285-12-09 08:24 J	-1304330.31	-1304330.15	-1304329.94	0.0088	0.0063
Neptune	-8284-12-12 02:24 J	-1303962.63	-1303962.40	-1303962.15	0.0088	0.0029
Jupiter	-8283-11-16 14:09 J	-1303623.07	-1303622.91	-1303622.75	0.0503	0.0369
Neptune	-8283-12-14 06:57 J	-1303595.47	-1303595.21	-1303594.96	0.0088	0.0008
Neptune	-8282-12-17 00:57 J	-1303227.68	-1303227.46	-1303227.22	0.0088	0.0040
Neptune	-8281-12-18 06:43 J	-1302860.33	-1302860.22	-1302860.08	0.0088	0.0077
Saturn	-8274-12-16 19:12 J	-1300305.95	-1300305.70	-1300305.44	0.0268	0.0004
Jupiter	-8271-11-21 06:28 J	-1299235.46	-1299235.23	-1299235.00	0.0502	0.0009
Jupiter	-8259-11-25 11:31 J	-1294848.21	-1294848.02	-1294847.82	0.0502	0.0296
Uranus	-8250-06-01 16:04 J	-1291737.95	-1291737.83	-1291737.67	0.0133	0.0112
Mars	-8250-10-19 18:57 J	-1291597.80	-1291597.71	-1291597.61	0.1614	0.1408
Uranus	-8249-06-04 16:33 J	-1291368.99	-1291368.81	-1291368.60	0.0133	0.0086
Uranus	-8248-06-09 06:43 J	-1290999.45	-1290999.22	-1290998.96	0.0133	0.0038
Uranus	-8247-06-13 06:28 J	-1290630.48	-1290630.23	-1290629.97	0.0133	0.0005
Uranus	-8246-06-17 19:26 J	-1290260.92	-1290260.69	-1290260.44	0.0133	0.0034
Uranus	-8245-06-20 18:28 J	-1289891.93	-1289891.73	-1289891.52	0.0133	0.0079
Saturn	-8245-12-10 21:21 J	-1289718.67	-1289718.61	-1289718.54	0.0269	0.0257
Uranus	-8244-06-25 06:57 J	-1289522.35	-1289522.21	-1289522.05	0.0133	0.0107
Saturn	-8228-06-24 04:19 J	-1283679.51	-1283679.32	-1283679.12	0.0295	0.0180
Jupiter	-8217-05-25 03:50 J	-1279691.56	-1279691.34	-1279691.11	0.0523	0.0157
Saturn	-8215-12-18 03:50 J	-1278754.58	-1278754.34	-1278754.09	0.0267	0.0083
Uranus	-8208-11-24 19:26 J	-1276220.71	-1276220.69	-1276220.64	0.0145	0.0144
Uranus	-8207-11-30 02:52 J	-1275850.55	-1275850.38	-1275850.18	0.0146	0.0099
Uranus	-8206-12-04 21:07 J	-1275480.87	-1275480.62	-1275480.38	0.0146	0.0035

Jupiter	-8205-05-29 20:38 J	-1275303.84	-1275303.64	-1275303.44	0.0524	0.0273
Uranus	-8205-12-09 05:16 J	-1275110.53	-1275110.28	-1275110.03	0.0146	0.0003
Uranus	-8204-12-14 00:57 J	-1274740.68	-1274740.46	-1274740.22	0.0146	0.0066
Uranus	-8203-12-19 08:38 J	-1274370.28	-1274370.14	-1274369.97	0.0146	0.0112
Neptune	-8202-06-14 06:43 J	-1274193.29	-1274193.22	-1274193.09	0.0089	0.0082
Neptune	-8201-06-15 13:55 J	-1273826.14	-1273825.92	-1273825.70	0.0089	0.0046
Neptune	-8200-06-18 08:38 J	-1273458.40	-1273458.14	-1273457.89	0.0089	0.0011
Jupiter	-8200-11-15 20:38 J	-1273307.75	-1273307.64	-1273307.53	0.0504	0.0439
Saturn	-8199-06-17 23:31 J	-1273093.70	-1273093.52	-1273093.33	0.0294	0.0185
Neptune	-8199-06-20 13:26 J	-1273091.18	-1273090.94	-1273090.69	0.0089	0.0022
Neptune	-8198-06-23 07:40 J	-1272723.36	-1272723.18	-1272722.97	0.0089	0.0058
Jupiter	-8188-11-20 04:04 J	-1268920.57	-1268920.33	-1268920.09	0.0503	0.0078
Saturn	-8186-12-13 13:26 J	-1268167.12	-1268166.94	-1268166.75	0.0268	0.0172
Jupiter	-8176-11-24 17:02 J	-1264532.99	-1264532.79	-1264532.59	0.0502	0.0229
Mars	-8171-10-22 01:12 J	-1262740.64	-1262740.45	-1262740.26	0.1614	0.0022
Pluto	-8170-10-29 04:47 J	-1262368.52	-1262368.30	-1262368.04	0.0066	0.0025
Saturn	-8169-06-25 17:45 J	-1262127.80	-1262127.76	-1262127.70	0.0296	0.0290
Uranus	-8166-06-02 01:12 J	-1261056.55	-1261056.45	-1261056.35	0.0133	0.0121
Uranus	-8165-06-05 01:26 J	-1260687.66	-1260687.44	-1260687.22	0.0133	0.0069
Uranus	-8164-06-09 15:35 J	-1260318.09	-1260317.85	-1260317.61	0.0133	0.0041
Uranus	-8163-06-13 15:07 J	-1259949.12	-1259948.87	-1259948.61	0.0133	0.0003
Uranus	-8162-06-18 04:47 J	-1259579.54	-1259579.30	-1259579.06	0.0133	0.0041
Uranus	-8161-06-21 03:21 J	-1259210.56	-1259210.36	-1259210.13	0.0133	0.0074
Uranus	-8160-06-25 16:19 J	-1258840.90	-1258840.82	-1258840.71	0.0133	0.0123
Saturn	-8156-12-19 13:40 J	-1257203.12	-1257202.93	-1257202.74	0.0267	0.0165
Saturn	-8140-06-19 17:16 J	-1251542.00	-1251541.78	-1251541.55	0.0294	0.0084
Jupiter	-8134-05-24 19:12 J	-1249376.91	-1249376.70	-1249376.49	0.0522	0.0232
Saturn	-8127-12-15 01:55 J	-1246615.65	-1246615.42	-1246615.19	0.0268	0.0091
Uranus	-8124-11-25 06:14 J	-1245539.29	-1245539.24	-1245539.14	0.0145	0.0139
Uranus	-8123-11-30 14:09 J	-1245169.11	-1245168.91	-1245168.70	0.0146	0.0084

Jupiter	-8122-05-29 22:33 J	-1244988.77	-1244988.56	-1244988.34	0.0523	0.0189
Uranus	-8122-12-05 08:09 J	-1244799.39	-1244799.16	-1244798.91	0.0146	0.0045
Neptune	-8121-12-09 02:52 J	-1244429.49	-1244429.38	-1244429.21	0.0088	0.0075
Uranus	-8121-12-09 17:02 J	-1244429.03	-1244428.79	-1244428.54	0.0146	0.0022
Neptune	-8120-12-11 07:12 J	-1244062.39	-1244062.20	-1244061.97	0.0088	0.0050
Uranus	-8120-12-14 12:00 J	-1244059.22	-1244059.00	-1244058.75	0.0146	0.0061
Neptune	-8119-12-14 01:12 J	-1243694.71	-1243694.45	-1243694.18	0.0088	0.0007
Uranus	-8119-12-19 20:38 J	-1243688.78	-1243688.64	-1243688.48	0.0146	0.0117
Neptune	-8118-12-16 07:12 J	-1243327.44	-1243327.20	-1243326.95	0.0088	0.0019
Jupiter	-8117-11-14 20:52 J	-1242992.68	-1242992.63	-1242992.57	0.0504	0.0489
Neptune	-8117-12-17 21:35 J	-1242959.79	-1242959.60	-1242959.41	0.0088	0.0062
Neptune	-8116-12-20 07:55 J	-1242592.17	-1242592.17	-1242592.15	0.0088	0.0088
Jupiter	-8105-11-19 06:57 J	-1238605.42	-1238605.21	-1238604.99	0.0503	0.0148
Saturn	-8097-12-21 00:57 J	-1235651.55	-1235651.46	-1235651.36	0.0266	0.0242
Jupiter	-8093-11-23 19:40 J	-1234217.90	-1234217.68	-1234217.44	0.0502	0.0152
Mars	-8092-10-23 22:47 J	-1233883.71	-1233883.55	-1233883.40	0.1614	0.0807
Uranus	-8082-06-02 09:21 J	-1230375.27	-1230375.11	-1230374.94	0.0133	0.0103
Uranus	-8081-06-05 09:50 J	-1230006.29	-1230006.09	-1230005.88	0.0133	0.0078
Saturn	-8081-06-21 04:19 J	-1229990.57	-1229990.32	-1229990.08	0.0295	0.0007
Jupiter	-8081-11-28 00:57 J	-1229830.54	-1229830.46	-1229830.37	0.0501	0.0460
Uranus	-8080-06-10 00:00 J	-1229636.75	-1229636.50	-1229636.25	0.0133	0.0029
Uranus	-8079-06-13 23:31 J	-1229267.77	-1229267.52	-1229267.26	0.0133	0.0003
Uranus	-8078-06-18 12:43 J	-1228898.20	-1228897.97	-1228897.72	0.0133	0.0042
Uranus	-8077-06-21 11:45 J	-1228529.20	-1228529.01	-1228528.82	0.0133	0.0085
Uranus	-8076-06-26 00:14 J	-1228159.60	-1228159.49	-1228159.34	0.0133	0.0114
Mars	-8068-04-26 08:38 J	-1225298.35	-1225298.14	-1225297.93	0.1910	0.0776
Saturn	-8068-12-16 06:00 J	-1225064.50	-1225064.25	-1225064.00	0.0268	0.0021
Jupiter	-8051-05-24 02:38 J	-1219061.58	-1219061.39	-1219061.19	0.0522	0.0290
Uranus	-8040-11-25 16:04 J	-1214857.90	-1214857.83	-1214857.72	0.0145	0.0135
Jupiter	-8039-05-29 00:14 J	-1214673.72	-1214673.49	-1214673.26	0.0524	0.0137

Uranus	-8039-11-30 23:16 J	-1214487.73	-1214487.53	-1214487.32	0.0146	0.0088
Uranus	-8038-12-05 17:16 J	-1214118.02	-1214117.78	-1214117.52	0.0146	0.0026
Neptune	-8037-06-15 07:55 J	-1213925.33	-1213925.17	-1213925.00	0.0089	0.0068
Uranus	-8037-12-10 01:55 J	-1213747.67	-1213747.42	-1213747.16	0.0146	0.0011
Neptune	-8036-06-17 13:12 J	-1213558.19	-1213557.95	-1213557.70	0.0089	0.0024
Uranus	-8036-12-14 20:52 J	-1213377.84	-1213377.63	-1213377.40	0.0146	0.0076
Neptune	-8035-06-20 07:40 J	-1213190.45	-1213190.18	-1213189.92	0.0089	0.0002
Uranus	-8035-12-20 06:00 J	-1213007.37	-1213007.25	-1213007.09	0.0146	0.0120
Neptune	-8034-06-22 14:09 J	-1212823.10	-1212822.91	-1212822.67	0.0089	0.0046
Neptune	-8033-06-24 04:19 J	-1212455.46	-1212455.32	-1212455.14	0.0089	0.0071
Jupiter	-8027-06-03 03:50 J	-1210285.39	-1210285.34	-1210285.27	0.0524	0.0503
Saturn	-8022-06-23 03:21 J	-1208439.60	-1208439.36	-1208439.11	0.0295	0.0079
Jupiter	-8022-11-19 15:21 J	-1208290.08	-1208289.86	-1208289.64	0.0503	0.0202
Jupiter	-8010-11-23 22:19 J	-1203902.79	-1203902.57	-1203902.34	0.0502	0.0098
Saturn	-8009-12-17 04:33 J	-1203513.56	-1203513.31	-1203513.06	0.0267	0.0039

8TH MILLENNIUM BCE

This is a list of transits of Moon in the 8th millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Uranus	-7998-06-02 17:45 J	-1199693.88	-1199693.76	-1199693.61	0.0133	0.0113		
Jupiter	-7998-11-28 17:45 J	-1199514.88	-1199514.76	-1199514.63	0.0502	0.0421		
Uranus	-7997-06-05 18:43 J	-1199324.94	-1199324.72	-1199324.49	0.0133	0.0061		
Uranus	-7996-06-10 08:09 J	-1198955.40	-1198955.16	-1198954.90	0.0133	0.0035		

Uranus	-7995-06-14 08:09 J	-1198586.40	-1198586.16	-1198585.90	0.0133	0.0012
Uranus	-7994-06-18 21:21 J	-1198216.84	-1198216.61	-1198216.36	0.0133	0.0047
Uranus	-7993-06-21 20:38 J	-1197847.83	-1197847.64	-1197847.43	0.0132	0.0082
Uranus	-7992-06-26 09:21 J	-1197478.15	-1197478.11	-1197478.03	0.0132	0.0129
Saturn	-7980-12-12 12:43 J	-1192926.08	-1192925.97	-1192925.84	0.0269	0.0233
Jupiter	-7968-05-23 06:28 J	-1188746.41	-1188746.23	-1188746.04	0.0523	0.0328
Mars	-7966-10-20 21:07 J	-1187865.77	-1187865.62	-1187865.48	0.1614	0.0974
Saturn	-7963-06-23 22:04 J	-1186888.78	-1186888.58	-1186888.35	0.0295	0.0145
Jupiter	-7956-05-28 10:19 J	-1184358.29	-1184358.07	-1184357.85	0.0523	0.0088
Uranus	-7956-11-25 22:19 J	-1184176.67	-1184176.57	-1184176.44	0.0145	0.0129
Neptune	-7956-12-11 00:57 J	-1184161.65	-1184161.46	-1184161.27	0.0088	0.0061
Uranus	-7955-12-01 05:02 J	-1183806.50	-1183806.29	-1183806.07	0.0146	0.0077
Neptune	-7955-12-13 07:26 J	-1183794.41	-1183794.19	-1183793.94	0.0088	0.0028
Uranus	-7954-12-06 00:00 J	-1183436.74	-1183436.50	-1183436.26	0.0146	0.0036
Neptune	-7954-12-15 21:21 J	-1183426.87	-1183426.61	-1183426.34	0.0088	0.0008
Uranus	-7953-12-10 08:38 J	-1183066.38	-1183066.14	-1183065.89	0.0146	0.0030
Neptune	-7953-12-17 08:52 J	-1183059.35	-1183059.13	-1183058.90	0.0088	0.0041
Uranus	-7952-12-15 03:35 J	-1182696.57	-1182696.35	-1182696.12	0.0146	0.0067
Neptune	-7952-12-19 17:16 J	-1182691.90	-1182691.78	-1182691.63	0.0088	0.0076
Uranus	-7951-12-20 13:26 J	-1182326.06	-1182325.94	-1182325.81	0.0146	0.0125
Saturn	-7950-12-19 05:02 J	-1181962.51	-1181962.29	-1181962.07	0.0267	0.0095
Jupiter	-7944-06-02 10:47 J	-1179970.19	-1179970.05	-1179969.92	0.0524	0.0434
Jupiter	-7939-11-18 21:21 J	-1177974.80	-1177974.61	-1177974.40	0.0504	0.0241
Saturn	-7934-06-17 23:02 J	-1176302.67	-1176302.54	-1176302.39	0.0293	0.0235
Jupiter	-7927-11-23 14:52 J	-1173587.11	-1173586.88	-1173586.65	0.0502	0.0052
Pluto	-7924-10-29 21:21 J	-1172515.71	-1172515.61	-1172515.45	0.0066	0.0057
Pluto	-7923-10-31 09:07 J	-1172149.30	-1172149.12	-1172148.93	0.0066	0.0047
Saturn	-7921-12-13 10:19 J	-1171375.25	-1171375.07	-1171374.87	0.0269	0.0178
Jupiter	-7915-11-27 18:57 J	-1169199.86	-1169199.71	-1169199.56	0.0501	0.0376
Uranus	-7914-06-03 01:26 J	-1169012.60	-1169012.44	-1169012.24	0.0133	0.0095

Uranus	-7913-06-06 03:07 J	-1168643.57	-1168643.37	-1168643.14	0.0133	0.0071
Uranus	-7912-06-10 16:19 J	-1168274.07	-1168273.82	-1168273.55	0.0133	0.0021
Uranus	-7911-06-14 17:02 J	-1167905.04	-1167904.79	-1167904.54	0.0133	0.0009
Uranus	-7910-06-19 05:16 J	-1167535.51	-1167535.28	-1167535.03	0.0132	0.0050
Uranus	-7909-06-22 04:33 J	-1167166.47	-1167166.31	-1167166.11	0.0132	0.0092
Uranus	-7908-06-26 16:47 J	-1166796.88	-1166796.80	-1166796.67	0.0132	0.0121
Saturn	-7904-06-24 18:57 J	-1165337.88	-1165337.71	-1165337.53	0.0295	0.0198
Saturn	-7891-12-20 06:28 J	-1160411.43	-1160411.23	-1160411.03	0.0267	0.0146
Mars	-7887-10-22 23:16 J	-1159008.71	-1159008.53	-1159008.34	0.1614	0.0464
Jupiter	-7885-05-22 17:02 J	-1158430.95	-1158430.79	-1158430.63	0.0522	0.0371
Saturn	-7875-06-18 15:50 J	-1154752.03	-1154751.84	-1154751.63	0.0293	0.0182
Jupiter	-7873-05-27 19:12 J	-1154042.95	-1154042.70	-1154042.46	0.0523	0.0038
Neptune	-7873-06-14 11:16 J	-1154025.10	-1154025.03	-1154024.90	0.0089	0.0081
Neptune	-7872-06-17 05:31 J	-1153657.48	-1153657.27	-1153657.03	0.0089	0.0045
Uranus	-7872-11-26 04:19 J	-1153495.42	-1153495.32	-1153495.20	0.0145	0.0130
Neptune	-7871-06-19 14:09 J	-1153290.16	-1153289.91	-1153289.66	0.0089	0.0010
Uranus	-7871-12-01 09:35 J	-1153125.31	-1153125.10	-1153124.88	0.0146	0.0080
Neptune	-7870-06-22 03:50 J	-1152922.59	-1152922.34	-1152922.07	0.0089	0.0024
Uranus	-7870-12-06 05:02 J	-1152755.53	-1152755.29	-1152755.04	0.0146	0.0021
Neptune	-7869-06-23 16:47 J	-1152554.98	-1152554.80	-1152554.61	0.0089	0.0058
Uranus	-7869-12-10 12:57 J	-1152385.22	-1152384.96	-1152384.71	0.0146	0.0017
Uranus	-7868-12-15 08:09 J	-1152015.36	-1152015.16	-1152014.95	0.0146	0.0082
Uranus	-7867-12-20 17:45 J	-1151644.87	-1151644.76	-1151644.60	0.0146	0.0123
Saturn	-7862-12-15 01:12 J	-1149824.66	-1149824.45	-1149824.22	0.0269	0.0131
Jupiter	-7861-06-01 16:04 J	-1149654.99	-1149654.83	-1149654.68	0.0525	0.0385
Jupiter	-7856-11-18 16:33 J	-1147659.00	-1147658.81	-1147658.61	0.0503	0.0277
Saturn	-7845-06-25 16:47 J	-1143786.92	-1143786.80	-1143786.67	0.0295	0.0250
Jupiter	-7844-11-22 19:26 J	-1143271.92	-1143271.69	-1143271.45	0.0502	0.0015
Pluto	-7836-05-04 18:57 J	-1140551.96	-1140551.71	-1140551.45	0.0078	0.0027
Jupiter	-7832-11-27 13:26 J	-1138884.09	-1138883.94	-1138883.77	0.0502	0.0353

Saturn	-7832-12-21 01:40 J	-1138860.60	-1138860.43	-1138860.25	0.0267	0.0194
Uranus	-7831-05-29 19:55 J	-1138700.67	-1138700.67	-1138700.62	0.0133	0.0133
Uranus	-7830-06-03 08:09 J	-1138331.30	-1138331.16	-1138330.97	0.0133	0.0105
Uranus	-7829-06-06 10:47 J	-1137962.26	-1137962.05	-1137961.80	0.0133	0.0054
Uranus	-7828-06-10 23:16 J	-1137592.78	-1137592.53	-1137592.27	0.0133	0.0028
Uranus	-7827-06-15 00:43 J	-1137223.71	-1137223.47	-1137223.21	0.0133	0.0020
Uranus	-7826-06-19 12:43 J	-1136854.20	-1136853.97	-1136853.72	0.0133	0.0053
Uranus	-7825-06-22 13:26 J	-1136485.10	-1136484.94	-1136484.74	0.0133	0.0090
Saturn	-7816-06-19 04:47 J	-1133201.52	-1133201.30	-1133201.07	0.0293	0.0130
Mars	-7808-10-25 06:43 J	-1130151.33	-1130151.22	-1130151.10	0.1614	0.1297
Saturn	-7803-12-15 18:28 J	-1128273.96	-1128273.73	-1128273.50	0.0270	0.0083
Jupiter	-7802-05-23 02:09 J	-1128115.56	-1128115.41	-1128115.25	0.0523	0.0409
Neptune	-7792-12-10 09:07 J	-1124261.25	-1124261.12	-1124260.97	0.0088	0.0073
Neptune	-7791-12-12 21:21 J	-1123893.82	-1123893.61	-1123893.37	0.0088	0.0047
Jupiter	-7790-05-28 01:40 J	-1123727.66	-1123727.43	-1123727.20	0.0524	0.0012
Neptune	-7790-12-15 09:21 J	-1123526.35	-1123526.11	-1123525.85	0.0088	0.0006
Neptune	-7789-12-16 17:02 J	-1123159.04	-1123158.79	-1123158.53	0.0088	0.0020
Uranus	-7788-11-26 10:47 J	-1122814.17	-1122814.05	-1122813.90	0.0145	0.0121
Neptune	-7788-12-19 09:21 J	-1122791.27	-1122791.11	-1122790.91	0.0088	0.0063
Uranus	-7787-12-01 14:52 J	-1122444.09	-1122443.88	-1122443.64	0.0146	0.0073
Neptune	-7787-12-21 13:55 J	-1122423.93	-1122423.92	-1122423.85	0.0088	0.0088
Uranus	-7786-12-06 11:45 J	-1122074.25	-1122074.01	-1122073.77	0.0146	0.0029
Uranus	-7785-12-10 19:12 J	-1121703.95	-1121703.70	-1121703.45	0.0146	0.0035
Mars	-7784-04-24 10:33 J	-1121569.24	-1121569.06	-1121568.88	0.1910	0.0937
Uranus	-7784-12-15 14:52 J	-1121334.09	-1121333.88	-1121333.66	0.0146	0.0071
Uranus	-7783-12-21 00:00 J	-1120963.59	-1120963.50	-1120963.37	0.0146	0.0131
Jupiter	-7778-06-02 11:31 J	-1119339.20	-1119339.02	-1119338.85	0.0524	0.0341
Jupiter	-7773-11-17 20:52 J	-1117343.81	-1117343.63	-1117343.45	0.0503	0.0317
Saturn	-7773-12-21 15:07 J	-1117309.96	-1117309.87	-1117309.75	0.0267	0.0244
Mars	-7761-10-19 18:14 J	-1112989.85	-1112989.74	-1112989.62	0.1615	0.1260

Jupiter	-7761-11-22 15:21 J	-1112956.09	-1112955.86	-1112955.64	0.0503	0.0018
Saturn	-7757-06-20 00:28 J	-1111650.72	-1111650.48	-1111650.25	0.0293	0.0076
Jupiter	-7749-11-26 23:31 J	-1108568.70	-1108568.52	-1108568.33	0.0501	0.0325
Uranus	-7746-06-03 14:24 J	-1107650.07	-1107649.90	-1107649.68	0.0133	0.0089
Uranus	-7745-06-06 18:43 J	-1107280.92	-1107280.72	-1107280.48	0.0133	0.0064
Uranus	-7744-06-11 06:28 J	-1106911.49	-1106911.23	-1106910.97	0.0133	0.0013
Saturn	-7744-12-16 16:04 J	-1106723.06	-1106722.83	-1106722.59	0.0270	0.0035
Uranus	-7743-06-15 09:07 J	-1106542.36	-1106542.12	-1106541.87	0.0133	0.0015
Uranus	-7742-06-19 19:40 J	-1106172.90	-1106172.68	-1106172.43	0.0133	0.0058
Uranus	-7741-06-22 21:35 J	-1105803.76	-1105803.60	-1105803.42	0.0133	0.0096
Uranus	-7740-06-27 08:09 J	-1105434.22	-1105434.16	-1105434.07	0.0133	0.0127
Jupiter	-7719-05-22 10:19 J	-1097800.19	-1097800.07	-1097799.95	0.0522	0.0440
Neptune	-7708-06-16 12:57 J	-1093757.10	-1093756.96	-1093756.77	0.0089	0.0067
Jupiter	-7707-05-27 17:02 J	-1093412.02	-1093411.79	-1093411.56	0.0523	0.0061
Neptune	-7707-06-19 01:40 J	-1093389.67	-1093389.43	-1093389.15	0.0089	0.0024
Neptune	-7706-06-21 15:35 J	-1093022.10	-1093021.85	-1093021.60	0.0089	0.0003
Neptune	-7705-06-22 23:31 J	-1092654.73	-1092654.52	-1092654.28	0.0089	0.0046
Neptune	-7704-06-25 16:47 J	-1092286.92	-1092286.80	-1092286.62	0.0089	0.0072
Uranus	-7704-11-26 21:35 J	-1092132.72	-1092132.60	-1092132.46	0.0145	0.0122
Uranus	-7703-12-02 00:14 J	-1091762.71	-1091762.49	-1091762.25	0.0145	0.0070
Uranus	-7702-12-06 21:50 J	-1091392.83	-1091392.59	-1091392.34	0.0146	0.0014
Uranus	-7701-12-11 03:50 J	-1091022.59	-1091022.34	-1091022.08	0.0146	0.0024
Uranus	-7700-12-16 00:00 J	-1090652.68	-1090652.50	-1090652.29	0.0146	0.0089
Uranus	-7699-12-21 08:52 J	-1090282.24	-1090282.13	-1090281.99	0.0146	0.0127
Saturn	-7698-06-22 03:21 J	-1090099.60	-1090099.36	-1090099.12	0.0293	0.0015
Jupiter	-7695-06-01 10:33 J	-1089024.26	-1089024.06	-1089023.86	0.0524	0.0285
Jupiter	-7690-11-18 16:04 J	-1087027.98	-1087027.83	-1087027.67	0.0503	0.0359
Saturn	-7685-12-17 14:24 J	-1085172.14	-1085171.90	-1085171.65	0.0270	0.0016
Mars	-7682-10-22 14:09 J	-1084133.08	-1084132.91	-1084132.74	0.1614	0.0387
Jupiter	-7678-11-23 01:26 J	-1082640.68	-1082640.44	-1082640.20	0.0502	0.0054

Pluto	-7677-11-01 02:38 J	-1082296.59	-1082296.39	-1082296.15	0.0066	0.0033
Jupiter	-7666-11-27 09:50 J	-1078253.27	-1078253.09	-1078252.91	0.0501	0.0294
Uranus	-7663-05-30 11:45 J	-1077338.06	-1077338.01	-1077337.91	0.0133	0.0127
Uranus	-7662-06-03 21:50 J	-1076968.75	-1076968.59	-1076968.39	0.0133	0.0097
Uranus	-7661-06-07 03:21 J	-1076599.58	-1076599.36	-1076599.11	0.0133	0.0047
Uranus	-7660-06-11 13:40 J	-1076230.19	-1076229.93	-1076229.66	0.0133	0.0021
Uranus	-7659-06-15 17:45 J	-1075861.00	-1075860.76	-1075860.51	0.0133	0.0027
Uranus	-7658-06-20 03:50 J	-1075491.57	-1075491.34	-1075491.10	0.0133	0.0058
Uranus	-7657-06-23 06:57 J	-1075122.37	-1075122.21	-1075122.03	0.0133	0.0097
Saturn	-7639-06-23 07:12 J	-1068548.44	-1068548.20	-1068547.96	0.0293	0.0056
Jupiter	-7636-05-21 21:35 J	-1067484.69	-1067484.60	-1067484.52	0.0522	0.0486
Neptune	-7627-12-12 10:19 J	-1063993.24	-1063993.07	-1063992.88	0.0088	0.0061
Neptune	-7626-12-14 17:16 J	-1063626.02	-1063625.78	-1063625.51	0.0088	0.0026
Saturn	-7626-12-19 09:07 J	-1063621.36	-1063621.12	-1063620.88	0.0270	0.0074
Neptune	-7625-12-16 10:33 J	-1063258.31	-1063258.06	-1063257.81	0.0088	0.0008
Jupiter	-7624-05-26 11:31 J	-1063097.25	-1063097.02	-1063096.79	0.0524	0.0132
Neptune	-7624-12-18 14:52 J	-1062891.11	-1062890.88	-1062890.65	0.0088	0.0042
Neptune	-7623-12-21 08:24 J	-1062523.25	-1062523.15	-1062522.99	0.0088	0.0076
Uranus	-7620-11-27 08:52 J	-1061451.28	-1061451.13	-1061450.96	0.0145	0.0109
Uranus	-7619-12-02 10:47 J	-1061081.28	-1061081.05	-1061080.81	0.0145	0.0063
Uranus	-7618-12-07 09:35 J	-1060711.34	-1060711.10	-1060710.85	0.0146	0.0018
Uranus	-7617-12-11 15:07 J	-1060341.11	-1060340.87	-1060340.62	0.0146	0.0044
Uranus	-7616-12-16 12:28 J	-1059971.19	-1059970.98	-1059970.77	0.0146	0.0079
Uranus	-7615-12-21 20:24 J	-1059600.72	-1059600.65	-1059600.57	0.0146	0.0139
Jupiter	-7612-05-31 21:21 J	-1058708.82	-1058708.61	-1058708.41	0.0525	0.0223
Jupiter	-7607-11-17 22:04 J	-1056712.71	-1056712.58	-1056712.44	0.0503	0.0412
Mars	-7603-10-24 06:57 J	-1055276.35	-1055276.21	-1055276.06	0.1614	0.0957
Saturn	-7597-12-13 03:21 J	-1053034.50	-1053034.36	-1053034.21	0.0272	0.0216
Jupiter	-7595-11-22 07:26 J	-1052325.40	-1052325.19	-1052324.97	0.0502	0.0108
Pluto	-7590-05-06 06:28 J	-1050699.48	-1050699.23	-1050698.97	0.0078	0.0008

Jupiter	-7583-11-26 22:04 J	-1047937.78	-1047937.58	-1047937.37	0.0502	0.0253
Saturn	-7580-06-24 11:02 J	-1046997.26	-1046997.04	-1046996.82	0.0293	0.0138
Uranus	-7579-05-30 20:52 J	-1046656.68	-1046656.63	-1046656.56	0.0133	0.0129
Uranus	-7578-06-04 06:14 J	-1046287.44	-1046287.24	-1046287.02	0.0133	0.0081
Uranus	-7577-06-07 13:12 J	-1045918.16	-1045917.95	-1045917.72	0.0133	0.0056
Uranus	-7576-06-11 22:19 J	-1045548.84	-1045548.57	-1045548.31	0.0133	0.0005
Uranus	-7575-06-16 03:50 J	-1045179.59	-1045179.34	-1045179.10	0.0133	0.0021
Uranus	-7574-06-20 12:00 J	-1044810.22	-1044810.00	-1044809.76	0.0133	0.0066
Uranus	-7573-06-23 15:50 J	-1044440.98	-1044440.84	-1044440.66	0.0133	0.0102
Saturn	-7567-12-20 05:45 J	-1042070.47	-1042070.26	-1042070.05	0.0270	0.0141
Saturn	-7551-06-18 15:36 J	-1036411.01	-1036410.85	-1036410.68	0.0290	0.0208
Neptune	-7544-06-15 23:16 J	-1033856.62	-1033856.53	-1033856.39	0.0089	0.0080
Neptune	-7543-06-18 14:38 J	-1033489.10	-1033488.89	-1033488.66	0.0089	0.0043
Neptune	-7542-06-20 22:19 J	-1033121.82	-1033121.57	-1033121.30	0.0089	0.0011
Jupiter	-7541-05-26 00:00 J	-1032781.72	-1032781.50	-1032781.29	0.0523	0.0189
Neptune	-7541-06-22 16:33 J	-1032754.04	-1032753.81	-1032753.55	0.0089	0.0026
Neptune	-7540-06-24 21:36 J	-1032386.77	-1032386.60	-1032386.39	0.0089	0.0058
Saturn	-7538-12-15 10:19 J	-1031483.26	-1031483.07	-1031482.85	0.0271	0.0145
Uranus	-7536-11-27 21:07 J	-1030769.76	-1030769.62	-1030769.45	0.0145	0.0112
Uranus	-7535-12-02 21:50 J	-1030399.83	-1030399.59	-1030399.35	0.0146	0.0058
Uranus	-7534-12-07 21:36 J	-1030029.85	-1030029.60	-1030029.36	0.0146	0.0004
Uranus	-7533-12-12 01:40 J	-1029659.68	-1029659.43	-1029659.17	0.0146	0.0035
Uranus	-7532-12-16 23:31 J	-1029289.69	-1029289.52	-1029289.32	0.0146	0.0099
Uranus	-7531-12-22 06:57 J	-1028919.29	-1028919.21	-1028919.10	0.0146	0.0135
Jupiter	-7529-05-30 19:12 J	-1028393.93	-1028393.70	-1028393.46	0.0524	0.0155
Jupiter	-7524-11-17 02:23 J	-1026397.46	-1026397.40	-1026397.32	0.0504	0.0478
Saturn	-7521-06-25 20:38 J	-1025445.77	-1025445.64	-1025445.48	0.0293	0.0234
Jupiter	-7512-11-21 18:57 J	-1022009.93	-1022009.71	-1022009.48	0.0503	0.0157
Saturn	-7508-12-21 12:28 J	-1020519.11	-1020518.98	-1020518.83	0.0269	0.0217
Mars	-7500-04-23 23:45 J	-1017838.62	-1017838.51	-1017838.40	0.1909	0.1566

Jupiter	-7500-11-25 23:45 J	-1017622.71	-1017622.51	-1017622.30	0.0501	0.0204
Uranus	-7495-05-31 07:12 J	-1015975.29	-1015975.20	-1015975.06	0.0133	0.0118
Uranus	-7494-06-04 14:52 J	-1015606.06	-1015605.88	-1015605.66	0.0133	0.0087
Uranus	-7493-06-07 23:16 J	-1015236.76	-1015236.53	-1015236.29	0.0133	0.0038
Uranus	-7492-06-12 06:43 J	-1014867.48	-1014867.22	-1014866.95	0.0133	0.0014
Saturn	-7492-06-20 09:50 J	-1014859.31	-1014859.09	-1014858.86	0.0291	0.0103
Uranus	-7491-06-16 13:12 J	-1014498.18	-1014497.95	-1014497.70	0.0133	0.0036
Uranus	-7490-06-20 20:23 J	-1014128.86	-1014128.65	-1014128.40	0.0133	0.0065
Uranus	-7489-06-24 02:23 J	-1013759.54	-1013759.40	-1013759.25	0.0133	0.0105
Saturn	-7479-12-16 17:02 J	-1009932.04	-1009931.79	-1009931.55	0.0271	0.0064
Mars	-7477-10-20 18:57 J	-1009257.88	-1009257.71	-1009257.54	0.1615	0.0814
Neptune	-7463-12-11 16:19 J	-1004092.95	-1004092.82	-1004092.65	0.0088	0.0072
Neptune	-7462-12-14 09:36 J	-1003725.29	-1003725.10	-1003724.86	0.0088	0.0048
Neptune	-7461-12-15 14:23 J	-1003358.15	-1003357.90	-1003357.64	0.0088	0.0004
Neptune	-7460-12-18 08:09 J	-1002990.41	-1002990.16	-1002989.90	0.0088	0.0020
Neptune	-7459-12-20 13:26 J	-1002623.10	-1002622.94	-1002622.75	0.0088	0.0063
Jupiter	-7458-05-25 15:07 J	-1002467.07	-1002466.87	-1002466.66	0.0523	0.0273
Neptune	-7458-12-23 04:47 J	-1002255.33	-1002255.30	-1002255.23	0.0088	0.0087
Uranus	-7452-11-28 06:43 J	-1000088.39	-1000088.22	-1000088.03	0.0145	0.0098
Uranus	-7451-12-03 06:00 J	-999718.48	-999718.25	-999717.99	0.0146	0.0055
Uranus	-7450-12-08 07:26 J	-999348.43	-999348.19	-999347.94	0.0146	0.0008
Uranus	-7449-12-12 10:33 J	-998978.29	-998978.06	-998977.81	0.0146	0.0053
Uranus	-7448-12-17 10:04 J	-998608.27	-998608.08	-998607.88	0.0146	0.0088
Jupiter	-7446-05-30 13:12 J	-998079.17	-998078.95	-998078.72	0.0524	0.0059
Jupiter	-7434-06-04 18:00 J	-993690.85	-993690.75	-993690.65	0.0525	0.0476
Saturn	-7433-06-22 03:36 J	-993307.60	-993307.35	-993307.10	0.0291	0.0009
Pluto	-7431-11-03 03:07 J	-992443.59	-992443.37	-992443.11	0.0066	0.0022
Jupiter	-7429-11-20 13:40 J	-991695.13	-991694.93	-991694.72	0.0503	0.0226
Saturn	-7420-12-18 00:28 J	-988380.74	-988380.48	-988380.23	0.0271	0.0024
Jupiter	-7417-11-25 06:00 J	-987307.47	-987307.25	-987307.03	0.0502	0.0139

Uranus	-7411-05-31 17:45 J	-985293.86	-985293.76	-985293.63	0.0133	0.0117
Uranus	-7410-06-05 00:43 J	-984924.69	-984924.47	-984924.25	0.0133	0.0072
Uranus	-7409-06-08 10:04 J	-984555.31	-984555.08	-984554.85	0.0133	0.0046
Uranus	-7408-06-12 16:04 J	-984186.09	-984185.83	-984185.56	0.0133	0.0004
Uranus	-7407-06-16 23:45 J	-983816.75	-983816.51	-983816.27	0.0132	0.0029
Uranus	-7406-06-21 05:02 J	-983447.49	-983447.29	-983447.06	0.0132	0.0075
Uranus	-7405-06-24 11:16 J	-983078.15	-983078.03	-983077.87	0.0132	0.0108
Jupiter	-7405-11-29 08:23 J	-982920.22	-982920.15	-982920.08	0.0501	0.0477
Mars	-7398-10-24 00:57 J	-980400.65	-980400.46	-980400.26	0.1614	0.0125
Saturn	-7391-12-13 07:55 J	-977793.25	-977793.17	-977793.07	0.0272	0.0250
Neptune	-7379-06-17 19:40 J	-973588.85	-973588.68	-973588.50	0.0089	0.0065
Neptune	-7378-06-20 14:23 J	-973221.14	-973220.90	-973220.64	0.0089	0.0023
Neptune	-7377-06-21 19:40 J	-972853.93	-972853.68	-972853.42	0.0089	0.0003
Neptune	-7376-06-24 13:55 J	-972486.12	-972485.92	-972485.67	0.0089	0.0046
Jupiter	-7375-05-24 11:02 J	-972152.19	-972152.04	-972151.88	0.0522	0.0373
Neptune	-7375-06-26 20:52 J	-972118.77	-972118.63	-972118.47	0.0089	0.0071
Saturn	-7374-06-24 21:07 J	-971755.84	-971755.62	-971755.39	0.0292	0.0124
Uranus	-7369-11-23 10:19 J	-969777.12	-969777.07	-969776.97	0.0145	0.0139
Uranus	-7368-11-28 14:23 J	-969407.05	-969406.90	-969406.71	0.0145	0.0105
Uranus	-7367-12-03 12:14 J	-969037.23	-969036.99	-969036.74	0.0146	0.0048
Uranus	-7366-12-08 14:52 J	-968667.12	-968666.88	-968666.63	0.0146	0.0003
Uranus	-7365-12-12 16:19 J	-968297.06	-968296.82	-968296.56	0.0146	0.0043
Uranus	-7364-12-17 16:47 J	-967926.95	-967926.80	-967926.62	0.0146	0.0106
Jupiter	-7363-05-29 15:21 J	-967764.10	-967763.86	-967763.61	0.0524	0.0016
Uranus	-7363-12-22 22:19 J	-967556.64	-967556.57	-967556.50	0.0146	0.0140
Saturn	-7361-12-19 12:14 J	-966829.21	-966828.99	-966828.76	0.0270	0.0112
Jupiter	-7351-06-03 09:50 J	-963376.23	-963376.09	-963375.94	0.0524	0.0398
Jupiter	-7346-11-20 20:23 J	-961379.84	-961379.65	-961379.46	0.0503	0.0291
Saturn	-7345-06-18 06:57 J	-961169.35	-961169.21	-961169.05	0.0290	0.0222
Pluto	-7344-05-07 04:47 J	-960846.53	-960846.30	-960846.05	0.0078	0.0029

Jupiter	-7334-11-25 00:57 J	-956992.69	-956992.46	-956992.22	0.0502	0.0077
Saturn	-7332-12-15 01:12 J	-956241.64	-956241.45	-956241.25	0.0272	0.0158
Uranus	-7327-06-01 04:33 J	-954612.45	-954612.31	-954612.17	0.0133	0.0108
Uranus	-7326-06-05 09:36 J	-954243.32	-954243.10	-954242.89	0.0133	0.0076
Uranus	-7325-06-08 19:55 J	-953873.91	-953873.67	-953873.43	0.0133	0.0029
Uranus	-7324-06-13 00:28 J	-953504.74	-953504.48	-953504.21	0.0133	0.0005
Uranus	-7323-06-17 09:21 J	-953135.33	-953135.11	-953134.87	0.0132	0.0045
Uranus	-7322-06-21 13:55 J	-952766.14	-952765.92	-952765.69	0.0132	0.0071
Jupiter	-7322-11-29 17:02 J	-952604.91	-952604.79	-952604.66	0.0501	0.0418
Uranus	-7321-06-24 21:50 J	-952396.70	-952396.59	-952396.45	0.0132	0.0113
Mars	-7319-10-26 01:12 J	-951543.47	-951543.45	-951543.42	0.1614	0.1591
Saturn	-7315-06-26 15:50 J	-950203.98	-950203.84	-950203.70	0.0292	0.0237
Saturn	-7302-12-22 05:16 J	-945277.43	-945277.28	-945277.12	0.0270	0.0205
Neptune	-7298-12-13 13:40 J	-943825.09	-943824.93	-943824.72	0.0088	0.0061
Neptune	-7297-12-15 07:55 J	-943457.41	-943457.17	-943456.91	0.0088	0.0026
Neptune	-7296-12-17 13:55 J	-943090.17	-943089.92	-943089.67	0.0088	0.0007
Neptune	-7295-12-20 03:36 J	-942722.57	-942722.35	-942722.09	0.0088	0.0042
Neptune	-7294-12-22 13:40 J	-942355.04	-942354.93	-942354.78	0.0088	0.0075
Jupiter	-7292-05-23 11:02 J	-941837.16	-941837.04	-941836.91	0.0522	0.0450
Saturn	-7286-06-21 03:21 J	-939617.59	-939617.36	-939617.13	0.0291	0.0112
Uranus	-7284-11-28 21:07 J	-938725.81	-938725.62	-938725.43	0.0145	0.0089
Uranus	-7283-12-03 17:31 J	-938356.01	-938355.77	-938355.52	0.0146	0.0049
Uranus	-7282-12-08 21:36 J	-937985.84	-937985.60	-937985.35	0.0146	0.0002
Uranus	-7281-12-12 21:21 J	-937615.83	-937615.61	-937615.35	0.0146	0.0058
Jupiter	-7280-05-28 06:00 J	-937449.48	-937449.25	-937449.03	0.0523	0.0103
Uranus	-7280-12-18 00:00 J	-937245.69	-937245.50	-937245.31	0.0146	0.0093
Saturn	-7273-12-16 12:57 J	-934690.21	-934689.96	-934689.71	0.0271	0.0065
Mars	-7272-10-20 06:14 J	-934382.28	-934382.24	-934382.19	0.1616	0.1544
Jupiter	-7268-06-02 09:21 J	-933061.30	-933061.11	-933060.92	0.0524	0.0302
Jupiter	-7263-11-19 16:33 J	-931064.97	-931064.81	-931064.64	0.0504	0.0347

Jupiter	-7251-11-24 05:31 J	-926677.49	-926677.27	-926677.04	0.0502	0.0016
Uranus	-7243-06-01 13:26 J	-923931.07	-923930.94	-923930.78	0.0133	0.0107
Uranus	-7242-06-05 17:31 J	-923561.98	-923561.77	-923561.52	0.0133	0.0065
Uranus	-7241-06-09 05:31 J	-923192.50	-923192.27	-923192.02	0.0133	0.0038
Uranus	-7240-06-13 08:52 J	-922823.39	-922823.13	-922822.86	0.0133	0.0012
Uranus	-7239-06-17 18:57 J	-922453.94	-922453.71	-922453.46	0.0133	0.0036
Jupiter	-7239-11-28 12:00 J	-922290.18	-922290.00	-922289.83	0.0501	0.0340
Uranus	-7238-06-21 21:50 J	-922084.79	-922084.59	-922084.38	0.0133	0.0083
Uranus	-7237-06-25 06:43 J	-921715.34	-921715.22	-921715.08	0.0132	0.0113
Saturn	-7227-06-22 14:38 J	-918066.14	-918065.89	-918065.64	0.0292	0.0015
Neptune	-7215-06-17 12:14 J	-913688.08	-913687.99	-913687.86	0.0089	0.0080
Neptune	-7214-06-19 17:31 J	-913320.98	-913320.77	-913320.53	0.0089	0.0043
Saturn	-7214-12-18 20:38 J	-913138.89	-913138.64	-913138.39	0.0270	0.0024
Neptune	-7213-06-21 12:14 J	-912953.25	-912952.99	-912952.73	0.0089	0.0011
Neptune	-7212-06-23 19:26 J	-912585.92	-912585.69	-912585.44	0.0089	0.0026
Neptune	-7211-06-26 09:50 J	-912218.28	-912218.09	-912217.87	0.0089	0.0057
Uranus	-7201-11-24 00:00 J	-908414.59	-908414.50	-908414.37	0.0145	0.0131
Uranus	-7200-11-29 06:00 J	-908044.43	-908044.25	-908044.06	0.0145	0.0098
Uranus	-7199-12-04 00:57 J	-907674.71	-907674.46	-907674.21	0.0146	0.0039
Uranus	-7198-12-09 06:00 J	-907304.50	-907304.25	-907304.01	0.0146	0.0008
Jupiter	-7197-05-27 08:52 J	-907134.35	-907134.13	-907133.91	0.0523	0.0183
Uranus	-7197-12-13 04:04 J	-906934.56	-906934.33	-906934.07	0.0146	0.0050
Uranus	-7196-12-18 07:12 J	-906564.34	-906564.20	-906564.02	0.0146	0.0111
Uranus	-7195-12-23 09:36 J	-906194.12	-906194.10	-906194.05	0.0146	0.0144
Mars	-7193-10-21 23:45 J	-905525.69	-905525.51	-905525.33	0.1616	0.0303
Jupiter	-7185-06-01 04:04 J	-902746.54	-902746.33	-902746.12	0.0524	0.0239
Pluto	-7185-11-04 00:28 J	-902590.72	-902590.48	-902590.22	0.0066	0.0022
Saturn	-7185-12-13 05:16 J	-902551.34	-902551.28	-902551.18	0.0273	0.0256
Jupiter	-7180-11-18 22:33 J	-900749.68	-900749.56	-900749.42	0.0504	0.0408
Saturn	-7168-06-23 21:36 J	-896514.84	-896514.60	-896514.35	0.0292	0.0073

Jupiter	-7168-11-23 05:02 J	-896362.53	-896362.29	-896362.05	0.0503	0.0048
Uranus	-7159-06-01 23:02 J	-893249.68	-893249.54	-893249.36	0.0133	0.0101
Uranus	-7158-06-06 02:09 J	-892880.63	-892880.41	-892880.18	0.0133	0.0067
Uranus	-7157-06-09 14:38 J	-892511.13	-892510.89	-892510.64	0.0133	0.0022
Uranus	-7156-06-13 17:16 J	-892142.05	-892141.78	-892141.52	0.0133	0.0003
Jupiter	-7156-11-27 17:16 J	-891974.96	-891974.78	-891974.59	0.0502	0.0282
Uranus	-7155-06-18 04:33 J	-891772.53	-891772.31	-891772.07	0.0133	0.0052
Saturn	-7155-12-20 05:31 J	-891587.49	-891587.27	-891587.04	0.0270	0.0104
Uranus	-7154-06-22 06:28 J	-891403.43	-891403.23	-891403.00	0.0133	0.0077
Uranus	-7153-06-25 17:16 J	-891033.87	-891033.78	-891033.67	0.0133	0.0121
Saturn	-7139-06-18 07:55 J	-885928.25	-885928.17	-885928.09	0.0290	0.0271
Mars	-7137-04-26 19:26 J	-885249.87	-885249.69	-885249.52	0.1909	0.1016
Neptune	-7134-12-13 05:02 J	-883924.41	-883924.29	-883924.11	0.0088	0.0073
Neptune	-7133-12-14 12:00 J	-883557.19	-883557.00	-883556.77	0.0088	0.0048
Neptune	-7132-12-17 01:55 J	-883189.69	-883189.42	-883189.16	0.0088	0.0006
Neptune	-7131-12-19 13:12 J	-882822.18	-882821.95	-882821.70	0.0088	0.0020
Neptune	-7130-12-21 21:50 J	-882454.77	-882454.59	-882454.38	0.0088	0.0061
Neptune	-7129-12-23 13:12 J	-882086.98	-882086.95	-882086.86	0.0088	0.0086
Saturn	-7126-12-15 13:12 J	-881000.13	-880999.95	-880999.75	0.0272	0.0178
Uranus	-7117-11-24 10:33 J	-877733.10	-877733.06	-877732.97	0.0145	0.0141
Uranus	-7116-11-29 16:47 J	-877362.99	-877362.80	-877362.58	0.0145	0.0079
Uranus	-7115-12-04 11:31 J	-876993.26	-876993.02	-876992.77	0.0146	0.0042
Jupiter	-7114-05-27 06:43 J	-876819.42	-876819.22	-876819.00	0.0523	0.0238
Mars	-7114-10-24 23:31 J	-876668.70	-876668.52	-876668.33	0.1615	0.0541
Uranus	-7114-12-09 17:31 J	-876623.01	-876622.77	-876622.52	0.0146	0.0011
Uranus	-7113-12-13 14:52 J	-876253.11	-876252.88	-876252.64	0.0146	0.0064
Uranus	-7112-12-18 19:12 J	-875882.86	-875882.70	-875882.50	0.0146	0.0101
Saturn	-7109-06-25 03:36 J	-874963.54	-874963.35	-874963.14	0.0292	0.0150
Jupiter	-7102-06-01 14:52 J	-872431.10	-872430.88	-872430.67	0.0524	0.0190
Pluto	-7098-05-08 23:02 J	-870993.77	-870993.54	-870993.28	0.0078	0.0034

Jupiter	-7097-11-18 01:26 J	-870434.53	-870434.44	-870434.33	0.0504	0.0454
Saturn	-7096-12-21 14:23 J	-870036.07	-870035.90	-870035.72	0.0270	0.0177
Jupiter	-7085-11-22 14:09 J	-866047.12	-866046.91	-866046.68	0.0503	0.0090
Saturn	-7080-06-19 08:38 J	-864377.31	-864377.14	-864376.95	0.0290	0.0204
Uranus	-7075-06-02 09:21 J	-862568.27	-862568.11	-862567.93	0.0133	0.0097
Uranus	-7074-06-06 11:31 J	-862199.24	-862199.02	-862198.77	0.0133	0.0057
Uranus	-7073-06-10 01:26 J	-861829.69	-861829.44	-861829.20	0.0133	0.0029
Jupiter	-7073-11-27 01:40 J	-861659.64	-861659.43	-861659.22	0.0502	0.0223
Uranus	-7072-06-14 02:52 J	-861460.64	-861460.38	-861460.12	0.0133	0.0019
Uranus	-7071-06-18 14:52 J	-861091.11	-861090.88	-861090.63	0.0133	0.0043
Uranus	-7070-06-22 15:50 J	-860722.02	-860721.84	-860721.64	0.0133	0.0091
Uranus	-7069-06-26 02:52 J	-860352.47	-860352.38	-860352.25	0.0133	0.0119
Saturn	-7067-12-16 12:28 J	-859449.21	-859448.98	-859448.75	0.0272	0.0108
Neptune	-7050-06-19 08:09 J	-853420.33	-853420.16	-853419.97	0.0089	0.0065
Saturn	-7050-06-27 07:55 J	-853412.32	-853412.17	-853412.00	0.0292	0.0212
Neptune	-7049-06-20 16:47 J	-853053.04	-853052.80	-853052.56	0.0089	0.0023
Neptune	-7048-06-23 06:28 J	-852685.49	-852685.23	-852684.96	0.0089	0.0003
Neptune	-7047-06-25 19:26 J	-852317.89	-852317.69	-852317.46	0.0089	0.0044
Neptune	-7046-06-28 04:04 J	-851950.46	-851950.33	-851950.13	0.0089	0.0070
Saturn	-7037-12-22 17:02 J	-848484.90	-848484.79	-848484.67	0.0270	0.0238
Uranus	-7033-11-24 23:16 J	-847051.66	-847051.53	-847051.38	0.0145	0.0120
Uranus	-7032-11-30 05:45 J	-846681.45	-846681.26	-846681.05	0.0146	0.0088
Jupiter	-7031-05-26 18:14 J	-846503.93	-846503.74	-846503.54	0.0522	0.0286
Uranus	-7031-12-04 23:31 J	-846311.76	-846311.52	-846311.26	0.0146	0.0028
Uranus	-7030-12-10 06:14 J	-845941.48	-845941.24	-845940.99	0.0146	0.0017
Uranus	-7029-12-14 02:38 J	-845571.62	-845571.39	-845571.15	0.0146	0.0060
Uranus	-7028-12-19 07:55 J	-845201.29	-845201.17	-845201.01	0.0146	0.0120
Saturn	-7021-06-20 01:26 J	-842826.65	-842826.44	-842826.22	0.0290	0.0151
Jupiter	-7019-05-31 14:52 J	-842116.12	-842115.88	-842115.65	0.0523	0.0140
Jupiter	-7014-11-18 11:16 J	-840119.06	-840119.03	-840118.98	0.0504	0.0493

Saturn -7008-12-17 08:52 J -837898.37 -837898.13 -837897.89 0.0272 0.0049
Jupiter -7002-11-23 01:55 J -835731.65 -835731.42 -835731.18 0.0503 0.0128

7TH MILLENNIUM BCE

This is a list of transits of Moon in the 7th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-6992-05-29 05:02 J		-832256.35	-832256.29	-832256.18	0.0133	0.0126	
Uranus	-6991-06-02 20:38 J		-831886.81	-831886.64	-831886.45	0.0133	0.0092	
Saturn	-6991-06-28 05:45 J		-831861.34	-831861.26	-831861.14	0.0292	0.0267	
Uranus	-6990-06-06 22:19 J		-831517.80	-831517.57	-831517.34	0.0133	0.0057	
Jupiter	-6990-11-27 06:43 J		-831344.43	-831344.22	-831344.01	0.0502	0.0175	
Uranus	-6989-06-10 12:14 J		-831148.24	-831147.99	-831147.74	0.0133	0.0013	
Uranus	-6988-06-14 12:57 J		-830779.21	-830778.96	-830778.69	0.0133	0.0011	
Mars	-6988-10-21 18:57 J		-830649.86	-830649.71	-830649.56	0.1617	0.0947	
Uranus	-6987-06-19 01:55 J		-830409.63	-830409.42	-830409.18	0.0133	0.0061	
Uranus	-6986-06-23 02:23 J		-830040.58	-830040.40	-830040.18	0.0132	0.0084	
Uranus	-6985-06-26 14:38 J		-829670.92	-829670.89	-829670.81	0.0132	0.0130	
Jupiter	-6978-12-02 01:12 J		-826956.53	-826956.45	-826956.35	0.0501	0.0461	
Neptune	-6969-12-13 23:31 J		-823656.69	-823656.52	-823656.31	0.0088	0.0062	
Neptune	-6968-12-16 11:31 J		-823289.25	-823289.02	-823288.77	0.0088	0.0026	
Neptune	-6967-12-18 19:12 J		-822921.96	-822921.70	-822921.44	0.0088	0.0004	
Neptune	-6966-12-21 11:31 J		-822554.23	-822554.02	-822553.78	0.0088	0.0040	
Neptune	-6965-12-22 16:04 J		-822186.97	-822186.83	-822186.66	0.0088	0.0071	

Saturn	-6962-06-21 20:09 J	-821275.88	-821275.66	-821275.43	0.0290	0.0104
Uranus	-6949-11-25 11:16 J	-816370.14	-816370.03	-816369.91	0.0145	0.0129
Saturn	-6949-12-18 07:40 J	-816347.42	-816347.18	-816346.94	0.0272	0.0008
Jupiter	-6948-05-25 20:52 J	-816188.81	-816188.63	-816188.43	0.0523	0.0327
Uranus	-6948-11-30 17:45 J	-815999.97	-815999.76	-815999.53	0.0146	0.0068
Uranus	-6947-12-05 11:31 J	-815630.26	-815630.02	-815629.76	0.0146	0.0032
Uranus	-6946-12-10 19:12 J	-815259.94	-815259.70	-815259.45	0.0146	0.0022
Uranus	-6945-12-14 15:07 J	-814890.09	-814889.87	-814889.64	0.0146	0.0074
Uranus	-6944-12-19 21:50 J	-814519.74	-814519.59	-814519.42	0.0146	0.0111
Pluto	-6939-11-05 19:12 J	-812737.94	-812737.70	-812737.46	0.0066	0.0023
Jupiter	-6936-05-31 02:52 J	-811800.60	-811800.38	-811800.15	0.0524	0.0109
Jupiter	-6924-06-05 08:09 J	-807412.23	-807412.16	-807412.07	0.0525	0.0492
Jupiter	-6919-11-22 07:55 J	-805416.38	-805416.17	-805415.95	0.0503	0.0164
Mars	-6909-10-23 16:47 J	-801792.98	-801792.80	-801792.63	0.1616	0.0316
Uranus	-6908-05-29 16:47 J	-801574.87	-801574.80	-801574.72	0.0133	0.0127
Uranus	-6907-06-03 08:23 J	-801205.33	-801205.15	-801204.94	0.0133	0.0086
Jupiter	-6907-11-27 03:07 J	-801028.59	-801028.37	-801028.14	0.0502	0.0137
Uranus	-6906-06-07 09:21 J	-800836.34	-800836.11	-800835.86	0.0133	0.0048
Uranus	-6905-06-11 00:00 J	-800466.74	-800466.50	-800466.24	0.0133	0.0020
Uranus	-6904-06-15 00:14 J	-800097.73	-800097.49	-800097.22	0.0133	0.0029
Uranus	-6903-06-19 13:55 J	-799728.15	-799727.92	-799727.69	0.0132	0.0051
Saturn	-6903-06-22 18:43 J	-799724.95	-799724.72	-799724.48	0.0290	0.0057
Uranus	-6902-06-23 13:26 J	-799359.10	-799358.94	-799358.76	0.0132	0.0100
Uranus	-6901-06-27 02:09 J	-798989.48	-798989.41	-798989.33	0.0132	0.0126
Jupiter	-6895-12-01 06:28 J	-796641.35	-796641.23	-796641.10	0.0501	0.0422
Saturn	-6890-12-20 06:00 J	-794796.48	-794796.25	-794796.01	0.0272	0.0062
Neptune	-6886-06-18 13:12 J	-793520.02	-793519.95	-793519.84	0.0089	0.0082
Neptune	-6885-06-20 02:09 J	-793152.64	-793152.41	-793152.17	0.0089	0.0043
Neptune	-6884-06-22 16:04 J	-792785.07	-792784.83	-792784.58	0.0089	0.0014
Neptune	-6883-06-24 23:45 J	-792417.75	-792417.51	-792417.25	0.0089	0.0025

Neptune	-6882-06-27 17:31 J	-792049.96	-792049.77	-792049.56	0.0089	0.0054
Jupiter	-6865-05-25 11:31 J	-785873.18	-785873.02	-785872.85	0.0522	0.0352
Uranus	-6865-11-25 20:52 J	-785688.77	-785688.63	-785688.45	0.0145	0.0110
Uranus	-6864-12-01 03:50 J	-785318.53	-785318.34	-785318.11	0.0146	0.0078
Uranus	-6863-12-05 21:36 J	-784948.85	-784948.60	-784948.34	0.0146	0.0017
Uranus	-6862-12-11 05:31 J	-784578.52	-784578.27	-784578.03	0.0146	0.0026
Saturn	-6861-12-13 12:00 J	-784210.10	-784210.00	-784209.87	0.0274	0.0243
Uranus	-6861-12-15 00:28 J	-784208.69	-784208.48	-784208.24	0.0146	0.0072
Uranus	-6860-12-20 08:23 J	-783838.25	-783838.15	-783838.03	0.0146	0.0129
Mars	-6853-04-24 19:40 J	-781520.88	-781520.68	-781520.48	0.1907	0.0879
Jupiter	-6853-05-30 14:09 J	-781485.15	-781484.91	-781484.67	0.0523	0.0070
Pluto	-6852-05-09 17:02 J	-781141.03	-781140.79	-781140.56	0.0078	0.0034
Saturn	-6844-06-23 14:23 J	-778174.15	-778173.90	-778173.66	0.0290	0.0009
Jupiter	-6841-06-04 10:47 J	-777097.17	-777097.05	-777096.92	0.0524	0.0441
Jupiter	-6836-11-22 05:02 J	-775100.50	-775100.29	-775100.08	0.0503	0.0192
Saturn	-6831-12-20 21:50 J	-773245.81	-773245.59	-773245.35	0.0272	0.0116
Mars	-6830-10-26 10:19 J	-772936.20	-772936.07	-772935.94	0.1615	0.1072
Uranus	-6824-05-30 05:16 J	-770893.40	-770893.28	-770893.13	0.0133	0.0113
Jupiter	-6824-11-26 10:04 J	-770713.31	-770713.08	-770712.85	0.0502	0.0101
Uranus	-6823-06-03 20:38 J	-770523.82	-770523.64	-770523.42	0.0133	0.0082
Uranus	-6822-06-07 21:36 J	-770154.84	-770154.60	-770154.36	0.0133	0.0046
Uranus	-6821-06-11 12:14 J	-769785.25	-769784.99	-769784.74	0.0133	0.0004
Uranus	-6820-06-15 12:00 J	-769416.25	-769416.00	-769415.74	0.0132	0.0021
Uranus	-6819-06-20 01:55 J	-769046.63	-769046.42	-769046.20	0.0132	0.0070
Uranus	-6818-06-24 00:57 J	-768677.63	-768677.46	-768677.26	0.0132	0.0092
Jupiter	-6812-12-01 01:12 J	-766325.59	-766325.45	-766325.31	0.0501	0.0393
Neptune	-6805-12-13 09:50 J	-763756.21	-763756.09	-763755.94	0.0088	0.0075
Neptune	-6804-12-15 16:19 J	-763389.02	-763388.82	-763388.58	0.0088	0.0050
Neptune	-6803-12-18 09:36 J	-763021.35	-763021.10	-763020.84	0.0088	0.0009
Saturn	-6802-12-15 08:52 J	-762659.30	-762659.13	-762658.96	0.0274	0.0191

Neptune	-6802-12-20 13:55 J	-762654.17	-762653.92	-762653.67	0.0088	0.0017
Neptune	-6801-12-22 07:12 J	-762286.37	-762286.20	-762285.98	0.0088	0.0059
Neptune	-6800-12-24 12:28 J	-761919.05	-761918.98	-761918.87	0.0088	0.0083
Saturn	-6785-06-24 07:12 J	-756623.45	-756623.20	-756622.95	0.0290	0.0052
Mars	-6783-10-20 14:23 J	-755774.92	-755774.90	-755774.87	0.1619	0.1605
Jupiter	-6782-05-25 20:09 J	-755557.81	-755557.66	-755557.49	0.0522	0.0392
Uranus	-6781-11-26 04:47 J	-755007.42	-755007.30	-755007.14	0.0145	0.0120
Uranus	-6780-12-01 11:45 J	-754637.23	-754637.01	-754636.77	0.0146	0.0058
Uranus	-6779-12-06 05:31 J	-754267.52	-754267.27	-754267.02	0.0146	0.0023
Uranus	-6778-12-11 13:55 J	-753897.16	-753896.92	-753896.67	0.0146	0.0032
Uranus	-6777-12-15 08:52 J	-753527.33	-753527.13	-753526.91	0.0146	0.0082
Uranus	-6776-12-20 17:45 J	-753156.89	-753156.76	-753156.61	0.0146	0.0119
Saturn	-6772-12-21 11:31 J	-751695.21	-751695.02	-751694.82	0.0272	0.0172
Jupiter	-6770-05-30 14:38 J	-751170.12	-751169.89	-751169.66	0.0524	0.0014
Jupiter	-6758-06-05 01:40 J	-746781.59	-746781.43	-746781.27	0.0525	0.0380
Jupiter	-6753-11-21 10:04 J	-744785.29	-744785.08	-744784.87	0.0503	0.0227
Saturn	-6743-12-16 08:23 J	-741108.35	-741108.15	-741107.93	0.0274	0.0133
Jupiter	-6741-11-26 01:40 J	-740397.65	-740397.43	-740397.21	0.0502	0.0057
Uranus	-6740-05-30 16:04 J	-740211.93	-740211.83	-740211.69	0.0133	0.0118
Uranus	-6739-06-04 07:55 J	-739842.37	-739842.17	-739841.94	0.0133	0.0075
Uranus	-6738-06-08 08:52 J	-739473.37	-739473.13	-739472.88	0.0133	0.0038
Uranus	-6737-06-11 23:45 J	-739103.76	-739103.51	-739103.25	0.0133	0.0009
Uranus	-6736-06-15 23:45 J	-738734.75	-738734.51	-738734.26	0.0132	0.0038
Uranus	-6735-06-20 13:26 J	-738365.16	-738364.94	-738364.70	0.0132	0.0060
Uranus	-6734-06-24 12:28 J	-737996.10	-737995.98	-737995.82	0.0132	0.0109
Jupiter	-6729-11-30 09:50 J	-736010.25	-736010.09	-736009.91	0.0501	0.0358
Saturn	-6726-06-26 04:47 J	-735072.52	-735072.30	-735072.07	0.0290	0.0119
Neptune	-6721-06-19 11:02 J	-733252.18	-733252.04	-733251.85	0.0089	0.0067
Neptune	-6720-06-21 18:57 J	-732884.95	-732884.71	-732884.45	0.0089	0.0026
Neptune	-6719-06-24 13:55 J	-732517.18	-732516.92	-732516.66	0.0089	0.0000

Neptune	-6718-06-26 18:43 J	-732149.93	-732149.72	-732149.48	0.0089	0.0041
Neptune	-6717-06-28 13:55 J	-731782.08	-731781.92	-731781.74	0.0089	0.0066
Saturn	-6713-12-22 09:07 J	-730144.24	-730144.12	-730143.99	0.0272	0.0230
Mars	-6704-10-22 16:19 J	-726918.00	-726917.82	-726917.64	0.1618	0.0618
Jupiter	-6699-05-24 20:23 J	-725242.76	-725242.65	-725242.53	0.0523	0.0453
Saturn	-6697-06-19 14:23 J	-724486.05	-724485.90	-724485.74	0.0287	0.0223
Uranus	-6697-11-26 12:43 J	-724326.12	-724325.97	-724325.77	0.0145	0.0103
Uranus	-6696-12-01 19:12 J	-723955.91	-723955.70	-723955.46	0.0146	0.0070
Uranus	-6695-12-06 13:12 J	-723586.20	-723585.95	-723585.70	0.0146	0.0008
Uranus	-6694-12-11 21:21 J	-723215.86	-723215.61	-723215.36	0.0146	0.0033
Pluto	-6693-11-07 01:40 J	-722884.62	-722884.43	-722884.20	0.0066	0.0036
Uranus	-6693-12-15 15:50 J	-722846.04	-722845.84	-722845.62	0.0146	0.0079
Uranus	-6692-12-21 00:57 J	-722475.54	-722475.46	-722475.35	0.0146	0.0136
Jupiter	-6687-05-30 06:28 J	-720854.47	-720854.23	-720854.00	0.0523	0.0027
Saturn	-6684-12-17 06:28 J	-719557.46	-719557.23	-719556.98	0.0274	0.0073
Jupiter	-6675-06-04 00:14 J	-716466.68	-716466.49	-716466.30	0.0524	0.0317
Jupiter	-6670-11-22 00:14 J	-714469.68	-714469.49	-714469.30	0.0504	0.0275
Saturn	-6667-06-27 12:28 J	-713521.14	-713520.98	-713520.81	0.0290	0.0201
Jupiter	-6658-11-26 10:19 J	-710082.31	-710082.07	-710081.83	0.0502	0.0011
Uranus	-6656-05-31 03:36 J	-709530.49	-709530.35	-709530.17	0.0133	0.0103
Uranus	-6655-06-04 19:26 J	-709160.90	-709160.69	-709160.47	0.0133	0.0072
Uranus	-6654-06-08 20:23 J	-708791.89	-708791.65	-708791.40	0.0133	0.0036
Uranus	-6653-06-12 11:02 J	-708422.29	-708422.04	-708421.78	0.0133	0.0005
Uranus	-6652-06-16 10:47 J	-708053.28	-708053.05	-708052.79	0.0132	0.0031
Uranus	-6651-06-21 00:57 J	-707683.66	-707683.46	-707683.25	0.0132	0.0079
Uranus	-6650-06-25 00:14 J	-707314.64	-707314.49	-707314.31	0.0132	0.0101
Jupiter	-6646-11-30 19:55 J	-705694.84	-705694.67	-705694.50	0.0501	0.0323
Neptune	-6640-12-15 06:57 J	-703488.38	-703488.21	-703488.04	0.0088	0.0065
Neptune	-6639-12-17 10:47 J	-703121.29	-703121.05	-703120.81	0.0088	0.0028
Saturn	-6638-06-21 20:23 J	-702934.87	-702934.65	-702934.42	0.0287	0.0138

Neptune	-6638-12-20 04:04 J	-702753.59	-702753.33	-702753.07	0.0088	0.0000
Neptune	-6637-12-21 09:21 J	-702386.33	-702386.11	-702385.87	0.0088	0.0037
Neptune	-6636-12-23 23:45 J	-702018.66	-702018.51	-702018.31	0.0088	0.0066
Mars	-6625-10-24 23:31 J	-698060.69	-698060.52	-698060.35	0.1617	0.0792
Saturn	-6625-12-18 04:33 J	-698006.57	-698006.31	-698006.06	0.0274	0.0005
Jupiter	-6616-05-24 06:57 J	-694927.28	-694927.21	-694927.14	0.0522	0.0496
Uranus	-6614-11-23 06:00 J	-694014.27	-694014.25	-694014.22	0.0145	0.0144
Uranus	-6613-11-27 00:14 J	-693644.65	-693644.49	-693644.33	0.0145	0.0110
Uranus	-6612-12-02 05:45 J	-693274.50	-693274.26	-693274.02	0.0146	0.0049
Uranus	-6611-12-07 00:00 J	-692904.75	-692904.50	-692904.25	0.0146	0.0015
Uranus	-6610-12-12 07:55 J	-692534.40	-692534.17	-692533.91	0.0146	0.0041
Uranus	-6609-12-16 02:38 J	-692164.58	-692164.39	-692164.18	0.0146	0.0089
Uranus	-6608-12-21 12:14 J	-691794.11	-691793.99	-691793.86	0.0146	0.0126
Pluto	-6606-05-11 23:31 J	-691287.76	-691287.52	-691287.27	0.0078	0.0016
Jupiter	-6604-05-28 23:31 J	-690539.75	-690539.52	-690539.28	0.0523	0.0097
Jupiter	-6592-06-03 02:38 J	-686151.59	-686151.39	-686151.18	0.0524	0.0231
Jupiter	-6587-11-21 07:26 J	-684154.37	-684154.19	-684154.00	0.0503	0.0321
Saturn	-6579-06-23 05:31 J	-681383.52	-681383.27	-681383.02	0.0287	0.0043
Jupiter	-6575-11-25 13:55 J	-679767.14	-679766.92	-679766.70	0.0502	0.0051
Uranus	-6573-05-27 11:45 J	-679218.02	-679218.01	-679217.96	0.0133	0.0133
Uranus	-6572-05-31 14:38 J	-678849.02	-678848.89	-678848.73	0.0133	0.0108
Uranus	-6571-06-05 06:00 J	-678479.47	-678479.25	-678479.01	0.0133	0.0064
Uranus	-6570-06-09 07:55 J	-678110.42	-678110.17	-678109.92	0.0133	0.0029
Uranus	-6569-06-12 22:33 J	-677740.82	-677740.56	-677740.30	0.0133	0.0002
Uranus	-6568-06-16 23:02 J	-677371.77	-677371.54	-677371.30	0.0132	0.0047
Uranus	-6567-06-21 12:57 J	-677002.18	-677001.96	-677001.74	0.0132	0.0069
Uranus	-6566-06-25 12:28 J	-676633.09	-676632.98	-676632.86	0.0132	0.0118
Saturn	-6566-12-20 08:09 J	-676455.39	-676455.16	-676454.92	0.0274	0.0074
Jupiter	-6563-11-30 03:36 J	-675379.54	-675379.35	-675379.14	0.0501	0.0266
Neptune	-6557-06-18 11:16 J	-673352.07	-673352.03	-673351.94	0.0089	0.0086

Neptune	-6556-06-21 06:57 J	-672984.42	-672984.21	-672983.98	0.0089	0.0046
Neptune	-6555-06-23 12:28 J	-672617.23	-672616.98	-672616.73	0.0089	0.0019
Neptune	-6554-06-26 06:57 J	-672249.45	-672249.21	-672248.94	0.0089	0.0021
Neptune	-6553-06-27 14:23 J	-671882.10	-671881.90	-671881.68	0.0089	0.0049
Neptune	-6552-06-30 05:31 J	-671514.30	-671514.27	-671514.21	0.0089	0.0087
Saturn	-6537-12-14 16:04 J	-665867.98	-665867.83	-665867.66	0.0276	0.0209
Uranus	-6530-11-23 17:45 J	-663332.76	-663332.76	-663332.74	0.0145	0.0145
Uranus	-6529-11-27 13:26 J	-662963.13	-662962.94	-662962.75	0.0145	0.0092
Uranus	-6528-12-02 18:14 J	-662592.97	-662592.74	-662592.50	0.0146	0.0059
Uranus	-6527-12-07 13:12 J	-662223.20	-662222.95	-662222.70	0.0146	0.0003
Uranus	-6526-12-12 20:38 J	-661852.88	-661852.64	-661852.40	0.0146	0.0041
Uranus	-6525-12-16 15:07 J	-661483.06	-661482.87	-661482.66	0.0146	0.0089
Uranus	-6524-12-22 00:14 J	-661112.52	-661112.49	-661112.42	0.0146	0.0144
Jupiter	-6521-05-28 01:12 J	-660224.66	-660224.45	-660224.23	0.0523	0.0181
Saturn	-6520-06-24 22:33 J	-659831.79	-659831.56	-659831.32	0.0288	0.0063
Jupiter	-6509-06-02 00:14 J	-655836.72	-655836.49	-655836.26	0.0524	0.0164
Saturn	-6507-12-21 21:07 J	-654903.81	-654903.62	-654903.42	0.0273	0.0159
Jupiter	-6504-11-20 06:28 J	-653839.36	-653839.23	-653839.09	0.0504	0.0397
Mars	-6499-10-22 06:28 J	-652042.36	-652042.23	-652042.10	0.1621	0.1030
Jupiter	-6497-06-07 01:55 J	-651448.46	-651448.42	-651448.37	0.0525	0.0514
Jupiter	-6492-11-24 20:09 J	-649451.89	-649451.66	-649451.43	0.0503	0.0121
Saturn	-6491-06-19 13:12 J	-649245.02	-649244.95	-649244.85	0.0287	0.0268
Uranus	-6488-06-01 04:04 J	-648167.50	-648167.33	-648167.13	0.0133	0.0092
Uranus	-6487-06-05 18:43 J	-647797.94	-647797.72	-647797.48	0.0133	0.0063
Uranus	-6486-06-09 21:07 J	-647428.87	-647428.62	-647428.37	0.0133	0.0025
Uranus	-6485-06-13 11:02 J	-647059.29	-647059.04	-647058.78	0.0133	0.0015
Uranus	-6484-06-17 11:45 J	-646690.24	-646690.01	-646689.76	0.0132	0.0041
Uranus	-6483-06-22 01:12 J	-646320.64	-646320.45	-646320.25	0.0132	0.0088
Uranus	-6482-06-26 00:57 J	-645951.58	-645951.46	-645951.30	0.0132	0.0110
Jupiter	-6480-11-29 00:28 J	-645064.68	-645064.48	-645064.26	0.0502	0.0205

Saturn	-6478-12-17 00:14 J	-644316.71	-644316.49	-644316.26	0.0275	0.0119
Neptune	-6476-12-14 07:26 J	-643588.29	-643588.19	-643588.05	0.0088	0.0078
Neptune	-6475-12-17 00:28 J	-643220.67	-643220.48	-643220.25	0.0088	0.0053
Neptune	-6474-12-19 07:12 J	-642853.45	-642853.20	-642852.95	0.0088	0.0013
Neptune	-6473-12-20 20:09 J	-642485.92	-642485.66	-642485.39	0.0088	0.0013
Neptune	-6472-12-23 06:43 J	-642118.41	-642118.22	-642118.02	0.0088	0.0053
Neptune	-6471-12-25 14:52 J	-641750.99	-641750.88	-641750.74	0.0088	0.0078
Saturn	-6461-06-26 22:19 J	-638279.76	-638279.57	-638279.38	0.0289	0.0176
Pluto	-6448-11-07 11:31 J	-633398.11	-633398.02	-633397.85	0.0066	0.0057
Saturn	-6448-12-23 13:40 J	-633352.01	-633351.93	-633351.82	0.0273	0.0250
Pluto	-6447-11-09 07:12 J	-633031.35	-633031.20	-633030.99	0.0066	0.0049
Uranus	-6446-11-24 07:40 J	-632651.26	-632651.18	-632651.06	0.0145	0.0133
Uranus	-6445-11-28 03:50 J	-632281.50	-632281.34	-632281.14	0.0145	0.0098
Uranus	-6444-12-03 08:23 J	-631911.40	-631911.15	-631910.90	0.0146	0.0037
Uranus	-6443-12-08 03:50 J	-631541.58	-631541.34	-631541.09	0.0146	0.0004
Uranus	-6442-12-13 11:02 J	-631171.27	-631171.04	-631170.79	0.0146	0.0053
Uranus	-6441-12-17 06:14 J	-630801.41	-630801.24	-630801.04	0.0146	0.0099
Uranus	-6440-12-22 15:21 J	-630430.92	-630430.86	-630430.75	0.0146	0.0137
Jupiter	-6438-05-27 19:12 J	-629909.91	-629909.70	-629909.48	0.0522	0.0251
Saturn	-6432-06-21 04:19 J	-627693.53	-627693.32	-627693.11	0.0287	0.0159
Jupiter	-6426-06-01 21:07 J	-625521.84	-625521.62	-625521.39	0.0523	0.0079
Jupiter	-6421-11-19 12:43 J	-623524.05	-623523.97	-623523.87	0.0504	0.0466
Mars	-6420-10-24 00:14 J	-623185.66	-623185.49	-623185.31	0.1619	0.0119
Saturn	-6419-12-18 10:33 J	-622765.31	-622765.06	-622764.81	0.0274	0.0026
Jupiter	-6414-06-06 18:57 J	-621133.85	-621133.71	-621133.56	0.0524	0.0415
Jupiter	-6409-11-23 16:47 J	-619137.01	-619136.80	-619136.58	0.0503	0.0182
Uranus	-6405-05-28 12:57 J	-617855.05	-617854.96	-617854.82	0.0133	0.0121
Uranus	-6404-06-01 17:31 J	-617485.93	-617485.77	-617485.59	0.0133	0.0096
Uranus	-6403-06-06 07:26 J	-617116.42	-617116.19	-617115.93	0.0133	0.0052
Uranus	-6402-06-10 10:47 J	-616747.30	-616747.05	-616746.80	0.0133	0.0019

Saturn	-6402-06-29 20:52 J	-616727.64	-616727.63	-616727.59	0.0289	0.0288
Uranus	-6401-06-14 00:28 J	-616377.74	-616377.48	-616377.22	0.0133	0.0013
Uranus	-6400-06-18 01:55 J	-616008.64	-616008.42	-616008.19	0.0132	0.0057
Uranus	-6399-06-22 14:23 J	-615639.09	-615638.90	-615638.67	0.0132	0.0080
Uranus	-6398-06-26 14:52 J	-615269.93	-615269.88	-615269.80	0.0132	0.0128
Jupiter	-6397-11-28 07:26 J	-614749.41	-614749.19	-614748.96	0.0502	0.0139
Neptune	-6392-06-20 05:16 J	-613084.42	-613084.28	-613084.12	0.0089	0.0071
Neptune	-6391-06-22 23:16 J	-612716.76	-612716.53	-612716.27	0.0089	0.0032
Neptune	-6390-06-25 08:23 J	-612349.40	-612349.15	-612348.90	0.0089	0.0004
Neptune	-6389-06-26 21:50 J	-611981.82	-611981.59	-611981.32	0.0089	0.0035
Neptune	-6388-06-29 10:33 J	-611614.22	-611614.06	-611613.86	0.0089	0.0062
Jupiter	-6385-12-02 09:07 J	-610362.18	-610362.12	-610362.06	0.0501	0.0484
Saturn	-6373-06-22 20:23 J	-606141.89	-606141.65	-606141.40	0.0288	0.0054
Uranus	-6362-11-24 19:55 J	-601969.76	-601969.67	-601969.54	0.0145	0.0131
Uranus	-6361-11-28 17:45 J	-601599.96	-601599.76	-601599.55	0.0145	0.0080
Pluto	-6360-05-13 04:19 J	-601434.59	-601434.32	-601434.05	0.0078	0.0005
Uranus	-6360-12-03 21:07 J	-601229.86	-601229.62	-601229.37	0.0146	0.0046
Saturn	-6360-12-20 01:40 J	-601213.66	-601213.43	-601213.20	0.0274	0.0066
Uranus	-6359-12-08 17:31 J	-600860.01	-600859.77	-600859.52	0.0146	0.0015
Uranus	-6358-12-14 00:00 J	-600489.73	-600489.50	-600489.25	0.0146	0.0053
Uranus	-6357-12-17 19:26 J	-600119.86	-600119.69	-600119.50	0.0146	0.0101
Jupiter	-6355-05-26 14:09 J	-599595.08	-599594.91	-599594.74	0.0522	0.0345
Jupiter	-6343-05-31 14:52 J	-595207.13	-595206.88	-595206.64	0.0523	0.0014
Mars	-6341-10-25 21:36 J	-594328.72	-594328.60	-594328.49	0.1618	0.1286
Jupiter	-6331-06-05 13:40 J	-590819.09	-590818.93	-590818.75	0.0524	0.0348
Saturn	-6331-12-15 08:52 J	-590626.26	-590626.13	-590625.97	0.0276	0.0222
Jupiter	-6326-11-23 22:47 J	-588821.75	-588821.55	-588821.35	0.0503	0.0252
Uranus	-6321-05-29 03:50 J	-587173.40	-587173.34	-587173.24	0.0133	0.0127
Uranus	-6320-06-02 09:07 J	-586804.31	-586804.12	-586803.91	0.0133	0.0079
Uranus	-6319-06-06 22:19 J	-586434.80	-586434.57	-586434.31	0.0133	0.0051

Uranus	-6318-06-11 01:55 J	-586065.66	-586065.42	-586065.17	0.0133	0.0013
Uranus	-6317-06-14 14:38 J	-585696.15	-585695.89	-585695.64	0.0132	0.0026
Uranus	-6316-06-18 16:19 J	-585327.05	-585326.82	-585326.59	0.0132	0.0052
Uranus	-6315-06-23 03:36 J	-584957.50	-584957.35	-584957.15	0.0132	0.0099
Saturn	-6314-06-25 13:55 J	-584590.16	-584589.92	-584589.69	0.0289	0.0047
Uranus	-6314-06-27 04:33 J	-584588.39	-584588.31	-584588.18	0.0132	0.0120
Jupiter	-6314-11-28 00:14 J	-584434.72	-584434.49	-584434.25	0.0503	0.0070
Neptune	-6311-12-16 02:38 J	-583320.52	-583320.39	-583320.22	0.0088	0.0070
Neptune	-6310-12-18 15:07 J	-582953.11	-582952.87	-582952.61	0.0088	0.0032
Neptune	-6309-12-20 03:36 J	-582585.60	-582585.35	-582585.10	0.0088	0.0006
Neptune	-6308-12-22 10:47 J	-582218.29	-582218.05	-582217.80	0.0088	0.0033
Neptune	-6307-12-25 02:52 J	-581850.56	-581850.38	-581850.18	0.0088	0.0059
Jupiter	-6302-12-02 16:33 J	-580046.92	-580046.81	-580046.70	0.0502	0.0430
Saturn	-6301-12-21 18:57 J	-579661.90	-579661.71	-579661.52	0.0273	0.0155
Saturn	-6285-06-19 03:50 J	-574003.38	-574003.34	-574003.28	0.0286	0.0279
Uranus	-6278-11-25 07:40 J	-571288.31	-571288.18	-571288.03	0.0145	0.0121
Uranus	-6277-11-29 06:14 J	-570918.44	-570918.24	-570918.04	0.0146	0.0084
Uranus	-6276-12-04 08:23 J	-570548.40	-570548.15	-570547.89	0.0146	0.0025
Uranus	-6275-12-09 05:45 J	-570178.50	-570178.26	-570178.01	0.0146	0.0008
Uranus	-6274-12-14 11:45 J	-569808.24	-569808.01	-569807.77	0.0146	0.0065
Uranus	-6273-12-18 07:40 J	-569438.32	-569438.18	-569437.99	0.0146	0.0110
Jupiter	-6272-05-25 13:55 J	-569280.07	-569279.92	-569279.77	0.0522	0.0411
Saturn	-6272-12-16 18:57 J	-569074.93	-569074.71	-569074.48	0.0275	0.0128
Jupiter	-6260-05-30 13:12 J	-564892.18	-564891.95	-564891.73	0.0523	0.0086
Saturn	-6255-06-27 05:31 J	-563038.48	-563038.27	-563038.06	0.0289	0.0138
Jupiter	-6248-06-04 20:09 J	-560503.85	-560503.66	-560503.45	0.0524	0.0279
Jupiter	-6243-11-22 18:14 J	-558506.92	-558506.74	-558506.55	0.0504	0.0313
Saturn	-6242-12-24 08:38 J	-558110.25	-558110.14	-558110.02	0.0273	0.0241
Uranus	-6237-05-29 17:31 J	-556491.91	-556491.77	-556491.59	0.0133	0.0107
Uranus	-6236-06-02 23:16 J	-556122.71	-556122.53	-556122.32	0.0133	0.0083

Uranus	-6235-06-07 11:45 J	-555753.25	-555753.01	-555752.74	0.0133	0.0039
Uranus	-6234-06-11 16:33 J	-555384.06	-555383.81	-555383.56	0.0133	0.0007
Uranus	-6233-06-15 04:04 J	-555014.58	-555014.33	-555014.06	0.0132	0.0026
Uranus	-6232-06-19 06:57 J	-554645.42	-554645.21	-554644.99	0.0132	0.0068
Uranus	-6231-06-23 17:45 J	-554275.93	-554275.76	-554275.55	0.0132	0.0090
Jupiter	-6231-11-27 11:02 J	-554119.27	-554119.04	-554118.82	0.0503	0.0030
Neptune	-6227-06-21 23:31 J	-552816.71	-552816.52	-552816.30	0.0089	0.0052
Saturn	-6226-06-21 08:09 J	-552452.34	-552452.16	-552451.97	0.0287	0.0197
Neptune	-6226-06-24 12:14 J	-552449.23	-552448.99	-552448.72	0.0089	0.0026
Neptune	-6225-06-26 03:21 J	-552081.60	-552081.36	-552081.11	0.0089	0.0015
Neptune	-6224-06-28 11:16 J	-551714.25	-551714.03	-551713.78	0.0089	0.0041
Neptune	-6223-07-01 05:31 J	-551346.34	-551346.27	-551346.14	0.0089	0.0082
Jupiter	-6219-12-01 16:33 J	-549731.97	-549731.81	-549731.64	0.0502	0.0370
Mars	-6215-10-23 15:36 J	-548310.04	-548309.85	-548309.67	0.1622	0.0455
Saturn	-6213-12-18 02:09 J	-547523.65	-547523.41	-547523.16	0.0275	0.0042
Mars	-6206-04-27 18:57 J	-545201.87	-545201.71	-545201.56	0.1905	0.1098
Pluto	-6202-11-09 23:02 J	-543544.75	-543544.54	-543544.30	0.0066	0.0029
Saturn	-6196-06-28 14:09 J	-541487.06	-541486.91	-541486.74	0.0289	0.0221
Uranus	-6194-11-25 15:21 J	-540606.98	-540606.86	-540606.69	0.0145	0.0120
Uranus	-6193-11-29 15:36 J	-540237.05	-540236.85	-540236.63	0.0146	0.0070
Uranus	-6192-12-04 16:33 J	-539867.06	-539866.81	-539866.56	0.0146	0.0035
Uranus	-6191-12-09 14:52 J	-539497.12	-539496.88	-539496.63	0.0146	0.0026
Uranus	-6190-12-14 19:26 J	-539126.92	-539126.69	-539126.45	0.0146	0.0061
Jupiter	-6189-05-24 14:23 J	-538964.98	-538964.90	-538964.80	0.0521	0.0477
Uranus	-6189-12-18 16:33 J	-538756.97	-538756.81	-538756.65	0.0146	0.0111
Jupiter	-6177-05-29 18:57 J	-534576.94	-534576.71	-534576.48	0.0522	0.0160
Saturn	-6167-06-22 12:14 J	-530901.20	-530900.99	-530900.77	0.0287	0.0122
Jupiter	-6165-06-03 12:28 J	-530189.19	-530188.98	-530188.76	0.0524	0.0207
Jupiter	-6160-11-22 05:16 J	-528191.43	-528191.28	-528191.12	0.0504	0.0363
Saturn	-6154-12-20 11:02 J	-525972.28	-525972.04	-525971.81	0.0275	0.0035

Uranus	-6153-05-30 07:12 J	-525810.32	-525810.20	-525810.04	0.0133	0.0114
Uranus	-6152-06-03 14:23 J	-525441.10	-525440.90	-525440.67	0.0133	0.0066
Uranus	-6151-06-08 01:55 J	-525071.66	-525071.42	-525071.15	0.0133	0.0039
Uranus	-6150-06-12 07:12 J	-524702.45	-524702.20	-524701.95	0.0133	0.0002
Uranus	-6149-06-15 17:31 J	-524333.02	-524332.77	-524332.51	0.0133	0.0037
Uranus	-6148-06-19 20:38 J	-523963.84	-523963.64	-523963.41	0.0132	0.0064
Jupiter	-6148-11-26 14:23 J	-523804.14	-523803.90	-523803.66	0.0503	0.0017
Uranus	-6147-06-24 06:43 J	-523594.35	-523594.22	-523594.05	0.0132	0.0108
Neptune	-6147-12-15 10:33 J	-523420.13	-523420.06	-523419.95	0.0088	0.0083
Uranus	-6146-06-28 09:07 J	-523225.15	-523225.12	-523225.05	0.0132	0.0129
Neptune	-6146-12-17 23:31 J	-523052.70	-523052.52	-523052.32	0.0088	0.0057
Neptune	-6145-12-19 05:45 J	-522685.51	-522685.26	-522685.00	0.0088	0.0019
Neptune	-6144-12-21 22:33 J	-522317.81	-522317.56	-522317.30	0.0088	0.0008
Neptune	-6143-12-24 02:09 J	-521950.61	-521950.41	-521950.17	0.0088	0.0046
Neptune	-6142-12-26 19:40 J	-521582.80	-521582.68	-521582.50	0.0088	0.0073
Mars	-6136-10-25 17:02 J	-519452.96	-519452.79	-519452.62	0.1620	0.0493
Jupiter	-6136-11-30 22:33 J	-519416.73	-519416.56	-519416.39	0.0502	0.0325
Saturn	-6125-12-14 05:45 J	-515385.33	-515385.26	-515385.19	0.0277	0.0266
Pluto	-6114-05-15 06:57 J	-511581.41	-511581.21	-511580.97	0.0078	0.0047
Uranus	-6110-11-26 01:40 J	-509925.57	-509925.43	-509925.25	0.0145	0.0114
Uranus	-6109-11-30 02:23 J	-509555.59	-509555.40	-509555.18	0.0145	0.0074
Saturn	-6108-06-23 17:16 J	-509350.02	-509349.78	-509349.55	0.0287	0.0053
Uranus	-6108-12-05 02:09 J	-509185.67	-509185.41	-509185.15	0.0146	0.0016
Uranus	-6107-12-10 01:40 J	-508815.67	-508815.43	-508815.19	0.0146	0.0016
Uranus	-6106-12-15 05:16 J	-508445.50	-508445.28	-508445.06	0.0146	0.0074
Uranus	-6105-12-19 03:07 J	-508075.50	-508075.37	-508075.20	0.0146	0.0115
Saturn	-6095-12-21 17:02 J	-504421.01	-504420.79	-504420.56	0.0274	0.0103
Jupiter	-6094-05-29 16:48 J	-504262.02	-504261.80	-504261.59	0.0523	0.0217
Jupiter	-6082-06-04 04:33 J	-499873.53	-499873.31	-499873.10	0.0524	0.0168
Jupiter	-6077-11-21 12:28 J	-497876.12	-497875.98	-497875.83	0.0504	0.0400

Uranus	-6069-05-30 19:11 J	-495128.87	-495128.70	-495128.50	0.0133	0.0095
Uranus	-6068-06-04 03:36 J	-494759.56	-494759.35	-494759.14	0.0133	0.0072
Uranus	-6067-06-08 14:09 J	-494390.17	-494389.91	-494389.65	0.0133	0.0026
Uranus	-6066-06-12 20:23 J	-494020.90	-494020.65	-494020.40	0.0133	0.0004
Saturn	-6066-12-16 00:43 J	-493834.64	-493834.47	-493834.31	0.0277	0.0204
Uranus	-6065-06-16 06:00 J	-493651.49	-493651.25	-493650.99	0.0133	0.0037
Jupiter	-6065-11-25 22:19 J	-493488.79	-493488.57	-493488.34	0.0503	0.0052
Uranus	-6064-06-20 10:33 J	-493282.24	-493282.06	-493281.84	0.0132	0.0078
Neptune	-6063-06-21 02:23 J	-492916.50	-492916.40	-492916.24	0.0089	0.0077
Uranus	-6063-06-24 19:55 J	-492912.82	-492912.67	-492912.48	0.0132	0.0100
Neptune	-6062-06-23 18:28 J	-492548.94	-492548.73	-492548.49	0.0089	0.0041
Neptune	-6061-06-25 01:26 J	-492181.69	-492181.44	-492181.17	0.0089	0.0011
Neptune	-6060-06-27 20:38 J	-491813.88	-491813.64	-491813.39	0.0089	0.0026
Neptune	-6059-06-30 01:55 J	-491446.62	-491446.42	-491446.21	0.0089	0.0054
Jupiter	-6053-11-30 13:40 J	-489101.12	-489100.93	-489100.73	0.0502	0.0291
Saturn	-6049-06-24 15:50 J	-487799.08	-487798.84	-487798.59	0.0287	0.0008
Saturn	-6036-12-22 13:55 J	-482870.11	-482869.92	-482869.70	0.0274	0.0160
Uranus	-6026-11-26 13:26 J	-479244.10	-479243.94	-479243.76	0.0145	0.0107
Uranus	-6025-11-30 15:07 J	-478874.08	-478873.87	-478873.64	0.0145	0.0060
Uranus	-6024-12-05 13:26 J	-478504.20	-478503.94	-478503.69	0.0146	0.0025
Uranus	-6023-12-10 13:40 J	-478134.16	-478133.93	-478133.68	0.0146	0.0035
Uranus	-6022-12-15 15:36 J	-477764.07	-477763.85	-477763.61	0.0146	0.0069
Uranus	-6021-12-19 14:52 J	-477394.02	-477393.88	-477393.74	0.0146	0.0120
Jupiter	-6011-05-29 11:16 J	-473946.23	-473946.03	-473945.83	0.0522	0.0254
Mars	-6010-10-22 14:09 J	-473435.02	-473434.91	-473434.80	0.1625	0.1246
Saturn	-6007-12-16 21:21 J	-472283.80	-472283.61	-472283.40	0.0277	0.0152

6TH MILLENNIUM BCE

This is a list of transits of Moon in the 6th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-5999-06-03 06:28 J		-469558.47	-469558.23	-469557.99	0.0523	0.0125	
Jupiter	-5994-11-21 23:16 J		-467560.64	-467560.53	-467560.42	0.0505	0.0433	
Saturn	-5990-06-26 07:40 J		-466248.43	-466248.18	-466247.93	0.0287	0.0064	
Uranus	-5986-05-27 22:19 J		-464816.63	-464816.57	-464816.46	0.0134	0.0126	
Uranus	-5985-05-31 08:09 J		-464447.30	-464447.16	-464446.96	0.0133	0.0103	
Uranus	-5984-06-04 18:00 J		-464077.97	-464077.75	-464077.52	0.0133	0.0054	
Uranus	-5983-06-09 03:21 J		-463708.61	-463708.36	-463708.09	0.0133	0.0028	
Uranus	-5982-06-13 10:19 J		-463339.31	-463339.07	-463338.81	0.0133	0.0012	
Jupiter	-5982-11-26 15:21 J		-463173.09	-463172.86	-463172.62	0.0503	0.0078	
Neptune	-5982-12-17 00:14 J		-463152.60	-463152.49	-463152.34	0.0088	0.0077	
Uranus	-5981-06-16 18:57 J		-462969.95	-462969.71	-462969.45	0.0133	0.0046	
Neptune	-5981-12-18 17:45 J		-462784.98	-462784.76	-462784.51	0.0088	0.0037	
Uranus	-5980-06-21 00:28 J		-462600.68	-462600.48	-462600.26	0.0133	0.0074	
Neptune	-5980-12-20 21:50 J		-462417.83	-462417.59	-462417.33	0.0088	0.0013	
Uranus	-5979-06-25 08:38 J		-462231.24	-462231.14	-462231.00	0.0132	0.0118	
Neptune	-5979-12-23 15:36 J		-462050.10	-462049.85	-462049.60	0.0088	0.0027	
Neptune	-5978-12-25 20:38 J		-461682.82	-461682.64	-461682.42	0.0088	0.0052	
Saturn	-5977-12-23 04:04 J		-461319.48	-461319.33	-461319.16	0.0275	0.0208	
Jupiter	-5970-11-30 20:52 J		-458785.82	-458785.63	-458785.43	0.0502	0.0255	
Pluto	-5956-11-11 08:52 J		-453691.39	-453691.13	-453690.87	0.0066	0.0003	
Saturn	-5948-12-17 19:26 J		-450732.91	-450732.69	-450732.47	0.0277	0.0102	
Uranus	-5943-11-22 11:16 J		-448932.09	-448932.03	-448931.96	0.0145	0.0139	

Uranus	-5942-11-27 04:48 J	-448562.48	-448562.30	-448562.12	0.0145	0.0102
Uranus	-5941-12-01 06:57 J	-448192.43	-448192.21	-448191.99	0.0145	0.0061
Uranus	-5940-12-06 04:04 J	-447822.59	-447822.33	-447822.07	0.0146	0.0005
Uranus	-5939-12-11 05:45 J	-447452.50	-447452.26	-447452.02	0.0146	0.0027
Uranus	-5938-12-16 06:28 J	-447082.42	-447082.23	-447082.00	0.0146	0.0085
Uranus	-5937-12-20 06:57 J	-446712.33	-446712.21	-446712.07	0.0146	0.0125
Saturn	-5931-06-26 22:19 J	-444697.78	-444697.57	-444697.33	0.0287	0.0121
Mars	-5931-10-24 13:40 J	-444578.12	-444577.93	-444577.74	0.1624	0.0012
Jupiter	-5928-05-28 12:43 J	-443631.16	-443630.97	-443630.77	0.0522	0.0298
Mars	-5922-04-26 08:09 J	-441472.39	-441472.16	-441471.93	0.1901	0.0390
Saturn	-5918-12-24 20:52 J	-439768.70	-439768.63	-439768.53	0.0275	0.0257
Jupiter	-5916-06-02 15:07 J	-439243.09	-439242.87	-439242.65	0.0524	0.0086
Jupiter	-5911-11-21 19:11 J	-437244.80	-437244.70	-437244.60	0.0504	0.0451
Jupiter	-5904-06-07 22:33 J	-434854.62	-434854.56	-434854.49	0.0525	0.0503
Uranus	-5902-05-28 12:57 J	-434134.99	-434134.96	-434134.90	0.0134	0.0131
Saturn	-5902-06-21 05:16 J	-434111.42	-434111.28	-434111.12	0.0284	0.0226
Uranus	-5901-05-31 21:36 J	-433765.79	-433765.60	-433765.38	0.0133	0.0083
Uranus	-5900-06-05 07:55 J	-433396.37	-433396.17	-433395.93	0.0133	0.0061
Uranus	-5899-06-09 16:33 J	-433027.07	-433026.81	-433026.54	0.0133	0.0014
Jupiter	-5899-11-25 22:04 J	-432857.80	-432857.58	-432857.35	0.0503	0.0106
Uranus	-5898-06-14 00:57 J	-432657.70	-432657.46	-432657.21	0.0133	0.0015
Neptune	-5898-06-22 15:36 J	-432649.03	-432648.85	-432648.64	0.0089	0.0058
Uranus	-5897-06-17 09:07 J	-432288.37	-432288.12	-432287.87	0.0133	0.0048
Neptune	-5897-06-24 11:02 J	-432281.26	-432281.04	-432280.78	0.0089	0.0035
Uranus	-5896-06-21 15:50 J	-431919.01	-431918.84	-431918.65	0.0132	0.0088
Neptune	-5896-06-26 17:02 J	-431914.04	-431913.79	-431913.53	0.0089	0.0007
Uranus	-5895-06-25 23:31 J	-431549.65	-431549.52	-431549.37	0.0132	0.0111
Neptune	-5895-06-29 11:45 J	-431546.26	-431546.01	-431545.76	0.0089	0.0031
Neptune	-5894-07-01 19:11 J	-431178.82	-431178.70	-431178.54	0.0089	0.0073
Saturn	-5889-12-18 13:55 J	-429182.16	-429181.92	-429181.68	0.0277	0.0053

Jupiter	-5887-11-30 15:36 J	-428470.05	-428469.85	-428469.64	0.0502	0.0216
Jupiter	-5875-12-04 20:09 J	-424082.72	-424082.66	-424082.60	0.0501	0.0484
Saturn	-5872-06-27 20:09 J	-423146.84	-423146.66	-423146.47	0.0287	0.0181
Uranus	-5859-11-23 01:55 J	-418250.45	-418250.42	-418250.36	0.0145	0.0142
Uranus	-5858-11-27 18:57 J	-417880.90	-417880.71	-417880.51	0.0145	0.0093
Uranus	-5857-12-01 22:04 J	-417510.80	-417510.58	-417510.33	0.0145	0.0048
Uranus	-5856-12-06 18:43 J	-417140.98	-417140.72	-417140.46	0.0146	0.0012
Uranus	-5855-12-11 20:52 J	-416770.85	-416770.63	-416770.39	0.0146	0.0048
Uranus	-5854-12-16 21:07 J	-416400.83	-416400.62	-416400.40	0.0146	0.0081
Uranus	-5853-12-20 21:36 J	-416030.68	-416030.60	-416030.47	0.0146	0.0133
Mars	-5852-10-26 20:09 J	-415720.82	-415720.66	-415720.50	0.1622	0.0922
Jupiter	-5845-05-27 22:48 J	-413315.71	-413315.55	-413315.38	0.0523	0.0350
Saturn	-5843-06-22 00:43 J	-412560.67	-412560.47	-412560.25	0.0284	0.0160
Jupiter	-5833-06-02 04:48 J	-408927.54	-408927.30	-408927.05	0.0524	0.0064
Saturn	-5830-12-20 04:19 J	-407631.58	-407631.32	-407631.07	0.0277	0.0007
Jupiter	-5828-11-20 23:02 J	-406929.59	-406929.54	-406929.49	0.0504	0.0488
Jupiter	-5821-06-07 00:43 J	-404539.57	-404539.47	-404539.36	0.0524	0.0459
Uranus	-5818-05-29 04:48 J	-403453.41	-403453.30	-403453.14	0.0134	0.0113
Uranus	-5817-06-01 12:43 J	-403084.14	-403083.97	-403083.75	0.0133	0.0090
Neptune	-5817-12-17 16:33 J	-402884.97	-402884.81	-402884.61	0.0088	0.0062
Uranus	-5816-06-06 00:14 J	-402714.71	-402714.49	-402714.24	0.0133	0.0042
Jupiter	-5816-11-25 16:48 J	-402542.02	-402541.80	-402541.58	0.0503	0.0132
Neptune	-5816-12-20 09:07 J	-402517.35	-402517.12	-402516.85	0.0088	0.0027
Uranus	-5815-06-10 07:40 J	-402345.44	-402345.18	-402344.91	0.0133	0.0017
Neptune	-5815-12-22 16:04 J	-402150.08	-402149.83	-402149.58	0.0088	0.0002
Uranus	-5814-06-14 16:33 J	-401976.05	-401975.81	-401975.56	0.0133	0.0024
Neptune	-5814-12-25 04:48 J	-401782.53	-401782.30	-401782.05	0.0088	0.0038
Uranus	-5813-06-17 23:16 J	-401606.76	-401606.53	-401606.28	0.0133	0.0057
Saturn	-5813-06-28 23:45 J	-401595.62	-401595.51	-401595.38	0.0287	0.0250
Neptune	-5813-12-26 15:50 J	-401414.98	-401414.84	-401414.65	0.0088	0.0067

Uranus	-5812-06-22 06:57 J	-401237.39	-401237.21	-401237.01	0.0132	0.0085
Uranus	-5811-06-26 12:57 J	-400868.00	-400867.96	-400867.87	0.0132	0.0129
Jupiter	-5804-11-29 22:48 J	-398154.77	-398154.55	-398154.32	0.0502	0.0174
Jupiter	-5792-12-04 13:55 J	-393767.02	-393766.92	-393766.82	0.0501	0.0449
Saturn	-5784-06-22 21:50 J	-391009.83	-391009.59	-391009.35	0.0284	0.0086
Uranus	-5775-11-23 17:31 J	-387568.88	-387568.77	-387568.63	0.0145	0.0125
Uranus	-5774-11-28 09:50 J	-387199.29	-387199.09	-387198.88	0.0145	0.0088
Uranus	-5773-12-02 13:26 J	-386829.16	-386828.94	-386828.70	0.0145	0.0047
Uranus	-5772-12-07 09:07 J	-386459.37	-386459.12	-386458.85	0.0146	0.0009
Uranus	-5771-12-12 12:57 J	-386089.20	-386088.96	-386088.73	0.0146	0.0040
Saturn	-5771-12-20 21:50 J	-386080.83	-386080.59	-386080.35	0.0277	0.0047
Uranus	-5770-12-17 11:45 J	-385719.18	-385719.01	-385718.80	0.0146	0.0098
Uranus	-5769-12-21 14:09 J	-385348.98	-385348.91	-385348.80	0.0146	0.0137
Jupiter	-5762-05-28 07:26 J	-383000.35	-383000.19	-383000.03	0.0522	0.0391
Jupiter	-5750-06-02 03:36 J	-378612.58	-378612.35	-378612.12	0.0523	0.0009
Saturn	-5742-12-15 23:02 J	-375493.65	-375493.54	-375493.43	0.0279	0.0248
Jupiter	-5738-06-07 08:38 J	-374224.30	-374224.14	-374223.98	0.0525	0.0389
Uranus	-5734-05-29 20:38 J	-372771.74	-372771.64	-372771.50	0.0134	0.0117
Neptune	-5734-06-22 00:57 J	-372748.52	-372748.46	-372748.36	0.0089	0.0084
Uranus	-5733-06-02 03:36 J	-372402.57	-372402.35	-372402.11	0.0133	0.0069
Neptune	-5733-06-23 07:26 J	-372381.40	-372381.19	-372380.98	0.0089	0.0050
Jupiter	-5733-11-24 23:31 J	-372226.74	-372226.52	-372226.29	0.0503	0.0161
Uranus	-5732-06-06 15:50 J	-372033.07	-372032.84	-372032.60	0.0133	0.0047
Neptune	-5732-06-26 00:28 J	-372013.73	-372013.48	-372013.21	0.0089	0.0019
Uranus	-5731-06-10 22:04 J	-371663.84	-371663.58	-371663.31	0.0133	0.0001
Neptune	-5731-06-28 09:36 J	-371646.34	-371646.10	-371645.84	0.0089	0.0016
Uranus	-5730-06-15 08:23 J	-371294.39	-371294.15	-371293.90	0.0133	0.0027
Neptune	-5730-06-30 22:48 J	-371278.77	-371278.55	-371278.31	0.0089	0.0046
Uranus	-5729-06-18 14:23 J	-370925.12	-370924.90	-370924.65	0.0133	0.0061
Neptune	-5729-07-02 12:43 J	-370911.05	-370910.97	-370910.84	0.0089	0.0081

Uranus	-5728-06-22 23:02 J	-370555.68	-370555.54	-370555.36	0.0132	0.0100
Uranus	-5727-06-27 04:48 J	-370186.38	-370186.30	-370186.18	0.0132	0.0122
Mars	-5726-10-24 07:55 J	-369702.33	-369702.17	-369702.01	0.1627	0.0692
Saturn	-5725-06-24 04:33 J	-369458.55	-369458.31	-369458.07	0.0284	0.0005
Jupiter	-5721-11-29 11:31 J	-367839.24	-367839.02	-367838.81	0.0502	0.0129
Saturn	-5712-12-22 01:26 J	-364529.65	-364529.44	-364529.21	0.0277	0.0107
Pluto	-5710-11-13 13:26 J	-363838.14	-363837.94	-363837.69	0.0066	0.0034
Jupiter	-5709-12-03 19:40 J	-363451.82	-363451.68	-363451.53	0.0501	0.0396
Uranus	-5691-11-24 04:48 J	-356887.38	-356887.30	-356887.17	0.0145	0.0130
Uranus	-5690-11-28 20:38 J	-356517.84	-356517.64	-356517.42	0.0145	0.0080
Uranus	-5689-12-03 01:26 J	-356147.67	-356147.44	-356147.19	0.0145	0.0035
Uranus	-5688-12-07 20:09 J	-355777.91	-355777.66	-355777.40	0.0146	0.0003
Uranus	-5687-12-13 00:28 J	-355407.69	-355407.48	-355407.25	0.0146	0.0060
Uranus	-5686-12-17 22:48 J	-355037.75	-355037.55	-355037.35	0.0146	0.0092
Uranus	-5685-12-22 01:40 J	-354667.45	-354667.43	-354667.37	0.0146	0.0144
Saturn	-5683-12-16 21:50 J	-353942.77	-353942.59	-353942.39	0.0279	0.0184
Jupiter	-5679-05-27 00:14 J	-352685.59	-352685.49	-352685.40	0.0522	0.0472
Jupiter	-5667-06-01 09:21 J	-348297.35	-348297.11	-348296.87	0.0523	0.0061
Saturn	-5666-06-26 18:57 J	-347906.93	-347906.71	-347906.48	0.0285	0.0085
Jupiter	-5655-06-06 06:00 J	-343909.43	-343909.25	-343909.06	0.0524	0.0333
Neptune	-5653-12-17 04:04 J	-342984.40	-342984.33	-342984.22	0.0088	0.0083
Saturn	-5653-12-23 10:19 J	-342978.25	-342978.07	-342977.88	0.0276	0.0176
Neptune	-5652-12-19 12:00 J	-342617.21	-342617.00	-342616.78	0.0088	0.0043
Neptune	-5651-12-21 23:16 J	-342249.78	-342249.53	-342249.26	0.0088	0.0019
Uranus	-5650-05-30 12:14 J	-342090.14	-342089.99	-342089.81	0.0134	0.0099
Jupiter	-5650-11-25 07:11 J	-341911.40	-341911.20	-341911.00	0.0504	0.0213
Neptune	-5650-12-24 11:31 J	-341882.26	-341882.02	-341881.78	0.0088	0.0021
Uranus	-5649-06-02 18:28 J	-341720.94	-341720.73	-341720.50	0.0134	0.0076
Neptune	-5649-12-25 18:00 J	-341514.96	-341514.75	-341514.51	0.0088	0.0044
Uranus	-5648-06-07 07:26 J	-341351.43	-341351.19	-341350.94	0.0133	0.0028

Neptune	-5648-12-28 10:48 J	-341147.12	-341147.05	-341146.96	0.0088	0.0084
Uranus	-5647-06-11 12:57 J	-340982.22	-340981.96	-340981.69	0.0133	0.0004
Mars	-5647-10-26 01:40 J	-340845.59	-340845.43	-340845.27	0.1625	0.0574
Uranus	-5646-06-15 23:45 J	-340612.74	-340612.51	-340612.26	0.0133	0.0037
Uranus	-5645-06-19 04:33 J	-340243.52	-340243.31	-340243.07	0.0133	0.0069
Uranus	-5644-06-23 14:23 J	-339874.06	-339873.90	-339873.73	0.0132	0.0098
Jupiter	-5638-11-29 15:36 J	-337524.08	-337523.85	-337523.61	0.0503	0.0072
Saturn	-5637-06-20 01:11 J	-337320.58	-337320.45	-337320.31	0.0283	0.0240
Jupiter	-5626-12-04 00:57 J	-333136.62	-333136.46	-333136.29	0.0502	0.0347
Saturn	-5624-12-18 01:26 J	-332391.67	-332391.44	-332391.21	0.0278	0.0110
Pluto	-5623-05-17 01:11 J	-332241.70	-332241.45	-332241.18	0.0079	0.0023
Saturn	-5607-06-28 12:00 J	-326355.18	-326355.00	-326354.81	0.0285	0.0185
Uranus	-5607-11-24 16:33 J	-326205.95	-326205.81	-326205.65	0.0145	0.0113
Uranus	-5606-11-29 07:40 J	-325836.39	-325836.18	-325835.96	0.0145	0.0078
Uranus	-5605-12-03 12:43 J	-325466.21	-325465.97	-325465.73	0.0145	0.0035
Uranus	-5604-12-08 06:28 J	-325096.48	-325096.23	-325095.97	0.0146	0.0019
Uranus	-5603-12-13 12:00 J	-324726.22	-324726.00	-324725.76	0.0146	0.0051
Uranus	-5602-12-18 09:07 J	-324356.28	-324356.12	-324355.93	0.0146	0.0108
Uranus	-5601-12-22 13:40 J	-323985.95	-323985.93	-323985.87	0.0146	0.0145
Saturn	-5594-12-25 18:14 J	-321426.84	-321426.74	-321426.65	0.0276	0.0254
Jupiter	-5584-05-31 03:07 J	-317982.60	-317982.37	-317982.14	0.0523	0.0126
Saturn	-5578-06-22 15:07 J	-315769.08	-315768.87	-315768.66	0.0284	0.0143
Jupiter	-5572-06-05 09:36 J	-313594.29	-313594.10	-313593.89	0.0524	0.0254
Neptune	-5569-06-22 14:23 J	-312481.06	-312480.90	-312480.70	0.0089	0.0066
Neptune	-5568-06-25 01:11 J	-312113.64	-312113.45	-312113.21	0.0089	0.0043
Mars	-5568-10-27 21:07 J	-311988.71	-311988.62	-311988.52	0.1624	0.1379
Uranus	-5567-05-26 10:04 J	-311778.13	-311778.08	-311778.00	0.0134	0.0130
Neptune	-5567-06-27 13:11 J	-311746.21	-311745.95	-311745.68	0.0089	0.0002
Jupiter	-5567-11-24 10:48 J	-311596.25	-311596.05	-311595.84	0.0504	0.0267
Uranus	-5566-05-31 02:09 J	-311408.56	-311408.41	-311408.25	0.0134	0.0104

Neptune	-5566-06-30 04:33 J	-311378.55	-311378.31	-311378.06	0.0089	0.0022
Uranus	-5565-06-03 07:11 J	-311039.43	-311039.20	-311038.95	0.0134	0.0057
Neptune	-5565-07-01 11:45 J	-311011.20	-311011.01	-311010.83	0.0089	0.0063
Saturn	-5565-12-19 13:11 J	-310840.18	-310839.95	-310839.71	0.0278	0.0023
Uranus	-5564-06-07 21:07 J	-310669.85	-310669.62	-310669.37	0.0133	0.0035
Neptune	-5564-07-04 06:00 J	-310643.28	-310643.25	-310643.18	0.0089	0.0087
Uranus	-5563-06-12 01:55 J	-310300.68	-310300.42	-310300.15	0.0133	0.0011
Uranus	-5562-06-16 14:23 J	-309931.14	-309930.90	-309930.66	0.0133	0.0038
Uranus	-5561-06-19 18:43 J	-309561.93	-309561.72	-309561.49	0.0133	0.0073
Uranus	-5560-06-24 05:16 J	-309192.40	-309192.28	-309192.12	0.0132	0.0110
Jupiter	-5555-11-28 19:40 J	-307208.90	-307208.68	-307208.45	0.0503	0.0019
Jupiter	-5543-12-03 07:26 J	-302821.38	-302821.19	-302820.99	0.0502	0.0283
Uranus	-5523-11-25 03:21 J	-295524.48	-295524.36	-295524.20	0.0145	0.0120
Uranus	-5522-11-29 18:14 J	-295154.95	-295154.74	-295154.50	0.0145	0.0069
Mars	-5521-10-22 05:02 J	-294827.40	-294827.29	-294827.17	0.1631	0.1311
Uranus	-5521-12-04 00:14 J	-294784.74	-294784.49	-294784.25	0.0145	0.0026
Uranus	-5520-12-08 17:02 J	-294415.04	-294414.79	-294414.53	0.0145	0.0012
Saturn	-5519-06-24 11:31 J	-294217.26	-294217.02	-294216.79	0.0284	0.0039
Uranus	-5519-12-13 22:33 J	-294044.76	-294044.56	-294044.33	0.0146	0.0070
Uranus	-5518-12-18 18:28 J	-293674.90	-293674.73	-293674.53	0.0146	0.0099
Saturn	-5506-12-22 06:43 J	-289288.44	-289288.22	-289287.99	0.0277	0.0069
Jupiter	-5501-05-30 01:40 J	-287667.64	-287667.43	-287667.22	0.0522	0.0210
Jupiter	-5489-06-03 21:50 J	-283279.83	-283279.59	-283279.36	0.0523	0.0161
Neptune	-5488-12-18 17:31 J	-282716.94	-282716.77	-282716.59	0.0088	0.0066
Neptune	-5487-12-21 06:43 J	-282349.43	-282349.22	-282348.97	0.0088	0.0035
Neptune	-5486-12-23 12:57 J	-281982.22	-281981.96	-281981.69	0.0088	0.0004
Neptune	-5485-12-25 06:00 J	-281614.48	-281614.25	-281614.00	0.0088	0.0029
Jupiter	-5484-11-23 09:07 J	-281281.28	-281281.12	-281280.95	0.0504	0.0334
Neptune	-5484-12-27 09:36 J	-281247.27	-281247.10	-281246.89	0.0088	0.0060
Uranus	-5483-05-26 21:21 J	-281096.66	-281096.61	-281096.54	0.0134	0.0131

Uranus	-5482-05-31 14:23 J	-280727.07	-280726.90	-280726.70	0.0134	0.0089
Uranus	-5481-06-03 19:11 J	-280357.91	-280357.70	-280357.45	0.0134	0.0066
Uranus	-5480-06-08 10:33 J	-279988.31	-279988.06	-279987.81	0.0133	0.0017
Uranus	-5479-06-12 14:23 J	-279619.16	-279618.90	-279618.63	0.0133	0.0006
Uranus	-5478-06-17 03:21 J	-279249.58	-279249.36	-279249.11	0.0133	0.0048
Jupiter	-5477-06-09 02:38 J	-278891.47	-278891.39	-278891.31	0.0525	0.0489
Uranus	-5477-06-20 06:43 J	-278880.42	-278880.22	-278879.99	0.0133	0.0078
Saturn	-5477-12-16 02:09 J	-278701.55	-278701.41	-278701.24	0.0279	0.0220
Uranus	-5476-06-24 18:43 J	-278510.85	-278510.72	-278510.57	0.0133	0.0108
Jupiter	-5472-11-27 23:02 J	-276893.77	-276893.54	-276893.30	0.0503	0.0059
Pluto	-5465-11-13 14:09 J	-274351.11	-274350.91	-274350.69	0.0066	0.0038
Pluto	-5464-11-14 19:40 J	-273984.70	-273984.68	-273984.60	0.0066	0.0065
Saturn	-5460-06-26 09:21 J	-272665.34	-272665.11	-272664.88	0.0285	0.0068
Jupiter	-5460-12-02 00:28 J	-272506.69	-272506.48	-272506.27	0.0502	0.0212
Saturn	-5447-12-24 00:00 J	-267736.68	-267736.50	-267736.29	0.0276	0.0164
Mars	-5442-10-25 13:11 J	-265970.14	-265969.95	-265969.75	0.1629	0.0174
Uranus	-5439-11-25 18:00 J	-264842.91	-264842.75	-264842.56	0.0144	0.0102
Uranus	-5438-11-30 08:38 J	-264473.35	-264473.14	-264472.91	0.0145	0.0068
Uranus	-5437-12-04 14:09 J	-264103.15	-264102.91	-264102.66	0.0145	0.0024
Uranus	-5436-12-09 06:43 J	-263733.46	-263733.22	-263732.96	0.0145	0.0029
Uranus	-5435-12-14 13:11 J	-263363.17	-263362.95	-263362.72	0.0146	0.0060
Uranus	-5434-12-19 08:09 J	-262993.29	-262993.16	-262992.99	0.0146	0.0118
Saturn	-5431-06-20 18:43 J	-262078.84	-262078.72	-262078.57	0.0283	0.0241
Jupiter	-5418-05-29 18:43 J	-257352.92	-257352.72	-257352.51	0.0522	0.0274
Saturn	-5418-12-18 16:04 J	-257150.04	-257149.83	-257149.60	0.0279	0.0124
Jupiter	-5406-06-03 23:31 J	-252964.74	-252964.52	-252964.29	0.0523	0.0092
Neptune	-5404-06-24 02:38 J	-252213.59	-252213.39	-252213.19	0.0089	0.0059
Neptune	-5403-06-26 19:40 J	-251845.91	-251845.68	-251845.43	0.0089	0.0025
Neptune	-5402-06-29 02:38 J	-251478.65	-251478.39	-251478.13	0.0089	0.0006
Saturn	-5401-06-28 02:09 J	-251113.60	-251113.41	-251113.20	0.0285	0.0171

Neptune	-5401-06-30 21:35 J	-251110.81	-251110.60	-251110.35	0.0089	0.0040
Jupiter	-5401-11-22 13:11 J	-250966.09	-250965.95	-250965.80	0.0505	0.0401
Neptune	-5400-07-03 02:52 J	-250743.51	-250743.38	-250743.21	0.0089	0.0071
Uranus	-5399-05-27 09:50 J	-250415.20	-250415.09	-250414.97	0.0134	0.0121
Uranus	-5398-06-01 03:07 J	-250045.53	-250045.37	-250045.17	0.0134	0.0094
Uranus	-5397-06-04 07:11 J	-249676.43	-249676.20	-249675.94	0.0134	0.0047
Uranus	-5396-06-08 23:16 J	-249306.77	-249306.53	-249306.28	0.0133	0.0025
Uranus	-5395-06-13 02:52 J	-248937.63	-248937.38	-248937.12	0.0133	0.0022
Jupiter	-5394-06-09 01:11 J	-248576.60	-248576.45	-248576.29	0.0524	0.0406
Uranus	-5394-06-17 17:31 J	-248568.01	-248567.77	-248567.54	0.0133	0.0047
Uranus	-5393-06-20 20:24 J	-248198.84	-248198.65	-248198.44	0.0133	0.0083
Uranus	-5392-06-25 08:52 J	-247829.21	-247829.13	-247829.00	0.0133	0.0120
Jupiter	-5389-11-26 17:31 J	-246578.99	-246578.77	-246578.55	0.0504	0.0131
Saturn	-5388-12-25 11:45 J	-246185.10	-246185.01	-246184.90	0.0276	0.0251
Pluto	-5377-05-18 10:33 J	-242388.29	-242388.06	-242387.80	0.0078	0.0027
Jupiter	-5377-12-01 11:16 J	-242191.24	-242191.03	-242190.81	0.0503	0.0158
Saturn	-5372-06-22 09:35 J	-240527.29	-240527.10	-240526.88	0.0283	0.0147
Jupiter	-5365-12-05 11:31 J	-237804.08	-237804.02	-237803.94	0.0501	0.0476
Mars	-5363-10-27 17:31 J	-237112.89	-237112.77	-237112.65	0.1627	0.1225
Saturn	-5359-12-20 09:35 J	-235598.33	-235598.10	-235597.86	0.0278	0.0032
Uranus	-5356-11-21 04:48 J	-234531.36	-234531.30	-234531.18	0.0144	0.0134
Uranus	-5355-11-26 08:52 J	-234161.30	-234161.13	-234160.96	0.0144	0.0107
Uranus	-5354-11-30 23:45 J	-233791.74	-233791.51	-233791.28	0.0145	0.0056
Uranus	-5353-12-05 05:31 J	-233421.52	-233421.27	-233421.02	0.0145	0.0013
Uranus	-5352-12-09 21:35 J	-233051.84	-233051.60	-233051.34	0.0145	0.0024
Uranus	-5351-12-15 04:04 J	-232681.53	-232681.33	-232681.12	0.0146	0.0081
Uranus	-5350-12-19 22:04 J	-232311.73	-232311.58	-232311.39	0.0146	0.0110
Saturn	-5342-06-30 10:33 J	-229562.15	-229562.06	-229561.96	0.0286	0.0264
Jupiter	-5335-05-28 21:21 J	-227037.78	-227037.61	-227037.44	0.0521	0.0337
Jupiter	-5323-06-02 19:11 J	-222649.94	-222649.70	-222649.45	0.0522	0.0012

Neptune	-5323-12-20 07:55 J	-222449.36	-222449.17	-222448.93	0.0088	0.0049
Neptune	-5322-12-23 01:40 J	-222081.67	-222081.43	-222081.18	0.0088	0.0026
Neptune	-5321-12-24 05:31 J	-221714.52	-221714.27	-221714.02	0.0088	0.0015
Neptune	-5320-12-26 22:19 J	-221346.80	-221346.57	-221346.32	0.0088	0.0037
Neptune	-5319-12-29 04:19 J	-220979.44	-220979.32	-220979.20	0.0088	0.0077
Jupiter	-5318-11-22 10:48 J	-220651.14	-220651.05	-220650.96	0.0506	0.0460
Uranus	-5315-05-27 21:35 J	-219733.69	-219733.60	-219733.46	0.0134	0.0120
Uranus	-5314-06-01 16:04 J	-219364.02	-219363.83	-219363.60	0.0134	0.0079
Uranus	-5313-06-04 20:38 J	-218994.88	-218994.64	-218994.41	0.0134	0.0054
Saturn	-5313-06-24 00:14 J	-218975.72	-218975.49	-218975.25	0.0284	0.0059
Uranus	-5312-06-09 12:57 J	-218625.21	-218624.96	-218624.70	0.0133	0.0006
Jupiter	-5311-06-07 17:02 J	-218261.97	-218261.79	-218261.61	0.0524	0.0328
Uranus	-5311-06-13 16:04 J	-218256.09	-218255.83	-218255.57	0.0133	0.0016
Uranus	-5310-06-18 07:11 J	-217886.43	-217886.20	-217885.98	0.0133	0.0058
Uranus	-5309-06-21 09:07 J	-217517.31	-217517.12	-217516.92	0.0133	0.0087
Uranus	-5308-06-25 22:33 J	-217147.66	-217147.56	-217147.44	0.0133	0.0118
Jupiter	-5306-11-27 02:52 J	-216263.59	-216263.38	-216263.16	0.0504	0.0196
Saturn	-5300-12-22 01:11 J	-214046.68	-214046.45	-214046.21	0.0278	0.0054
Jupiter	-5294-12-01 06:28 J	-211876.46	-211876.23	-211876.00	0.0503	0.0094
Jupiter	-5282-12-05 20:09 J	-207488.77	-207488.66	-207488.54	0.0502	0.0427
Mars	-5275-04-27 21:35 J	-205153.75	-205153.60	-205153.45	0.1896	0.1141
Uranus	-5272-11-21 21:07 J	-203849.64	-203849.62	-203849.55	0.0144	0.0142
Uranus	-5271-11-27 00:28 J	-203479.67	-203479.48	-203479.27	0.0144	0.0088
Saturn	-5271-12-16 12:14 J	-203460.10	-203459.99	-203459.86	0.0280	0.0244
Uranus	-5270-12-01 15:35 J	-203110.08	-203109.85	-203109.62	0.0145	0.0055
Uranus	-5269-12-05 21:07 J	-202739.87	-202739.62	-202739.37	0.0145	0.0010
Uranus	-5268-12-10 12:57 J	-202370.20	-202369.96	-202369.71	0.0145	0.0041
Uranus	-5267-12-15 19:55 J	-201999.88	-201999.67	-201999.45	0.0146	0.0072
Uranus	-5266-12-20 13:40 J	-201630.03	-201629.93	-201629.80	0.0146	0.0130
Saturn	-5254-06-26 08:24 J	-197424.39	-197424.15	-197423.90	0.0284	0.0020

Jupiter	-5252-05-27 19:26 J	-196722.84	-196722.69	-196722.53	0.0521	0.0400
Saturn	-5241-12-23 08:52 J	-192495.34	-192495.13	-192494.91	0.0277	0.0133
Jupiter	-5240-06-01 18:43 J	-192334.95	-192334.72	-192334.50	0.0523	0.0053
Neptune	-5240-06-23 11:02 J	-192313.16	-192313.04	-192312.87	0.0089	0.0073
Neptune	-5239-06-25 17:16 J	-191945.98	-191945.78	-191945.55	0.0089	0.0049
Neptune	-5238-06-28 13:26 J	-191578.20	-191577.94	-191577.68	0.0089	0.0008
Neptune	-5237-06-29 18:57 J	-191210.95	-191210.71	-191210.45	0.0089	0.0015
Mars	-5237-10-23 13:55 J	-191095.08	-191094.92	-191094.77	0.1633	0.0747
Neptune	-5236-07-02 12:14 J	-190843.17	-190842.99	-190842.75	0.0089	0.0056
Neptune	-5235-07-04 21:21 J	-190475.71	-190475.61	-190475.49	0.0089	0.0079
Uranus	-5231-05-28 12:00 J	-189052.13	-189052.00	-189051.83	0.0134	0.0110
Uranus	-5230-06-02 06:43 J	-188682.42	-188682.22	-188682.01	0.0134	0.0081
Uranus	-5229-06-05 10:04 J	-188313.32	-188313.08	-188312.82	0.0134	0.0035
Jupiter	-5228-06-07 04:04 J	-187946.53	-187946.33	-187946.12	0.0524	0.0267
Uranus	-5228-06-10 03:07 J	-187943.62	-187943.37	-187943.12	0.0133	0.0013
Uranus	-5227-06-14 05:31 J	-187574.51	-187574.27	-187574.00	0.0133	0.0035
Uranus	-5226-06-18 21:07 J	-187204.84	-187204.62	-187204.38	0.0133	0.0058
Uranus	-5225-06-21 23:02 J	-186835.71	-186835.54	-186835.35	0.0133	0.0094
Uranus	-5224-06-26 12:57 J	-186466.00	-186465.96	-186465.89	0.0133	0.0129
Jupiter	-5223-11-26 01:55 J	-185948.62	-185948.42	-185948.21	0.0504	0.0248
Pluto	-5219-11-15 20:24 J	-184497.91	-184497.65	-184497.38	0.0066	0.0003
Saturn	-5212-12-17 17:16 J	-181908.96	-181908.78	-181908.58	0.0279	0.0170
Jupiter	-5211-11-30 17:45 J	-181560.98	-181560.76	-181560.54	0.0503	0.0049
Jupiter	-5199-12-05 02:24 J	-177173.55	-177173.40	-177173.25	0.0502	0.0389
Saturn	-5195-06-27 07:55 J	-175873.41	-175873.17	-175872.92	0.0284	0.0087
Uranus	-5188-11-22 10:48 J	-173168.17	-173168.05	-173167.91	0.0144	0.0120
Uranus	-5187-11-27 13:26 J	-172798.12	-172797.94	-172797.73	0.0144	0.0094
Uranus	-5186-12-02 05:02 J	-172428.52	-172428.29	-172428.05	0.0145	0.0043
Uranus	-5185-12-06 10:33 J	-172058.32	-172058.06	-172057.81	0.0145	0.0002
Uranus	-5184-12-11 02:24 J	-171688.63	-171688.40	-171688.15	0.0145	0.0036

Uranus	-5183-12-16 09:07 J	-171318.30	-171318.12	-171317.92	0.0146	0.0093
Uranus	-5182-12-21 02:24 J	-170948.52	-170948.40	-170948.24	0.0146	0.0121
Saturn	-5182-12-25 08:09 J	-170944.33	-170944.16	-170943.98	0.0277	0.0198
Jupiter	-5169-05-26 23:45 J	-166407.61	-166407.51	-166407.39	0.0521	0.0452
Saturn	-5166-06-21 07:40 J	-165287.28	-165287.18	-165287.06	0.0282	0.0248
Neptune	-5159-12-19 21:35 J	-162548.74	-162548.60	-162548.43	0.0089	0.0070
Mars	-5158-10-26 11:16 J	-162238.21	-162238.03	-162237.84	0.1631	0.0207
Neptune	-5158-12-22 01:40 J	-162181.64	-162181.43	-162181.19	0.0088	0.0040
Jupiter	-5157-06-01 07:40 J	-162019.41	-162019.18	-162018.94	0.0522	0.0105
Neptune	-5157-12-23 18:28 J	-161813.99	-161813.73	-161813.47	0.0088	0.0009
Neptune	-5156-12-26 00:57 J	-161446.69	-161446.46	-161446.21	0.0088	0.0022
Neptune	-5155-12-28 12:57 J	-161079.15	-161078.96	-161078.73	0.0088	0.0054
Neptune	-5154-12-31 00:14 J	-160711.53	-160711.49	-160711.41	0.0088	0.0086
Saturn	-5153-12-18 22:48 J	-160357.77	-160357.55	-160357.33	0.0279	0.0108
Uranus	-5147-05-29 00:57 J	-158370.60	-158370.46	-158370.29	0.0134	0.0107
Uranus	-5146-06-02 19:40 J	-158000.89	-158000.68	-158000.44	0.0134	0.0066
Uranus	-5145-06-05 23:31 J	-157631.77	-157631.52	-157631.27	0.0134	0.0042
Jupiter	-5145-06-06 00:57 J	-157631.67	-157631.46	-157631.24	0.0523	0.0208 *
Uranus	-5144-06-10 16:48 J	-157262.05	-157261.80	-157261.54	0.0133	0.0007
Uranus	-5143-06-14 18:57 J	-156892.96	-156892.71	-156892.45	0.0133	0.0027
Uranus	-5142-06-19 10:33 J	-156523.26	-156523.06	-156522.83	0.0133	0.0070
Uranus	-5141-06-22 11:16 J	-156154.18	-156154.03	-156153.83	0.0133	0.0098
Uranus	-5140-06-27 01:40 J	-155784.47	-155784.43	-155784.35	0.0133	0.0129
Jupiter	-5140-11-25 16:33 J	-155632.99	-155632.81	-155632.62	0.0505	0.0291
Saturn	-5136-06-28 01:26 J	-154322.65	-154322.44	-154322.22	0.0284	0.0151
Jupiter	-5128-11-30 01:40 J	-151245.67	-151245.43	-151245.19	0.0503	0.0014
Saturn	-5123-12-26 05:31 J	-149393.35	-149393.27	-149393.18	0.0277	0.0258
Jupiter	-5116-12-04 11:02 J	-146858.19	-146858.04	-146857.88	0.0502	0.0361
Saturn	-5107-06-22 09:35 J	-143736.27	-143736.10	-143735.90	0.0282	0.0185
Uranus	-5104-11-22 23:02 J	-142486.63	-142486.54	-142486.42	0.0144	0.0129

Uranus	-5103-11-28 00:43 J	-142116.68	-142116.47	-142116.24	0.0144	0.0075
Uranus	-5102-12-02 16:33 J	-141747.04	-141746.81	-141746.57	0.0145	0.0044
Uranus	-5101-12-06 21:07 J	-141376.87	-141376.62	-141376.36	0.0145	0.0002
Uranus	-5100-12-11 13:11 J	-141007.18	-141006.95	-141006.72	0.0145	0.0052
Uranus	-5099-12-16 19:40 J	-140636.87	-140636.68	-140636.46	0.0146	0.0083
Uranus	-5098-12-21 12:57 J	-140267.01	-140266.96	-140266.87	0.0146	0.0140
Saturn	-5094-12-20 22:48 J	-138806.78	-138806.55	-138806.30	0.0279	0.0053
Jupiter	-5086-05-27 12:14 J	-136092.07	-136091.99	-136091.91	0.0521	0.0488
Saturn	-5077-06-28 21:35 J	-132771.75	-132771.60	-132771.42	0.0284	0.0208
Neptune	-5075-06-25 04:48 J	-132045.45	-132045.30	-132045.09	0.0089	0.0066
Jupiter	-5074-06-01 06:43 J	-131704.45	-131704.22	-131704.00	0.0522	0.0162
Neptune	-5074-06-27 11:45 J	-131678.24	-131678.01	-131677.76	0.0089	0.0030
Neptune	-5073-06-29 05:31 J	-131310.54	-131310.27	-131310.00	0.0089	0.0001
Neptune	-5072-07-01 15:21 J	-130943.07	-130942.86	-130942.61	0.0089	0.0035
Neptune	-5071-07-04 03:50 J	-130575.51	-130575.34	-130575.14	0.0089	0.0063
Uranus	-5064-05-25 09:21 J	-128058.16	-128058.11	-128058.04	0.0135	0.0131
Uranus	-5063-05-29 14:38 J	-127689.06	-127688.89	-127688.71	0.0134	0.0098
Uranus	-5062-06-03 08:52 J	-127319.34	-127319.13	-127318.90	0.0134	0.0069
Jupiter	-5062-06-06 13:55 J	-127316.14	-127315.92	-127315.70	0.0524	0.0155
Uranus	-5061-06-06 12:28 J	-126950.23	-126949.98	-126949.73	0.0134	0.0023
Uranus	-5060-06-11 05:45 J	-126580.52	-126580.26	-126580.00	0.0133	0.0002
Uranus	-5059-06-15 07:40 J	-126211.41	-126211.18	-126210.93	0.0133	0.0045
Uranus	-5058-06-19 23:16 J	-125841.73	-125841.53	-125841.29	0.0133	0.0068
Uranus	-5057-06-23 00:28 J	-125472.62	-125472.48	-125472.31	0.0133	0.0105
Jupiter	-5057-11-25 04:33 J	-125317.49	-125317.31	-125317.12	0.0504	0.0322
Saturn	-5048-06-23 03:50 J	-122185.56	-122185.34	-122185.11	0.0281	0.0128
Jupiter	-5045-11-29 12:00 J	-120930.22	-120930.00	-120929.77	0.0503	0.0014
Saturn	-5035-12-21 14:38 J	-117256.15	-117255.89	-117255.64	0.0279	0.0007
Jupiter	-5033-12-04 03:35 J	-116542.51	-116542.35	-116542.16	0.0502	0.0334
Mars	-5032-10-23 02:09 J	-116219.52	-116219.41	-116219.30	0.1638	0.1354

Uranus	-5020-11-23 08:52 J	-111805.27	-111805.13	-111804.96	0.0144	0.0110
Uranus	-5019-11-28 09:35 J	-111435.30	-111435.10	-111434.88	0.0144	0.0084
Saturn	-5018-06-30 22:19 J	-111220.65	-111220.57	-111220.47	0.0284	0.0262
Uranus	-5018-12-03 02:09 J	-111065.64	-111065.41	-111065.17	0.0145	0.0032
Uranus	-5017-12-07 06:00 J	-110695.51	-110695.25	-110695.00	0.0145	0.0008
Uranus	-5016-12-11 22:19 J	-110325.80	-110325.57	-110325.33	0.0145	0.0046
Uranus	-5015-12-17 04:33 J	-109955.48	-109955.31	-109955.12	0.0146	0.0101
Uranus	-5014-12-21 21:21 J	-109585.71	-109585.61	-109585.47	0.0146	0.0128

5TH MILLENNIUM BCE

This is a list of transits of Moon in the 5th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Neptune	-4994-12-21 14:09 J	-102281.10	-102280.91	-102280.68	0.0089	0.0053		
Neptune	-4993-12-22 21:35 J	-101913.82	-101913.60	-101913.35	0.0088	0.0031		
Neptune	-4992-12-25 09:07 J	-101546.38	-101546.12	-101545.85	0.0088	0.0010		
Mars	-4991-04-27 03:50 J	-101423.56	-101423.34	-101423.12	0.1891	0.0315		
Jupiter	-4991-05-31 21:35 J	-101388.81	-101388.60	-101388.39	0.0523	0.0216		
Neptune	-4991-12-27 21:50 J	-101178.81	-101178.59	-101178.34	0.0088	0.0032		
Neptune	-4990-12-30 04:04 J	-100811.46	-100811.33	-100811.15	0.0088	0.0072		
Saturn	-4989-06-23 19:12 J	-100634.94	-100634.70	-100634.45	0.0281	0.0072		
Uranus	-4980-05-25 18:14 J	-97376.78	-97376.74	-97376.67	0.0135	0.0131		
Uranus	-4979-05-30 00:00 J	-97007.66	-97007.50	-97007.31	0.0135	0.0096		
Jupiter	-4979-06-05 20:52 J	-97000.87	-97000.63	-97000.39	0.0524	0.0121		

Uranus	-4978-06-03 18:28 J	-96637.95	-96637.73	-96637.48	0.0134	0.0056
Uranus	-4977-06-06 22:33 J	-96268.80	-96268.56	-96268.30	0.0134	0.0032
Uranus	-4976-06-11 16:04 J	-95899.08	-95898.83	-95898.57	0.0134	0.0016
Saturn	-4976-12-22 04:33 J	-95705.55	-95705.31	-95705.07	0.0280	0.0039
Uranus	-4975-06-15 18:14 J	-95529.98	-95529.74	-95529.49	0.0133	0.0036
Uranus	-4974-06-20 10:04 J	-95160.27	-95160.08	-95159.86	0.0133	0.0080
Jupiter	-4974-11-25 13:40 J	-95002.08	-95001.93	-95001.78	0.0504	0.0363
Uranus	-4973-06-23 11:02 J	-94791.19	-94791.04	-94790.88	0.0133	0.0105
Pluto	-4973-11-17 00:14 J	-94644.71	-94644.49	-94644.23	0.0066	0.0024
Jupiter	-4967-06-11 00:57 J	-92612.49	-92612.46	-92612.42	0.0524	0.0516
Jupiter	-4962-11-30 06:14 J	-90614.48	-90614.24	-90614.01	0.0504	0.0035
Mars	-4953-10-25 04:47 J	-87362.49	-87362.30	-87362.12	0.1635	0.0167
Jupiter	-4950-12-04 10:19 J	-86227.25	-86227.07	-86226.88	0.0502	0.0303
Saturn	-4947-12-17 01:12 J	-85118.51	-85118.45	-85118.38	0.0282	0.0269
Uranus	-4936-11-23 20:38 J	-81123.75	-81123.64	-81123.49	0.0144	0.0120
Uranus	-4935-11-28 20:09 J	-80753.88	-80753.66	-80753.42	0.0144	0.0065
Uranus	-4934-12-03 12:57 J	-80384.19	-80383.96	-80383.71	0.0145	0.0036
Uranus	-4933-12-07 15:35 J	-80014.10	-80013.85	-80013.59	0.0145	0.0011
Uranus	-4932-12-12 08:09 J	-79644.38	-79644.16	-79643.92	0.0145	0.0059
Uranus	-4931-12-17 13:40 J	-79274.12	-79273.93	-79273.72	0.0145	0.0090
Saturn	-4930-06-25 17:45 J	-79084.00	-79083.76	-79083.51	0.0281	0.0015
Saturn	-4917-12-23 01:40 J	-74154.65	-74154.43	-74154.20	0.0280	0.0089
Neptune	-4911-06-24 06:00 J	-72145.37	-72145.25	-72145.13	0.0089	0.0077
Neptune	-4910-06-26 21:07 J	-71777.81	-71777.62	-71777.38	0.0089	0.0053
Neptune	-4909-06-28 08:52 J	-71410.37	-71410.13	-71409.88	0.0089	0.0013
Jupiter	-4908-05-31 01:12 J	-71073.66	-71073.45	-71073.23	0.0522	0.0257
Neptune	-4908-06-30 20:09 J	-71042.92	-71042.66	-71042.39	0.0089	0.0011
Neptune	-4907-07-03 12:28 J	-70675.18	-70674.98	-70674.76	0.0089	0.0050
Neptune	-4906-07-05 19:40 J	-70307.82	-70307.68	-70307.52	0.0089	0.0073
Uranus	-4896-05-26 04:19 J	-66695.43	-66695.32	-66695.20	0.0135	0.0121

Jupiter	-4896-06-05 06:00 J	-66685.48	-66685.25	-66685.03	0.0523	0.0077
Uranus	-4895-05-30 10:19 J	-66326.23	-66326.07	-66325.86	0.0135	0.0091
Uranus	-4894-06-04 04:33 J	-65956.54	-65956.31	-65956.07	0.0134	0.0060
Uranus	-4893-06-07 08:52 J	-65587.38	-65587.13	-65586.87	0.0134	0.0015
Uranus	-4892-06-12 01:55 J	-65217.68	-65217.42	-65217.16	0.0134	0.0007
Uranus	-4891-06-16 04:19 J	-64848.55	-64848.32	-64848.08	0.0133	0.0054
Jupiter	-4891-11-25 08:52 J	-64686.26	-64686.13	-64685.98	0.0505	0.0394
Uranus	-4890-06-20 20:09 J	-64478.87	-64478.66	-64478.44	0.0133	0.0074
Uranus	-4889-06-23 21:21 J	-64109.73	-64109.61	-64109.46	0.0133	0.0113
Saturn	-4888-12-17 16:47 J	-63567.95	-63567.80	-63567.63	0.0282	0.0218
Pluto	-4886-05-21 03:21 J	-63048.55	-63048.36	-63048.15	0.0079	0.0049
Jupiter	-4884-06-10 06:00 J	-62297.36	-62297.25	-62297.13	0.0525	0.0463
Jupiter	-4879-11-29 13:40 J	-60299.16	-60298.93	-60298.70	0.0503	0.0059
Mars	-4874-10-28 00:43 J	-58505.62	-58505.47	-58505.32	0.1633	0.0766
Saturn	-4871-06-26 22:33 J	-57532.79	-57532.56	-57532.32	0.0281	0.0049
Jupiter	-4867-12-04 06:00 J	-55911.44	-55911.25	-55911.06	0.0502	0.0273
Saturn	-4858-12-25 01:40 J	-52603.63	-52603.43	-52603.22	0.0280	0.0143
Uranus	-4852-11-24 09:36 J	-50442.27	-50442.10	-50441.92	0.0144	0.0100
Uranus	-4851-11-29 07:26 J	-50072.40	-50072.19	-50071.95	0.0144	0.0074
Uranus	-4850-12-04 01:40 J	-49702.66	-49702.43	-49702.18	0.0144	0.0022
Uranus	-4849-12-08 03:21 J	-49332.62	-49332.36	-49332.10	0.0145	0.0016
Uranus	-4848-12-12 20:52 J	-48962.85	-48962.63	-48962.39	0.0145	0.0055
Uranus	-4847-12-18 01:55 J	-48592.59	-48592.42	-48592.25	0.0145	0.0108
Uranus	-4846-12-22 19:12 J	-48222.79	-48222.70	-48222.61	0.0146	0.0135
Saturn	-4842-06-21 03:36 J	-46946.41	-46946.35	-46946.26	0.0280	0.0267
Neptune	-4830-12-20 19:55 J	-42380.79	-42380.67	-42380.51	0.0089	0.0073
Saturn	-4829-12-18 10:04 J	-42017.27	-42017.08	-42016.87	0.0282	0.0164
Neptune	-4829-12-22 06:00 J	-42013.46	-42013.25	-42013.00	0.0089	0.0045
Neptune	-4828-12-24 19:55 J	-41645.91	-41645.67	-41645.42	0.0088	0.0011
Neptune	-4827-12-27 01:26 J	-41278.69	-41278.44	-41278.18	0.0088	0.0017

Neptune	-4826-12-29 18:14 J	-40910.93	-40910.74	-40910.51	0.0088	0.0051
Jupiter	-4825-05-30 05:02 J	-40758.46	-40758.29	-40758.11	0.0522	0.0326
Neptune	-4825-12-30 21:36 J	-40543.68	-40543.60	-40543.45	0.0088	0.0080
Jupiter	-4813-06-04 08:52 J	-36370.37	-36370.13	-36369.88	0.0523	0.0020
Uranus	-4812-05-26 12:00 J	-36014.10	-36014.00	-36013.89	0.0135	0.0123
Saturn	-4812-06-28 05:02 J	-35981.51	-35981.29	-35981.07	0.0281	0.0124
Uranus	-4811-05-30 19:26 J	-35644.88	-35644.69	-35644.49	0.0135	0.0086
Uranus	-4810-06-04 12:43 J	-35275.21	-35274.97	-35274.72	0.0134	0.0048
Uranus	-4809-06-07 18:00 J	-34905.99	-34905.75	-34905.49	0.0134	0.0023
Uranus	-4808-06-12 10:47 J	-34536.31	-34536.05	-34535.79	0.0134	0.0024
Jupiter	-4808-11-24 11:45 J	-34371.13	-34371.01	-34370.89	0.0505	0.0431
Uranus	-4807-06-16 13:55 J	-34167.15	-34166.92	-34166.67	0.0134	0.0044
Uranus	-4806-06-21 05:16 J	-33797.46	-33797.28	-33797.07	0.0133	0.0088
Uranus	-4805-06-24 06:57 J	-33428.32	-33428.21	-33428.05	0.0133	0.0112
Jupiter	-4801-06-09 09:07 J	-31982.25	-31982.12	-31981.99	0.0525	0.0430
Saturn	-4799-12-25 23:45 J	-31052.68	-31052.51	-31052.34	0.0279	0.0203
Jupiter	-4796-11-29 04:48 J	-29983.52	-29983.30	-29983.07	0.0503	0.0096
Jupiter	-4784-12-03 08:09 J	-25596.37	-25596.16	-25595.95	0.0503	0.0227
Saturn	-4783-06-22 07:11 J	-25395.37	-25395.20	-25395.01	0.0280	0.0192
Saturn	-4770-12-20 11:16 J	-20466.24	-20466.03	-20465.80	0.0281	0.0099
Uranus	-4769-11-20 04:04 J	-20130.40	-20130.33	-20130.23	0.0143	0.0134
Uranus	-4768-11-24 23:31 J	-19760.66	-19760.52	-19760.35	0.0144	0.0108
Uranus	-4767-11-29 20:38 J	-19390.88	-19390.64	-19390.40	0.0144	0.0054
Uranus	-4766-12-04 15:21 J	-19021.10	-19020.86	-19020.62	0.0144	0.0025
Uranus	-4765-12-08 15:36 J	-18651.10	-18650.85	-18650.58	0.0145	0.0023
Uranus	-4764-12-13 10:04 J	-18281.30	-18281.08	-18280.86	0.0145	0.0067
Uranus	-4763-12-18 13:40 J	-17911.10	-17910.93	-17910.73	0.0145	0.0100
Saturn	-4753-06-29 10:33 J	-14430.23	-14430.06	-14429.87	0.0282	0.0203
Mars	-4748-10-23 21:21 J	-12487.75	-12487.61	-12487.47	0.1641	0.1065
Neptune	-4746-06-26 04:33 J	-11877.45	-11877.31	-11877.13	0.0089	0.0069

Neptune	-4745-06-27 14:38 J	-11510.12	-11509.89	-11509.62	0.0089	0.0032
Neptune	-4744-06-30 07:55 J	-11142.42	-11142.17	-11141.91	0.0089	0.0006
Neptune	-4743-07-02 13:55 J	-10775.15	-10774.92	-10774.66	0.0089	0.0032
Jupiter	-4742-05-30 10:48 J	-10443.22	-10443.05	-10442.88	0.0522	0.0374
Neptune	-4742-07-05 09:07 J	-10407.29	-10407.12	-10406.90	0.0089	0.0059
Saturn	-4740-12-26 22:19 J	-9501.60	-9501.57	-9501.50	0.0279	0.0273
Jupiter	-4730-06-04 09:21 J	-6055.34	-6055.11	-6054.88	0.0523	0.0031
Uranus	-4728-05-26 22:33 J	-5332.69	-5332.56	-5332.39	0.0135	0.0111
Pluto	-4728-11-17 23:45 J	-5157.70	-5157.51	-5157.27	0.0066	0.0038
Uranus	-4727-05-31 06:57 J	-4963.40	-4963.21	-4963.00	0.0135	0.0082
Pluto	-4727-11-19 13:55 J	-4791.03	-4790.92	-4790.78	0.0066	0.0057
Uranus	-4726-06-04 23:16 J	-4593.77	-4593.53	-4593.28	0.0134	0.0049
Uranus	-4725-06-08 05:16 J	-4224.53	-4224.28	-4224.03	0.0134	0.0007
Jupiter	-4725-11-24 00:28 J	-4055.55	-4055.48	-4055.41	0.0505	0.0478
Uranus	-4724-06-12 20:52 J	-3854.90	-3854.63	-3854.37	0.0134	0.0015
Saturn	-4724-06-23 20:23 J	-3843.87	-3843.65	-3843.43	0.0280	0.0109
Uranus	-4723-06-17 00:28 J	-3485.69	-3485.48	-3485.25	0.0134	0.0062
Uranus	-4722-06-21 15:36 J	-3116.05	-3115.85	-3115.64	0.0133	0.0082
Uranus	-4721-06-24 17:45 J	-2746.83	-2746.76	-2746.63	0.0133	0.0122
Jupiter	-4718-06-09 16:48 J	-1666.96	-1666.80	-1666.63	0.0524	0.0371
Jupiter	-4713-11-28 06:28 J	331.54	331.77	332.00	0.0504	0.0137
Saturn	-4711-12-21 20:38 J	1085.12	1085.36	1085.59	0.0281	0.0026
Mars	-4707-04-25 08:09 J	2305.68	2305.84	2306.00	0.1885	0.1182
Jupiter	-4701-12-02 20:24 J	4719.14	4719.35	4719.56	0.0503	0.0187
Jupiter	-4689-12-07 04:19 J	9106.58	9106.68	9106.80	0.0501	0.0444
Uranus	-4685-11-20 15:35 J	10551.11	10551.15	10551.25	0.0143	0.0138
Uranus	-4684-11-25 12:28 J	10920.84	10921.02	10921.22	0.0144	0.0089
Uranus	-4683-11-30 08:24 J	11290.62	11290.85	11291.09	0.0144	0.0062
Uranus	-4682-12-05 04:33 J	11660.45	11660.69	11660.94	0.0144	0.0010
Uranus	-4681-12-09 04:19 J	12030.43	12030.68	12030.94	0.0145	0.0026

Uranus	-4680-12-13 23:31 J	12400.28	12400.48	12400.71	0.0145	0.0067
Uranus	-4679-12-19 03:07 J	12770.48	12770.63	12770.78	0.0145	0.0118
Uranus	-4678-12-23 21:35 J	13140.40	13140.40	13140.43	0.0145	0.0145
Mars	-4669-10-26 04:33 J	16369.49	16369.69	16369.88	0.1638	0.0332
Saturn	-4665-06-25 13:26 J	17707.82	17708.06	17708.30	0.0281	0.0019
Neptune	-4665-12-21 18:14 J	17887.07	17887.26	17887.46	0.0089	0.0056
Neptune	-4664-12-23 23:16 J	18254.24	18254.47	18254.73	0.0089	0.0034
Neptune	-4663-12-26 17:02 J	18621.96	18622.21	18622.47	0.0089	0.0006
Neptune	-4662-12-28 20:38 J	18989.13	18989.36	18989.61	0.0088	0.0029
Neptune	-4661-12-30 13:40 J	19356.92	19357.07	19357.26	0.0088	0.0068
Jupiter	-4659-05-29 06:43 J	19871.68	19871.78	19871.90	0.0521	0.0449
Saturn	-4652-12-23 08:23 J	22636.61	22636.85	22637.09	0.0280	0.0057
Jupiter	-4647-06-03 08:52 J	24259.64	24259.87	24260.11	0.0522	0.0111
Uranus	-4644-05-27 07:11 J	25348.69	25348.80	25348.97	0.0135	0.0114
Uranus	-4643-05-31 17:02 J	25718.01	25718.21	25718.42	0.0135	0.0075
Uranus	-4642-06-05 08:23 J	26087.60	26087.85	26088.11	0.0134	0.0039
Uranus	-4641-06-08 15:36 J	26456.90	26457.15	26457.40	0.0134	0.0012
Pluto	-4640-05-22 20:23 J	26805.09	26805.35	26805.60	0.0079	0.0005
Uranus	-4640-06-13 06:28 J	26826.52	26826.77	26827.03	0.0134	0.0033
Uranus	-4639-06-17 11:16 J	27195.75	27195.97	27196.21	0.0133	0.0053
Uranus	-4638-06-22 01:26 J	27565.39	27565.56	27565.76	0.0133	0.0097
Uranus	-4637-06-25 05:02 J	27934.61	27934.71	27934.82	0.0133	0.0119
Jupiter	-4635-06-08 02:52 J	28647.42	28647.62	28647.82	0.0524	0.0284
Jupiter	-4630-11-28 12:28 J	30646.81	30647.02	30647.22	0.0504	0.0184
Saturn	-4623-12-17 17:45 J	33223.14	33223.24	33223.35	0.0283	0.0253
Jupiter	-4618-12-02 21:50 J	35034.19	35034.41	35034.65	0.0503	0.0125
Saturn	-4606-06-28 04:19 J	39259.44	39259.68	39259.93	0.0281	0.0077
Jupiter	-4606-12-07 02:23 J	39421.46	39421.60	39421.75	0.0502	0.0382
Uranus	-4601-11-21 02:38 J	41232.49	41232.61	41232.75	0.0143	0.0124
Uranus	-4600-11-26 00:28 J	41602.34	41602.52	41602.70	0.0144	0.0096

Uranus	-4599-11-30 18:43 J	41972.05	41972.28	41972.54	0.0144	0.0043
Uranus	-4598-12-05 16:04 J	42341.93	42342.17	42342.41	0.0144	0.0015
Uranus	-4597-12-09 14:09 J	42711.84	42712.09	42712.35	0.0145	0.0034
Uranus	-4596-12-14 10:33 J	43081.74	43081.94	43082.16	0.0145	0.0077
Uranus	-4595-12-19 12:28 J	43451.87	43452.02	43452.20	0.0145	0.0110
Saturn	-4593-12-24 17:31 J	44188.03	44188.23	44188.46	0.0280	0.0148
Mars	-4590-10-29 11:45 J	45226.89	45226.99	45227.10	0.1636	0.1337
Neptune	-4582-06-25 09:07 J	48022.77	48022.88	48023.01	0.0089	0.0079
Neptune	-4581-06-27 03:21 J	48390.45	48390.64	48390.86	0.0089	0.0054
Neptune	-4580-06-29 09:21 J	48757.64	48757.89	48758.15	0.0089	0.0016
Neptune	-4579-07-02 05:02 J	49125.46	49125.71	49125.98	0.0089	0.0009
Neptune	-4578-07-04 11:02 J	49492.75	49492.96	49493.18	0.0089	0.0047
Saturn	-4577-06-21 18:14 J	49846.11	49846.26	49846.41	0.0279	0.0216
Neptune	-4577-07-06 04:47 J	49860.56	49860.70	49860.88	0.0089	0.0071
Jupiter	-4564-06-02 00:28 J	54574.30	54574.52	54574.75	0.0522	0.0179
Saturn	-4564-12-19 12:57 J	54774.85	54775.04	54775.25	0.0282	0.0153
Uranus	-4560-05-27 18:43 J	56030.11	56030.28	56030.47	0.0135	0.0099
Uranus	-4559-06-01 05:02 J	56399.51	56399.71	56399.93	0.0135	0.0073
Uranus	-4558-06-05 18:57 J	56769.05	56769.29	56769.56	0.0134	0.0038
Uranus	-4557-06-09 03:07 J	57138.38	57138.63	57138.88	0.0134	0.0002
Uranus	-4556-06-13 16:33 J	57507.93	57508.19	57508.45	0.0134	0.0025
Uranus	-4555-06-17 22:19 J	57877.23	57877.43	57877.65	0.0133	0.0071
Uranus	-4554-06-22 11:16 J	58246.80	58246.97	58247.19	0.0133	0.0091
Uranus	-4553-06-25 15:50 J	58616.14	58616.16	58616.22	0.0133	0.0131
Jupiter	-4552-06-07 10:19 J	58962.73	58962.93	58963.14	0.0523	0.0221
Saturn	-4547-06-29 16:33 J	60811.00	60811.19	60811.40	0.0282	0.0172
Jupiter	-4547-11-27 12:43 J	60961.82	60962.03	60962.24	0.0505	0.0242
Mars	-4543-10-23 12:43 J	62387.99	62388.03	62388.08	0.1646	0.1587
Jupiter	-4535-12-01 19:55 J	65349.11	65349.33	65349.55	0.0504	0.0063
Saturn	-4534-12-27 05:02 J	65739.61	65739.71	65739.84	0.0279	0.0245

Jupiter	-4523-12-06 11:31 J	69736.81	69736.98	69737.16	0.0503	0.0323
Saturn	-4518-06-24 14:38 J	71397.90	71398.11	71398.33	0.0280	0.0119
Uranus	-4517-11-21 10:33 J	71913.83	71913.94	71914.07	0.0143	0.0126
Uranus	-4516-11-26 09:21 J	72283.70	72283.89	72284.10	0.0144	0.0079
Uranus	-4515-12-01 02:24 J	72653.37	72653.60	72653.85	0.0144	0.0053
Uranus	-4514-12-06 01:26 J	73023.32	73023.56	73023.80	0.0144	0.0002
Uranus	-4513-12-09 22:19 J	73393.19	73393.43	73393.69	0.0145	0.0035
Uranus	-4512-12-14 20:38 J	73763.15	73763.36	73763.56	0.0145	0.0077
Uranus	-4511-12-19 21:21 J	74133.27	74133.39	74133.53	0.0145	0.0125
Saturn	-4505-12-21 09:21 J	76326.66	76326.89	76327.13	0.0281	0.0052
Neptune	-4501-12-20 22:04 J	77787.29	77787.42	77787.58	0.0089	0.0073
Neptune	-4500-12-23 15:35 J	78154.95	78155.15	78155.39	0.0089	0.0047
Neptune	-4499-12-25 19:40 J	78522.08	78522.32	78522.58	0.0089	0.0013
Neptune	-4498-12-28 12:14 J	78889.76	78890.01	78890.28	0.0088	0.0014
Neptune	-4497-12-29 18:43 J	79257.09	79257.28	79257.51	0.0088	0.0049
Neptune	-4495-01-01 07:40 J	79624.69	79624.82	79624.96	0.0088	0.0075
Saturn	-4488-07-01 06:43 J	82362.72	82362.78	82362.86	0.0283	0.0271
Pluto	-4482-11-20 04:04 J	84695.42	84695.67	84695.92	0.0066	0.0010
Jupiter	-4481-06-01 05:45 J	84889.54	84889.74	84889.95	0.0521	0.0247
Uranus	-4477-05-23 13:12 J	86341.98	86342.05	86342.14	0.0135	0.0127
Uranus	-4476-05-28 01:40 J	86711.42	86711.57	86711.76	0.0135	0.0105
Uranus	-4475-06-01 13:55 J	87080.87	87081.08	87081.31	0.0135	0.0064
Uranus	-4474-06-06 02:52 J	87450.37	87450.62	87450.89	0.0134	0.0031
Uranus	-4473-06-09 12:43 J	87819.78	87820.03	87820.27	0.0134	0.0003
Uranus	-4472-06-14 00:57 J	88189.30	88189.54	88189.81	0.0134	0.0042
Uranus	-4471-06-18 08:24 J	88558.64	88558.85	88559.08	0.0133	0.0062
Uranus	-4470-06-22 20:38 J	88928.21	88928.36	88928.54	0.0133	0.0106
Jupiter	-4469-06-05 20:24 J	89277.12	89277.35	89277.59	0.0522	0.0132
Uranus	-4469-06-26 02:09 J	89297.53	89297.59	89297.68	0.0133	0.0127
Mars	-4464-10-25 08:24 J	91244.69	91244.85	91245.02	0.1643	0.0484

Jupiter	-4464-11-26 11:45 J	91276.82	91276.99	91277.18	0.0506	0.0298
Saturn	-4459-06-26 07:26 J	92949.56	92949.81	92950.06	0.0281	0.0023
Jupiter	-4457-06-11 00:14 J	93665.42	93665.51	93665.60	0.0524	0.0477
Jupiter	-4452-12-01 01:55 J	95664.35	95664.58	95664.82	0.0504	0.0003
Saturn	-4446-12-24 01:55 J	97878.33	97878.58	97878.82	0.0281	0.0049
Jupiter	-4440-12-05 04:33 J	100051.50	100051.69	100051.89	0.0502	0.0254
Uranus	-4433-11-21 18:14 J	102595.13	102595.26	102595.43	0.0143	0.0117
Uranus	-4432-11-26 18:14 J	102965.07	102965.26	102965.46	0.0144	0.0087
Uranus	-4431-12-01 10:04 J	103334.67	103334.92	103335.17	0.0144	0.0034
Uranus	-4430-12-06 09:35 J	103704.66	103704.90	103705.14	0.0144	0.0007
Uranus	-4429-12-10 05:02 J	104074.46	104074.71	104074.96	0.0145	0.0044
Uranus	-4428-12-15 04:04 J	104444.48	104444.67	104444.87	0.0145	0.0083
Uranus	-4427-12-20 02:52 J	104814.49	104814.62	104814.79	0.0145	0.0119
Mars	-4423-04-25 00:14 J	106036.50	106036.51	106036.53	0.1879	0.1869
Neptune	-4417-06-26 06:00 J	108290.61	108290.75	108290.92	0.0089	0.0070
Saturn	-4417-12-17 13:26 J	108464.98	108465.06	108465.17	0.0283	0.0256
Neptune	-4416-06-29 01:40 J	108658.33	108658.57	108658.82	0.0089	0.0032
Neptune	-4415-07-01 07:55 J	109025.59	109025.83	109026.09	0.0089	0.0008
Neptune	-4414-07-04 00:57 J	109393.29	109393.54	109393.80	0.0089	0.0030
Neptune	-4413-07-05 10:33 J	109760.76	109760.94	109761.14	0.0089	0.0056
Saturn	-4400-06-27 16:47 J	114500.96	114501.20	114501.46	0.0281	0.0063
Jupiter	-4398-05-31 17:31 J	115204.05	115204.23	115204.43	0.0521	0.0323
Pluto	-4394-05-25 03:21 J	116658.44	116658.64	116658.88	0.0079	0.0045
Uranus	-4392-05-28 09:35 J	117392.72	117392.90	117393.11	0.0135	0.0090
Uranus	-4391-06-01 23:02 J	117762.26	117762.46	117762.69	0.0135	0.0066
Uranus	-4390-06-06 10:33 J	118131.68	118131.94	118132.21	0.0134	0.0028
Uranus	-4389-06-09 21:35 J	118501.15	118501.40	118501.65	0.0134	0.0009
Uranus	-4388-06-14 08:24 J	118870.60	118870.85	118871.12	0.0134	0.0034
Uranus	-4387-06-18 17:16 J	119240.03	119240.22	119240.43	0.0134	0.0079
Saturn	-4387-12-25 11:45 J	119429.78	119429.99	119430.21	0.0280	0.0143

Jupiter	-4386-06-05 23:31 J	119592.26	119592.48	119592.71	0.0523	0.0071
Uranus	-4386-06-23 04:33 J	119609.51	119609.69	119609.88	0.0133	0.0097
Mars	-4385-10-27 04:33 J	120101.54	120101.69	120101.85	0.1641	0.0838
Jupiter	-4381-11-25 19:40 J	121592.15	121592.32	121592.49	0.0505	0.0351
Jupiter	-4374-06-11 03:35 J	123980.51	123980.65	123980.81	0.0524	0.0408
Saturn	-4371-06-21 23:45 J	125087.39	125087.49	125087.60	0.0279	0.0250
Jupiter	-4369-11-29 21:35 J	125979.17	125979.40	125979.63	0.0504	0.0065
Saturn	-4358-12-20 05:16 J	130016.54	130016.72	130016.92	0.0282	0.0166
Jupiter	-4357-12-04 14:38 J	130366.90	130367.11	130367.32	0.0503	0.0191
Uranus	-4349-11-22 02:52 J	133276.49	133276.62	133276.78	0.0143	0.0116
Uranus	-4348-11-27 03:35 J	133646.45	133646.65	133646.87	0.0143	0.0071
Uranus	-4347-12-01 18:14 J	134016.03	134016.26	134016.52	0.0144	0.0045
Uranus	-4346-12-06 19:40 J	134386.08	134386.32	134386.56	0.0144	0.0010
Jupiter	-4345-12-08 18:57 J	134754.22	134754.29	134754.36	0.0502	0.0479
Uranus	-4345-12-10 13:40 J	134755.83	134756.07	134756.33	0.0144	0.0041
Mars	-4344-04-28 02:24 J	134894.43	134894.60	134894.77	0.1884	0.0966
Uranus	-4344-12-15 14:09 J	135125.90	135126.09	135126.29	0.0145	0.0086
Uranus	-4343-12-20 12:00 J	135495.90	135496.00	135496.12	0.0145	0.0130
Saturn	-4341-06-28 20:09 J	136052.13	136052.34	136052.57	0.0281	0.0140
Neptune	-4336-12-22 19:26 J	138055.13	138055.31	138055.52	0.0089	0.0057
Neptune	-4335-12-25 11:16 J	138422.75	138422.97	138423.23	0.0089	0.0035
Neptune	-4334-12-27 19:26 J	138790.06	138790.31	138790.56	0.0089	0.0004
Neptune	-4333-12-29 06:43 J	139157.53	139157.78	139158.04	0.0088	0.0027
Neptune	-4332-12-31 18:28 J	139525.13	139525.27	139525.47	0.0088	0.0066
Neptune	-4330-01-03 01:11 J	139892.54	139892.55	139892.61	0.0088	0.0088
Saturn	-4328-12-26 19:11 J	140981.17	140981.30	140981.45	0.0280	0.0227
Jupiter	-4315-05-31 01:40 J	145519.41	145519.57	145519.73	0.0521	0.0371
Saturn	-4312-06-23 09:50 J	146638.73	146638.91	146639.11	0.0279	0.0177
Uranus	-4309-05-24 04:04 J	147704.57	147704.67	147704.80	0.0136	0.0120
Uranus	-4308-05-28 13:55 J	148073.93	148074.08	148074.29	0.0135	0.0100

Uranus	-4307-06-02 05:31 J	148443.52	148443.73	148443.97	0.0135	0.0056
Uranus	-4306-06-06 16:04 J	148812.92	148813.17	148813.44	0.0134	0.0026
Uranus	-4305-06-10 05:02 J	149182.47	149182.71	149182.96	0.0134	0.0007
Uranus	-4304-06-14 14:52 J	149551.89	149552.12	149552.39	0.0134	0.0048
Jupiter	-4303-06-05 03:21 J	149907.39	149907.64	149907.89	0.0522	0.0020
Uranus	-4303-06-19 01:40 J	149921.37	149921.57	149921.80	0.0134	0.0069
Uranus	-4302-06-23 11:16 J	150290.85	150290.97	150291.14	0.0133	0.0113
Uranus	-4301-06-26 20:09 J	150660.33	150660.34	150660.37	0.0133	0.0133
Saturn	-4299-12-21 15:07 J	151567.91	151568.13	151568.37	0.0282	0.0086
Jupiter	-4298-11-25 17:02 J	151907.08	151907.21	151907.35	0.0506	0.0407
Jupiter	-4291-06-09 23:31 J	154295.31	154295.48	154295.66	0.0523	0.0344
Jupiter	-4286-11-30 10:48 J	156294.73	156294.95	156295.17	0.0505	0.0120
Saturn	-4282-07-01 00:14 J	157603.35	157603.51	157603.68	0.0282	0.0207
Jupiter	-4274-12-04 15:21 J	160681.91	160682.14	160682.36	0.0503	0.0134
Uranus	-4265-11-22 13:55 J	163957.93	163958.08	163958.26	0.0143	0.0108
Uranus	-4264-11-27 14:52 J	164327.93	164328.12	164328.34	0.0143	0.0078
Uranus	-4263-12-02 05:02 J	164697.46	164697.71	164697.97	0.0144	0.0026
Uranus	-4262-12-07 06:43 J	165067.54	165067.78	165068.03	0.0144	0.0002
Jupiter	-4262-12-09 05:31 J	165069.63	165069.73	165069.85	0.0502	0.0438
Uranus	-4261-12-10 23:31 J	165437.25	165437.48	165437.73	0.0144	0.0054
Uranus	-4260-12-16 00:43 J	165807.35	165807.53	165807.73	0.0145	0.0090
Mars	-4259-10-24 13:11 J	166119.90	166120.05	166120.20	0.1650	0.1074
Uranus	-4259-12-20 21:07 J	166177.26	166177.38	166177.51	0.0145	0.0126
Saturn	-4253-06-24 11:02 J	168189.73	168189.96	168190.20	0.0279	0.0112
Neptune	-4253-06-25 21:50 J	168191.31	168191.41	168191.55	0.0089	0.0079
Neptune	-4252-06-28 05:31 J	168558.53	168558.73	168558.93	0.0089	0.0053
Neptune	-4251-06-30 22:04 J	168926.16	168926.42	168926.69	0.0089	0.0016
Neptune	-4250-07-03 09:21 J	169293.64	169293.89	169294.14	0.0089	0.0009
Neptune	-4249-07-04 20:09 J	169661.14	169661.34	169661.60	0.0089	0.0046
Neptune	-4248-07-07 12:14 J	170028.86	170029.01	170029.16	0.0089	0.0070

Saturn	-4240-12-22 14:52 J	173118.87	173119.12	173119.38	0.0282	0.0014
Pluto	-4236-11-21 17:31 J	174549.02	174549.23	174549.48	0.0066	0.0023
Jupiter	-4232-05-30 04:19 J	175834.54	175834.68	175834.84	0.0520	0.0411
Uranus	-4225-05-24 12:57 J	178385.98	178386.04	178386.12	0.0136	0.0129
Uranus	-4224-05-28 21:50 J	178755.22	178755.41	178755.64	0.0135	0.0083
Uranus	-4223-06-02 14:38 J	179124.90	179125.11	179125.35	0.0135	0.0060
Saturn	-4223-07-02 04:48 J	179154.64	179154.70	179154.79	0.0282	0.0267
Uranus	-4222-06-06 23:31 J	179494.22	179494.48	179494.75	0.0134	0.0019
Uranus	-4221-06-10 13:55 J	179863.83	179864.08	179864.33	0.0134	0.0015
Jupiter	-4220-06-04 03:07 J	180222.40	180222.63	180222.86	0.0522	0.0034
Uranus	-4220-06-14 22:04 J	180233.18	180233.42	180233.69	0.0134	0.0042
Uranus	-4219-06-19 10:33 J	180602.75	180602.94	180603.13	0.0134	0.0085
Uranus	-4218-06-23 18:43 J	180972.13	180972.28	180972.47	0.0133	0.0103
Jupiter	-4215-11-25 09:07 J	182222.79	182222.88	182223.00	0.0506	0.0445
Jupiter	-4208-06-09 09:35 J	184610.70	184610.90	184611.10	0.0524	0.0282
Jupiter	-4203-11-29 16:04 J	186609.95	186610.17	186610.39	0.0504	0.0164
Saturn	-4194-06-26 05:16 J	189740.47	189740.72	189740.97	0.0279	0.0056
Jupiter	-4191-12-04 04:48 J	190997.48	190997.70	190997.92	0.0503	0.0094
Uranus	-4181-11-23 00:57 J	194639.38	194639.54	194639.72	0.0143	0.0105
Saturn	-4181-12-23 09:35 J	194669.66	194669.90	194670.14	0.0282	0.0051
Mars	-4180-10-26 20:52 J	194977.18	194977.37	194977.56	0.1646	0.0050
Uranus	-4180-11-28 02:38 J	195009.40	195009.61	195009.85	0.0143	0.0062
Uranus	-4179-12-02 16:33 J	195378.94	195379.19	195379.44	0.0144	0.0034
Jupiter	-4179-12-08 14:09 J	195384.95	195385.09	195385.24	0.0502	0.0399
Uranus	-4178-12-07 19:11 J	195749.06	195749.30	195749.54	0.0144	0.0020
Uranus	-4177-12-11 11:16 J	196118.74	196118.97	196119.22	0.0144	0.0049
Uranus	-4176-12-16 13:40 J	196488.90	196489.07	196489.26	0.0145	0.0096
Uranus	-4175-12-21 08:38 J	196858.80	196858.86	196858.96	0.0145	0.0138
Neptune	-4172-12-22 12:00 J	197955.86	197956.00	197956.16	0.0089	0.0073
Neptune	-4171-12-24 19:55 J	198323.13	198323.33	198323.55	0.0089	0.0048

Neptune	-4170-12-27 06:14 J	198690.51	198690.76	198691.04	0.0089	0.0013
Neptune	-4169-12-28 19:55 J	199058.09	199058.33	199058.58	0.0089	0.0013
Neptune	-4168-12-31 01:40 J	199425.37	199425.57	199425.81	0.0088	0.0048
Neptune	-4166-01-02 18:43 J	199793.16	199793.28	199793.45	0.0088	0.0073
Saturn	-4152-12-18 04:48 J	205256.63	205256.70	205256.79	0.0284	0.0266
Jupiter	-4149-05-29 06:00 J	206149.66	206149.75	206149.86	0.0521	0.0465
Uranus	-4141-05-24 21:07 J	209067.25	209067.38	209067.54	0.0136	0.0111
Uranus	-4140-05-29 05:31 J	209436.53	209436.73	209436.92	0.0135	0.0091
Uranus	-4139-06-02 23:02 J	209806.24	209806.46	209806.71	0.0135	0.0046
Uranus	-4138-06-07 07:11 J	210175.54	210175.80	210176.07	0.0134	0.0019
Jupiter	-4137-06-03 15:35 J	210537.91	210538.15	210538.39	0.0522	0.0080
Uranus	-4137-06-10 22:48 J	210545.21	210545.45	210545.70	0.0134	0.0017
Uranus	-4136-06-15 06:14 J	210914.53	210914.76	210915.01	0.0134	0.0055
Uranus	-4135-06-19 19:40 J	211284.13	211284.32	211284.54	0.0134	0.0077
Saturn	-4135-06-27 01:26 J	211291.32	211291.56	211291.80	0.0279	0.0001
Uranus	-4134-06-24 02:52 J	211653.51	211653.62	211653.74	0.0133	0.0120
Jupiter	-4132-11-24 15:50 J	212538.09	212538.16	212538.25	0.0506	0.0473
Jupiter	-4125-06-08 13:11 J	214925.84	214926.05	214926.25	0.0523	0.0241
Saturn	-4122-12-25 06:57 J	216220.57	216220.79	216221.01	0.0282	0.0108
Jupiter	-4120-11-29 05:31 J	216925.53	216925.73	216925.93	0.0505	0.0207
Jupiter	-4108-12-03 15:50 J	221312.93	221313.16	221313.40	0.0504	0.0059
Mars	-4101-10-28 19:40 J	223834.24	223834.32	223834.40	0.1644	0.1440
Uranus	-4098-11-20 00:43 J	224951.46	224951.53	224951.64	0.0143	0.0133
Uranus	-4097-11-23 12:14 J	225320.84	225321.01	225321.21	0.0143	0.0098
Uranus	-4096-11-28 14:24 J	225690.89	225691.10	225691.33	0.0143	0.0066
Jupiter	-4096-12-08 00:28 J	225700.38	225700.52	225700.68	0.0502	0.0375
Uranus	-4095-12-03 03:35 J	226060.40	226060.65	226060.91	0.0144	0.0015
Uranus	-4094-12-08 06:28 J	226430.53	226430.77	226431.02	0.0144	0.0012
Uranus	-4093-12-11 21:35 J	226800.18	226800.40	226800.63	0.0144	0.0065
Saturn	-4093-12-18 21:35 J	226807.25	226807.40	226807.58	0.0284	0.0213

Uranus	-4092-12-17 00:28 J	227170.35	227170.52	227170.71	0.0145	0.0099
Uranus	-4091-12-21 18:28 J	227540.21	227540.27	227540.37	0.0145	0.0137
Neptune	-4088-06-27 18:00 J	228459.10	228459.25	228459.44	0.0089	0.0069
Neptune	-4087-06-30 06:28 J	228826.54	228826.77	228827.01	0.0089	0.0031
Neptune	-4086-07-02 17:02 J	229193.95	229194.21	229194.48	0.0089	0.0008
Neptune	-4085-07-04 09:35 J	229561.68	229561.90	229562.16	0.0089	0.0031
Neptune	-4084-07-06 16:48 J	229929.00	229929.20	229929.41	0.0089	0.0054
Saturn	-4076-06-28 01:11 J	232842.32	232842.55	232842.79	0.0279	0.0051
Jupiter	-4066-05-29 23:31 J	236465.39	236465.48	236465.57	0.0520	0.0482
Saturn	-4063-12-26 05:16 J	237771.53	237771.72	237771.92	0.0282	0.0163
Mars	-4060-04-27 21:35 J	238625.21	238625.40	238625.59	0.1878	0.0704
Uranus	-4057-05-25 07:40 J	239748.71	239748.82	239748.95	0.0135	0.0119
Uranus	-4056-05-29 15:21 J	240117.91	240118.14	240118.36	0.0135	0.0072
Uranus	-4055-06-03 09:50 J	240487.68	240487.91	240488.15	0.0135	0.0051
Jupiter	-4054-06-03 18:14 J	240853.04	240853.26	240853.50	0.0521	0.0120
Uranus	-4054-06-07 16:19 J	240856.92	240857.18	240857.45	0.0134	0.0009
Uranus	-4053-06-11 08:52 J	241226.63	241226.87	241227.12	0.0134	0.0023
Uranus	-4052-06-15 14:52 J	241595.89	241596.12	241596.38	0.0134	0.0052
Uranus	-4051-06-20 05:31 J	241965.56	241965.73	241965.92	0.0134	0.0093
Uranus	-4050-06-24 11:16 J	242334.83	242334.97	242335.13	0.0133	0.0111
Saturn	-4047-06-22 08:38 J	243428.78	243428.86	243428.96	0.0277	0.0258
Jupiter	-4042-06-09 03:21 J	245241.42	245241.64	245241.85	0.0523	0.0186
Jupiter	-4037-11-28 19:26 J	247241.10	247241.31	247241.52	0.0505	0.0242
Saturn	-4034-12-20 11:02 J	248357.75	248357.96	248358.16	0.0284	0.0159
Jupiter	-4030-06-13 21:35 J	249629.34	249629.40	249629.48	0.0525	0.0502
Jupiter	-4025-12-03 05:02 J	251628.48	251628.71	251628.93	0.0503	0.0038
Saturn	-4017-06-29 01:40 J	254393.34	254393.57	254393.80	0.0279	0.0106
Uranus	-4014-11-20 10:19 J	255632.86	255632.93	255633.03	0.0143	0.0134
Uranus	-4013-11-23 21:35 J	256002.22	256002.40	256002.59	0.0143	0.0093
Jupiter	-4013-12-07 19:40 J	256016.16	256016.32	256016.49	0.0502	0.0360

Uranus	-4012-11-28 23:31 J	256372.26	256372.48	256372.73	0.0143	0.0052
Uranus	-4011-12-03 12:28 J	256741.78	256742.02	256742.28	0.0144	0.0024
Uranus	-4010-12-08 16:04 J	257111.93	257112.17	257112.42	0.0144	0.0031
Uranus	-4009-12-12 06:57 J	257481.56	257481.79	257482.03	0.0145	0.0058
Uranus	-4008-12-17 10:33 J	257851.79	257851.94	257852.12	0.0145	0.0107
Neptune	-4007-12-24 07:26 J	258223.63	258223.81	258224.03	0.0089	0.0057
Neptune	-4006-12-26 21:21 J	258591.17	258591.39	258591.63	0.0089	0.0034
Neptune	-4005-12-28 02:38 J	258958.35	258958.61	258958.87	0.0089	0.0003
Saturn	-4004-12-26 23:16 J	259322.31	259322.47	259322.64	0.0282	0.0213
Neptune	-4004-12-30 19:55 J	259326.08	259326.33	259326.57	0.0089	0.0026
Neptune	-4002-01-01 23:16 J	259693.31	259693.47	259693.66	0.0088	0.0064
Neptune	-4001-01-04 16:04 J	260061.14	260061.17	260061.25	0.0088	0.0087

4TH MILLENNIUM BCE

This is a list of transits of Moon in the 4th millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Pluto	-3991-11-22 07:26 J	264035.71	264035.81	264035.95	0.0066	0.0058		
Pluto	-3990-11-24 02:23 J	264402.45	264402.60	264402.80	0.0066	0.0048		
Saturn	-3988-06-23 02:38 J	264979.46	264979.61	264979.78	0.0277	0.0207		
Mars	-3975-10-25 12:00 J	269851.83	269852.00	269852.18	0.1653	0.0630		
Saturn	-3975-12-21 04:48 J	269908.48	269908.70	269908.93	0.0284	0.0105		
Uranus	-3973-05-25 16:48 J	270430.04	270430.20	270430.38	0.0135	0.0100		
Uranus	-3972-05-29 23:31 J	270799.29	270799.48	270799.70	0.0135	0.0081		

Jupiter	-3971-06-03 04:19 J	271168.46	271168.68	271168.90	0.0522	0.0179
Uranus	-3971-06-03 18:57 J	271169.06	271169.29	271169.55	0.0135	0.0035
Uranus	-3970-06-08 01:11 J	271538.29	271538.55	271538.82	0.0134	0.0010
Uranus	-3969-06-11 18:43 J	271908.04	271908.28	271908.53	0.0134	0.0027
Uranus	-3968-06-15 23:45 J	272277.27	272277.49	272277.74	0.0134	0.0063
Uranus	-3967-06-20 15:07 J	272646.96	272647.13	272647.35	0.0134	0.0086
Uranus	-3966-06-24 19:55 J	273016.26	273016.33	273016.40	0.0133	0.0128
Jupiter	-3959-06-08 03:07 J	275556.40	275556.63	275556.87	0.0523	0.0126
Saturn	-3958-06-30 22:04 J	275944.22	275944.42	275944.63	0.0279	0.0163
Jupiter	-3954-11-29 05:02 J	277556.53	277556.71	277556.90	0.0505	0.0277
Jupiter	-3947-06-13 10:19 J	279944.84	279944.93	279945.03	0.0525	0.0475
Saturn	-3945-12-27 14:09 J	280873.04	280873.09	280873.17	0.0282	0.0272
Jupiter	-3942-12-03 21:07 J	281944.15	281944.38	281944.62	0.0504	0.0009
Uranus	-3930-11-20 17:31 J	286314.11	286314.23	286314.37	0.0143	0.0122
Jupiter	-3930-12-07 23:16 J	286331.30	286331.47	286331.64	0.0503	0.0329
Saturn	-3929-06-24 06:28 J	286530.57	286530.77	286530.98	0.0277	0.0147
Uranus	-3929-11-24 05:16 J	286683.54	286683.72	286683.93	0.0143	0.0090
Uranus	-3928-11-29 07:11 J	287053.58	287053.80	287054.04	0.0143	0.0056
Uranus	-3927-12-03 20:09 J	287423.09	287423.34	287423.59	0.0144	0.0006
Uranus	-3926-12-08 23:31 J	287793.23	287793.48	287793.73	0.0144	0.0019
Uranus	-3925-12-12 13:26 J	288162.84	288163.06	288163.28	0.0145	0.0074
Neptune	-3924-06-27 04:33 J	288359.60	288359.69	288359.83	0.0089	0.0079
Uranus	-3924-12-17 17:31 J	288533.07	288533.23	288533.41	0.0145	0.0105
Neptune	-3923-06-29 14:09 J	288726.90	288727.09	288727.33	0.0089	0.0052
Uranus	-3923-12-22 10:04 J	288902.92	288902.92	288902.93	0.0145	0.0145
Neptune	-3922-07-02 08:23 J	289094.61	289094.85	289095.11	0.0089	0.0017
Neptune	-3921-07-03 14:38 J	289461.86	289462.11	289462.38	0.0089	0.0011
Neptune	-3920-07-06 10:19 J	289829.72	289829.93	289830.16	0.0089	0.0046
Neptune	-3919-07-08 15:50 J	290197.03	290197.16	290197.33	0.0089	0.0071
Saturn	-3916-12-22 05:31 J	291459.50	291459.73	291459.97	0.0284	0.0045

Pluto	-3903-05-26 18:28 J	295998.08	295998.27	295998.51	0.0079	0.0047
Saturn	-3899-07-01 19:40 J	297495.19	297495.32	297495.48	0.0279	0.0228
Mars	-3896-10-27 17:02 J	298709.02	298709.21	298709.40	0.1650	0.0430
Uranus	-3890-05-22 03:50 J	300741.63	300741.66	300741.75	0.0136	0.0132
Uranus	-3889-05-26 01:55 J	301111.44	301111.58	301111.74	0.0135	0.0109
Uranus	-3888-05-30 08:23 J	301480.63	301480.85	301481.09	0.0135	0.0062
Jupiter	-3888-06-02 07:55 J	301483.61	301483.83	301484.06	0.0521	0.0219
Uranus	-3887-06-04 04:33 J	301850.45	301850.69	301850.94	0.0135	0.0042
Uranus	-3886-06-08 09:36 J	302219.64	302219.90	302220.16	0.0134	0.0003
Uranus	-3885-06-12 03:21 J	302589.41	302589.64	302589.90	0.0134	0.0032
Uranus	-3884-06-16 07:40 J	302958.60	302958.82	302959.06	0.0134	0.0061
Uranus	-3883-06-21 00:00 J	303328.34	303328.50	303328.67	0.0134	0.0100
Uranus	-3882-06-25 03:36 J	303697.53	303697.65	303697.78	0.0133	0.0118
Jupiter	-3876-06-07 13:26 J	305871.84	305872.06	305872.29	0.0523	0.0080
Jupiter	-3871-11-28 19:40 J	307872.14	307872.32	307872.50	0.0506	0.0325
Saturn	-3870-06-26 13:55 J	308081.85	308082.08	308082.32	0.0277	0.0080
Jupiter	-3864-06-12 15:50 J	310260.02	310260.16	310260.31	0.0524	0.0421
Jupiter	-3859-12-03 00:43 J	312259.30	312259.53	312259.76	0.0504	0.0031
Saturn	-3857-12-23 07:26 J	313010.57	313010.81	313011.06	0.0284	0.0023
Jupiter	-3847-12-07 18:57 J	316647.12	316647.29	316647.47	0.0503	0.0308
Uranus	-3846-11-21 00:57 J	316995.43	316995.54	316995.66	0.0143	0.0127
Uranus	-3845-11-24 12:57 J	317364.85	317365.04	317365.24	0.0143	0.0084
Uranus	-3844-11-29 14:09 J	317734.85	317735.09	317735.33	0.0143	0.0045
Uranus	-3843-12-04 02:52 J	318104.37	318104.62	318104.87	0.0144	0.0016
Neptune	-3843-12-23 22:48 J	318124.33	318124.45	318124.62	0.0089	0.0072
Uranus	-3842-12-09 05:45 J	318474.51	318474.74	318474.99	0.0144	0.0039
Neptune	-3842-12-26 03:50 J	318491.46	318491.66	318491.89	0.0089	0.0048
Uranus	-3841-12-12 19:55 J	318844.11	318844.33	318844.56	0.0145	0.0064
Neptune	-3841-12-27 21:21 J	318859.15	318859.39	318859.65	0.0089	0.0012
Uranus	-3840-12-18 00:28 J	319214.38	319214.52	319214.69	0.0145	0.0114

Neptune	-3840-12-30 01:11 J	319226.30	319226.55	319226.81	0.0089	0.0012
Neptune	-3838-01-01 18:00 J	319594.04	319594.25	319594.48	0.0089	0.0048
Neptune	-3837-01-03 23:45 J	319961.37	319961.49	319961.66	0.0088	0.0072
Saturn	-3811-06-27 20:23 J	329633.09	329633.35	329633.60	0.0278	0.0004
Uranus	-3806-05-22 10:33 J	331422.93	331422.94	331422.98	0.0136	0.0135
Uranus	-3805-05-26 08:09 J	331792.66	331792.84	331793.04	0.0136	0.0093
Jupiter	-3805-06-01 13:40 J	331798.88	331799.07	331799.27	0.0521	0.0278
Uranus	-3804-05-30 14:38 J	332161.90	332162.11	332162.34	0.0135	0.0073
Uranus	-3803-06-04 10:48 J	332531.70	332531.95	332532.21	0.0135	0.0026
Uranus	-3802-06-08 16:04 J	332900.91	332901.17	332901.43	0.0135	0.0004
Uranus	-3801-06-12 10:48 J	333270.70	333270.95	333271.20	0.0134	0.0036
Uranus	-3800-06-16 14:38 J	333639.89	333640.11	333640.34	0.0134	0.0068
Uranus	-3799-06-21 07:11 J	334009.64	334009.80	334010.00	0.0134	0.0093
Saturn	-3798-12-25 07:11 J	334561.56	334561.80	334562.04	0.0283	0.0098
Jupiter	-3793-06-06 09:50 J	336186.66	336186.91	336187.15	0.0522	0.0006
Jupiter	-3788-11-27 22:48 J	338187.29	338187.45	338187.61	0.0506	0.0366
Jupiter	-3781-06-11 09:07 J	340574.72	340574.88	340575.05	0.0524	0.0354
Mars	-3776-04-26 12:14 J	342354.78	342355.01	342355.23	0.1871	0.0150
Jupiter	-3776-12-02 14:23 J	342574.87	342575.10	342575.32	0.0504	0.0069
Mars	-3770-10-25 02:52 J	344727.51	344727.62	344727.74	0.1659	0.1306
Saturn	-3769-12-18 18:28 J	345148.14	345148.27	345148.41	0.0286	0.0231
Jupiter	-3764-12-06 18:00 J	346962.05	346962.25	346962.46	0.0503	0.0254
Uranus	-3762-11-21 09:07 J	347676.73	347676.88	347677.04	0.0143	0.0113
Uranus	-3761-11-24 21:50 J	348046.23	348046.41	348046.62	0.0143	0.0084
Uranus	-3760-11-29 22:33 J	348416.20	348416.44	348416.68	0.0143	0.0047
Neptune	-3759-06-29 05:16 J	348627.57	348627.72	348627.89	0.0089	0.0068
Uranus	-3759-12-04 11:45 J	348785.75	348785.99	348786.24	0.0144	0.0001
Neptune	-3758-07-01 11:31 J	348994.74	348994.98	348995.23	0.0089	0.0029
Uranus	-3758-12-09 14:23 J	349155.85	349156.10	349156.35	0.0144	0.0026
Neptune	-3757-07-03 07:26 J	349362.55	349362.81	349363.08	0.0089	0.0007

Uranus	-3757-12-13 04:19 J	349525.47	349525.68	349525.88	0.0144	0.0081
Neptune	-3756-07-05 13:55 J	349729.84	349730.08	349730.32	0.0089	0.0031
Uranus	-3756-12-18 08:23 J	349895.70	349895.85	349896.03	0.0145	0.0110
Neptune	-3755-07-08 07:40 J	350097.62	350097.82	350098.05	0.0089	0.0054
Saturn	-3752-06-29 03:36 J	351184.40	351184.65	351184.89	0.0278	0.0086
Pluto	-3745-11-23 18:14 J	353889.06	353889.26	353889.49	0.0066	0.0031
Saturn	-3739-12-26 12:00 J	356112.82	356113.00	356113.20	0.0283	0.0182
Saturn	-3723-06-24 03:21 J	361771.49	361771.64	361771.82	0.0276	0.0197
Uranus	-3722-05-22 17:02 J	362104.14	362104.21	362104.33	0.0136	0.0126
Jupiter	-3722-06-01 07:55 J	362113.65	362113.83	362114.01	0.0520	0.0349
Uranus	-3721-05-26 14:52 J	362473.96	362474.12	362474.30	0.0136	0.0101
Uranus	-3720-05-30 21:36 J	362843.18	362843.40	362843.65	0.0135	0.0056
Uranus	-3719-06-04 18:00 J	363213.01	363213.25	363213.51	0.0135	0.0036
Uranus	-3718-06-08 23:02 J	363582.20	363582.46	363582.72	0.0135	0.0010
Uranus	-3717-06-12 17:31 J	363951.99	363952.23	363952.49	0.0134	0.0036
Uranus	-3716-06-16 21:21 J	364321.17	364321.39	364321.61	0.0134	0.0068
Uranus	-3715-06-21 14:23 J	364690.95	364691.10	364691.26	0.0134	0.0105
Uranus	-3714-06-25 17:16 J	365060.13	365060.22	365060.31	0.0134	0.0124
Jupiter	-3710-06-06 09:07 J	366501.66	366501.88	366502.11	0.0522	0.0053
Saturn	-3710-12-21 08:23 J	366699.65	366699.85	366700.06	0.0285	0.0140
Jupiter	-3705-11-27 07:26 J	368502.70	368502.81	368502.94	0.0506	0.0424
Jupiter	-3698-06-11 17:16 J	370890.03	370890.22	370890.42	0.0523	0.0304
Saturn	-3693-06-30 15:50 J	372735.99	372736.16	372736.36	0.0279	0.0178
Jupiter	-3693-12-01 10:48 J	372889.72	372889.95	372890.18	0.0505	0.0127
Mars	-3691-10-27 02:23 J	373584.43	373584.60	373584.78	0.1656	0.0038
Jupiter	-3681-12-06 00:28 J	377277.32	377277.52	377277.72	0.0504	0.0205
Saturn	-3680-12-28 01:40 J	377664.51	377664.57	377664.65	0.0282	0.0269
Uranus	-3678-11-21 18:28 J	378358.14	378358.27	378358.42	0.0143	0.0119
Neptune	-3678-12-25 23:31 J	378392.28	378392.48	378392.68	0.0089	0.0055
Uranus	-3677-11-25 07:55 J	378727.64	378727.83	378728.05	0.0143	0.0075

Neptune	-3677-12-27 03:07 J	378759.41	378759.63	378759.88	0.0089	0.0032
Uranus	-3676-11-30 07:40 J	379097.57	379097.82	379098.07	0.0143	0.0038
Neptune	-3676-12-29 19:40 J	379127.05	379127.32	379127.58	0.0089	0.0004
Uranus	-3675-12-04 21:36 J	379467.15	379467.40	379467.64	0.0144	0.0007
Neptune	-3674-01-01 01:55 J	379494.35	379494.58	379494.82	0.0089	0.0027
Uranus	-3674-12-09 23:31 J	379837.24	379837.48	379837.72	0.0144	0.0045
Neptune	-3673-01-03 13:40 J	379861.90	379862.07	379862.28	0.0089	0.0063
Uranus	-3673-12-13 13:55 J	380206.87	380207.08	380207.30	0.0144	0.0071
Neptune	-3672-01-05 01:26 J	380229.53	380229.56	380229.63	0.0088	0.0087
Uranus	-3672-12-18 18:14 J	380577.15	380577.26	380577.42	0.0145	0.0122
Jupiter	-3669-12-10 11:45 J	381664.94	381664.99	381665.04	0.0502	0.0490
Saturn	-3664-06-25 20:38 J	383323.13	383323.36	383323.59	0.0277	0.0106
Pluto	-3657-05-27 23:16 J	385851.21	385851.47	385851.74	0.0079	0.0002
Saturn	-3651-12-22 22:33 J	388251.20	388251.44	388251.69	0.0285	0.0044
Jupiter	-3639-05-31 06:57 J	392428.67	392428.79	392428.94	0.0520	0.0415
Uranus	-3638-05-23 01:11 J	392785.47	392785.55	392785.66	0.0136	0.0126
Uranus	-3637-05-26 21:50 J	393155.22	393155.41	393155.62	0.0136	0.0086
Uranus	-3636-05-31 04:48 J	393524.49	393524.70	393524.94	0.0135	0.0065
Uranus	-3635-06-05 00:28 J	393894.27	393894.52	393894.78	0.0135	0.0018
Uranus	-3634-06-09 05:45 J	394263.49	394263.74	394264.00	0.0135	0.0004
Saturn	-3634-07-03 10:19 J	394287.90	394287.93	394287.98	0.0279	0.0275
Uranus	-3633-06-13 00:28 J	394633.28	394633.52	394633.77	0.0134	0.0044
Uranus	-3632-06-17 04:19 J	395002.47	395002.68	395002.89	0.0134	0.0073
Uranus	-3631-06-21 21:21 J	395372.24	395372.39	395372.59	0.0134	0.0100
Jupiter	-3627-06-05 11:45 J	396816.76	396816.99	396817.23	0.0521	0.0124
Jupiter	-3622-11-27 03:07 J	398817.57	398817.63	398817.71	0.0507	0.0483
Jupiter	-3615-06-10 01:26 J	401204.34	401204.56	401204.77	0.0522	0.0217
Mars	-3612-10-28 21:07 J	402441.24	402441.38	402441.53	0.1654	0.0952
Jupiter	-3610-12-01 17:02 J	403205.00	403205.21	403205.42	0.0506	0.0174
Saturn	-3605-06-27 09:21 J	404874.64	404874.89	404875.15	0.0277	0.0013

Jupiter	-3598-12-06 02:09 J	407592.36	407592.59	407592.82	0.0504	0.0149
Neptune	-3595-06-28 09:21 J	408527.77	408527.89	408528.03	0.0089	0.0077
Neptune	-3594-07-01 05:16 J	408895.51	408895.72	408895.94	0.0089	0.0050
Uranus	-3594-11-22 03:50 J	409039.50	409039.66	409039.85	0.0143	0.0103
Neptune	-3593-07-02 12:00 J	409262.76	409263.00	409263.26	0.0089	0.0017
Uranus	-3593-11-25 19:11 J	409409.10	409409.30	409409.51	0.0143	0.0075
Neptune	-3592-07-05 04:48 J	409630.44	409630.70	409630.97	0.0089	0.0011
Uranus	-3592-11-30 17:45 J	409779.00	409779.24	409779.50	0.0143	0.0037
Saturn	-3592-12-24 11:02 J	409802.72	409802.96	409803.21	0.0284	0.0059
Neptune	-3591-07-07 15:07 J	409997.92	409998.13	409998.35	0.0089	0.0045
Uranus	-3591-12-05 08:38 J	410148.62	410148.86	410149.11	0.0144	0.0009
Neptune	-3590-07-10 03:07 J	410365.50	410365.63	410365.82	0.0089	0.0072
Uranus	-3590-12-10 10:04 J	410518.68	410518.92	410519.17	0.0144	0.0035
Uranus	-3589-12-14 01:11 J	410888.35	410888.55	410888.74	0.0144	0.0090
Uranus	-3588-12-19 05:02 J	411258.57	411258.71	411258.86	0.0145	0.0117
Jupiter	-3586-12-10 06:57 J	411979.67	411979.79	411979.91	0.0502	0.0424
Saturn	-3563-12-19 07:26 J	420389.71	420389.81	420389.93	0.0286	0.0252
Jupiter	-3556-05-30 04:19 J	422743.61	422743.68	422743.76	0.0519	0.0493
Uranus	-3554-05-23 10:04 J	423466.82	423466.92	423467.06	0.0136	0.0118
Uranus	-3553-05-27 06:14 J	423836.57	423836.76	423836.96	0.0136	0.0091
Uranus	-3552-05-31 13:55 J	424205.86	424206.08	424206.33	0.0135	0.0048
Uranus	-3551-06-05 09:07 J	424575.63	424575.88	424576.14	0.0135	0.0028
Uranus	-3550-06-09 14:52 J	424944.87	424945.12	424945.38	0.0135	0.0019
Uranus	-3549-06-13 08:52 J	425314.63	425314.87	425315.12	0.0134	0.0043
Uranus	-3548-06-17 12:43 J	425683.83	425684.03	425684.25	0.0134	0.0077
Uranus	-3547-06-22 06:00 J	426053.61	426053.75	426053.90	0.0134	0.0111
Uranus	-3546-06-26 08:38 J	426422.83	426422.86	426422.91	0.0133	0.0132
Saturn	-3546-06-29 19:26 J	426426.07	426426.31	426426.56	0.0278	0.0078
Jupiter	-3544-06-03 21:36 J	427131.19	427131.40	427131.62	0.0520	0.0208
Saturn	-3533-12-26 01:55 J	431354.39	431354.58	431354.79	0.0283	0.0162

Jupiter	-3532-06-09 07:11 J	431519.58	431519.80	431520.02	0.0522	0.0154
Jupiter	-3527-11-30 18:00 J	433520.04	433520.25	433520.46	0.0506	0.0228
Saturn	-3517-06-23 15:36 J	437013.01	437013.15	437013.31	0.0276	0.0219
Jupiter	-3515-12-04 22:19 J	437907.21	437907.43	437907.66	0.0504	0.0090
Neptune	-3514-12-25 04:19 J	438292.55	438292.68	438292.85	0.0089	0.0070
Neptune	-3513-12-26 20:52 J	438660.15	438660.37	438660.59	0.0089	0.0047
Neptune	-3512-12-29 04:19 J	439027.44	439027.68	439027.93	0.0089	0.0011
Uranus	-3511-11-17 18:57 J	439351.23	439351.29	439351.39	0.0142	0.0133
Neptune	-3511-12-31 15:36 J	439394.89	439395.15	439395.42	0.0089	0.0012
Uranus	-3510-11-22 12:57 J	439720.89	439721.04	439721.22	0.0143	0.0110
Neptune	-3509-01-03 03:21 J	439762.45	439762.64	439762.86	0.0089	0.0049
Uranus	-3509-11-26 05:16 J	440090.51	440090.72	440090.94	0.0143	0.0064
Neptune	-3508-01-04 09:36 J	440129.77	440129.90	440130.08	0.0088	0.0071
Uranus	-3508-12-01 02:23 J	440460.36	440460.60	440460.86	0.0143	0.0030
Uranus	-3507-12-05 18:28 J	440830.03	440830.27	440830.52	0.0144	0.0005
Uranus	-3506-12-10 19:11 J	441200.06	441200.30	441200.54	0.0144	0.0054
Uranus	-3505-12-14 11:02 J	441569.77	441569.96	441570.18	0.0144	0.0080
Uranus	-3504-12-19 15:21 J	441940.03	441940.14	441940.24	0.0145	0.0131
Saturn	-3504-12-21 00:57 J	441941.34	441941.54	441941.75	0.0285	0.0150
Jupiter	-3503-12-09 14:38 J	442294.95	442295.11	442295.28	0.0503	0.0362
Pluto	-3499-11-26 02:38 J	443742.37	443742.61	443742.87	0.0066	0.0011
Mars	-3492-04-25 21:07 J	446085.21	446085.38	446085.55	0.1864	0.0762
Saturn	-3487-07-01 07:55 J	447977.64	447977.83	447978.03	0.0279	0.0166
Mars	-3486-10-25 22:33 J	448459.28	448459.44	448459.61	0.1664	0.0919
Saturn	-3474-12-28 20:38 J	452906.29	452906.36	452906.46	0.0283	0.0262
Uranus	-3470-05-23 20:38 J	454148.24	454148.36	454148.51	0.0136	0.0115
Uranus	-3469-05-27 15:07 J	454517.92	454518.13	454518.36	0.0135	0.0077
Uranus	-3468-05-31 23:31 J	454887.26	454887.48	454887.72	0.0135	0.0055
Uranus	-3467-06-05 17:31 J	455256.97	455257.23	455257.50	0.0135	0.0009
Uranus	-3466-06-09 23:45 J	455626.25	455626.49	455626.75	0.0134	0.0012

Uranus	-3465-06-13 17:16 J	455995.99	455996.22	455996.47	0.0134	0.0053
Uranus	-3464-06-17 21:36 J	456365.22	456365.40	456365.62	0.0134	0.0081
Uranus	-3463-06-22 15:07 J	456734.98	456735.13	456735.28	0.0134	0.0108
Jupiter	-3461-06-03 06:00 J	457446.55	457446.75	457446.95	0.0521	0.0271
Saturn	-3458-06-26 01:26 J	458564.34	458564.56	458564.79	0.0276	0.0134
Jupiter	-3449-06-08 00:43 J	461834.29	461834.53	461834.77	0.0522	0.0088
Saturn	-3445-12-22 11:02 J	463492.71	463492.96	463493.21	0.0285	0.0054
Jupiter	-3444-11-29 15:36 J	463834.97	463835.15	463835.34	0.0506	0.0283
Jupiter	-3437-06-13 03:36 J	466222.56	466222.65	466222.77	0.0523	0.0460
Jupiter	-3432-12-04 08:23 J	468222.62	468222.85	468223.09	0.0505	0.0041
Neptune	-3431-06-28 01:40 J	468428.56	468428.57	468428.62	0.0089	0.0088
Neptune	-3430-06-30 09:07 J	468795.73	468795.88	468796.06	0.0089	0.0067
Neptune	-3429-07-02 01:40 J	469163.32	469163.57	469163.83	0.0089	0.0028
Saturn	-3428-07-02 21:07 J	469529.29	469529.38	469529.50	0.0279	0.0250
Neptune	-3428-07-04 13:26 J	469530.82	469531.06	469531.32	0.0089	0.0007
Neptune	-3427-07-07 00:57 J	469898.30	469898.54	469898.80	0.0089	0.0032
Neptune	-3426-07-09 16:48 J	470266.02	470266.20	470266.42	0.0089	0.0054
Uranus	-3426-11-22 20:09 J	470402.16	470402.34	470402.55	0.0143	0.0093
Uranus	-3425-11-26 14:09 J	470771.89	470772.09	470772.31	0.0143	0.0068
Uranus	-3424-12-01 10:33 J	471141.69	471141.94	471142.20	0.0144	0.0026
Uranus	-3423-12-06 03:50 J	471511.42	471511.66	471511.90	0.0144	0.0016
Uranus	-3422-12-11 03:21 J	471881.40	471881.64	471881.89	0.0144	0.0045
Uranus	-3421-12-14 20:23 J	472251.18	472251.35	472251.53	0.0144	0.0099
Jupiter	-3420-12-08 10:04 J	472609.74	472609.92	472610.11	0.0503	0.0304
Uranus	-3420-12-19 22:48 J	472621.34	472621.45	472621.60	0.0145	0.0125
Mars	-3413-04-29 02:52 J	474943.50	474943.62	474943.75	0.1869	0.1475
Pluto	-3411-05-30 04:48 J	475704.48	475704.70	475704.96	0.0079	0.0026
Mars	-3407-10-28 09:36 J	477316.71	477316.90	477317.08	0.1660	0.0569
Saturn	-3399-06-27 04:19 J	480115.43	480115.68	480115.93	0.0277	0.0058
Uranus	-3386-05-24 06:28 J	484829.64	484829.77	484829.94	0.0136	0.0109

Saturn	-3386-12-24 17:16 J	485043.98	485044.22	485044.47	0.0285	0.0035
Uranus	-3385-05-28 00:14 J	485199.30	485199.51	485199.73	0.0135	0.0080
Uranus	-3384-06-01 09:50 J	485568.67	485568.91	485569.15	0.0135	0.0038
Uranus	-3383-06-06 03:07 J	485938.36	485938.63	485938.89	0.0135	0.0018
Uranus	-3382-06-10 10:04 J	486307.69	486307.92	486308.18	0.0134	0.0029
Uranus	-3381-06-14 02:38 J	486677.37	486677.61	486677.86	0.0134	0.0050
Uranus	-3380-06-18 07:26 J	487046.64	487046.81	487047.02	0.0134	0.0087
Uranus	-3379-06-22 23:45 J	487416.38	487416.49	487416.62	0.0134	0.0118
Jupiter	-3378-06-02 22:33 J	487761.26	487761.44	487761.63	0.0520	0.0332
Jupiter	-3366-06-08 04:33 J	492149.47	492149.69	492149.92	0.0521	0.0031
Jupiter	-3361-11-29 03:36 J	494150.47	494150.65	494150.83	0.0506	0.0325
Saturn	-3357-12-18 14:38 J	495631.08	495631.11	495631.16	0.0287	0.0283
Jupiter	-3354-06-13 04:19 J	496537.52	496537.68	496537.84	0.0523	0.0394
Jupiter	-3349-12-03 07:55 J	498537.60	498537.83	498538.06	0.0505	0.0010
Neptune	-3349-12-26 05:16 J	498560.55	498560.72	498560.94	0.0089	0.0056
Neptune	-3348-12-28 16:04 J	498927.92	498928.17	498928.42	0.0089	0.0030
Neptune	-3347-12-31 05:16 J	499295.48	499295.72	499295.97	0.0089	0.0004
Neptune	-3345-01-02 11:16 J	499662.73	499662.97	499663.23	0.0089	0.0028
Neptune	-3344-01-04 04:19 J	500030.50	500030.68	500030.86	0.0089	0.0062
Neptune	-3343-01-06 07:55 J	500397.78	500397.83	500397.90	0.0088	0.0086
Uranus	-3343-11-18 11:31 J	500713.87	500713.98	500714.10	0.0142	0.0125
Uranus	-3342-11-23 02:09 J	501083.43	501083.59	501083.79	0.0143	0.0103
Uranus	-3341-11-26 21:21 J	501453.17	501453.39	501453.62	0.0143	0.0055
Saturn	-3340-06-28 06:14 J	501666.52	501666.76	501667.01	0.0277	0.0012
Uranus	-3340-12-01 15:36 J	501822.90	501823.15	501823.41	0.0143	0.0024
Uranus	-3339-12-06 10:33 J	502192.70	502192.94	502193.19	0.0144	0.0014
Uranus	-3338-12-11 08:38 J	502562.64	502562.86	502563.11	0.0144	0.0062
Jupiter	-3337-12-08 00:14 J	502925.31	502925.51	502925.71	0.0503	0.0252
Uranus	-3337-12-15 03:21 J	502932.45	502932.64	502932.84	0.0144	0.0088
Uranus	-3336-12-20 05:16 J	503302.66	503302.72	503302.80	0.0145	0.0139

Mars	-3328-10-30 12:14 J	506173.94	506174.01	506174.08	0.1657	0.1511
Saturn	-3327-12-25 23:31 J	506595.27	506595.48	506595.70	0.0284	0.0110
Jupiter	-3325-12-12 04:19 J	507312.66	507312.68	507312.71	0.0502	0.0498
Uranus	-3302-05-24 15:21 J	515511.01	515511.14	515511.32	0.0136	0.0105
Uranus	-3301-05-28 07:11 J	515880.58	515880.80	515881.04	0.0136	0.0070
Uranus	-3300-06-01 18:00 J	516250.03	516250.25	516250.50	0.0135	0.0046
Uranus	-3299-06-06 10:04 J	516619.65	516619.92	516620.18	0.0135	0.0001
Uranus	-3298-06-10 18:28 J	516989.02	516989.27	516989.52	0.0134	0.0019
Saturn	-3298-12-20 17:45 J	517182.08	517182.24	517182.42	0.0287	0.0207
Uranus	-3297-06-14 09:50 J	517358.69	517358.91	517359.16	0.0134	0.0062
Uranus	-3296-06-18 16:19 J	517728.01	517728.18	517728.39	0.0134	0.0088
Jupiter	-3295-06-02 06:00 J	518076.60	518076.75	518076.90	0.0520	0.0391
Uranus	-3295-06-23 07:55 J	518097.72	518097.83	518097.97	0.0134	0.0117
Jupiter	-3283-06-07 07:26 J	522464.56	522464.81	522465.06	0.0522	0.0017
Saturn	-3281-06-29 10:04 J	523217.69	523217.92	523218.15	0.0277	0.0078
Mars	-3281-10-24 02:09 J	523334.54	523334.59	523334.63	0.1671	0.1605
Jupiter	-3278-11-29 05:16 J	524465.56	524465.72	524465.88	0.0506	0.0364
Jupiter	-3271-06-12 08:52 J	526852.71	526852.87	526853.04	0.0523	0.0354
Saturn	-3268-12-27 04:47 J	528146.53	528146.70	528146.89	0.0284	0.0180
Neptune	-3266-06-29 22:04 J	528696.31	528696.42	528696.59	0.0089	0.0076
Jupiter	-3266-12-03 23:02 J	528853.24	528853.46	528853.69	0.0505	0.0051
Neptune	-3265-07-01 10:47 J	529063.75	529063.95	529064.17	0.0089	0.0048
Neptune	-3264-07-03 21:07 J	529431.12	529431.38	529431.65	0.0089	0.0017
Neptune	-3263-07-06 14:23 J	529798.85	529799.10	529799.35	0.0089	0.0012
Neptune	-3262-07-08 20:52 J	530166.16	530166.37	530166.61	0.0089	0.0044
Neptune	-3261-07-10 16:19 J	530534.05	530534.18	530534.35	0.0089	0.0072
Uranus	-3259-11-18 18:43 J	531395.23	531395.28	531395.37	0.0142	0.0135
Uranus	-3258-11-23 08:52 J	531764.67	531764.87	531765.08	0.0143	0.0085
Uranus	-3257-11-27 05:16 J	532134.52	532134.72	532134.95	0.0143	0.0062
Uranus	-3256-12-01 22:47 J	532504.19	532504.45	532504.71	0.0143	0.0017

Uranus	-3255-12-06 18:57 J	532874.06	532874.29	532874.54	0.0144	0.0022
Jupiter	-3254-12-08 03:50 J	533240.44	533240.66	533240.88	0.0504	0.0202
Uranus	-3254-12-11 15:36 J	533243.92	533244.15	533244.40	0.0144	0.0053
Pluto	-3253-11-27 02:38 J	533595.36	533595.61	533595.88	0.0066	0.0010
Uranus	-3253-12-15 11:02 J	533613.81	533613.96	533614.14	0.0144	0.0106
Saturn	-3252-06-23 23:31 J	533804.34	533804.48	533804.65	0.0275	0.0221
Uranus	-3252-12-20 11:02 J	533983.87	533983.96	533984.09	0.0145	0.0130
Jupiter	-3242-12-12 17:02 J	537628.13	537628.21	537628.30	0.0502	0.0458
Saturn	-3239-12-21 12:28 J	538732.80	538733.02	538733.24	0.0287	0.0138
Saturn	-3222-07-01 12:57 J	544768.83	544769.04	544769.25	0.0276	0.0138
Uranus	-3219-05-20 07:12 J	545822.74	545822.80	545822.90	0.0136	0.0130
Uranus	-3218-05-24 23:02 J	546192.31	546192.46	546192.63	0.0136	0.0103
Uranus	-3217-05-28 13:26 J	546561.85	546562.06	546562.31	0.0136	0.0072
Uranus	-3216-06-02 02:23 J	546931.37	546931.60	546931.85	0.0135	0.0032
Uranus	-3215-06-06 17:16 J	547300.96	547301.22	547301.49	0.0135	0.0010
Uranus	-3214-06-11 03:21 J	547670.40	547670.64	547670.88	0.0134	0.0036
Uranus	-3213-06-14 17:31 J	548039.99	548040.23	548040.48	0.0134	0.0056
Jupiter	-3212-06-01 12:57 J	548391.90	548392.04	548392.19	0.0520	0.0419
Uranus	-3212-06-19 00:57 J	548409.38	548409.54	548409.73	0.0134	0.0095
Uranus	-3211-06-23 15:21 J	548779.05	548779.14	548779.25	0.0134	0.0123
Saturn	-3209-12-28 03:36 J	549697.54	549697.65	549697.79	0.0285	0.0241
Mars	-3208-04-25 16:04 J	549816.00	549816.17	549816.34	0.1857	0.1125
Mars	-3202-10-26 23:02 J	552191.29	552191.46	552191.62	0.1668	0.0540
Jupiter	-3200-06-06 13:26 J	552779.84	552780.06	552780.29	0.0521	0.0048
Jupiter	-3195-11-28 22:33 J	554781.30	554781.44	554781.58	0.0507	0.0395
Saturn	-3193-06-24 17:02 J	555355.02	555355.21	555355.42	0.0275	0.0164
Jupiter	-3188-06-11 20:52 J	557168.18	557168.37	557168.57	0.0522	0.0306
Neptune	-3185-12-25 16:33 J	558461.04	558461.19	558461.38	0.0089	0.0068
Neptune	-3184-12-28 06:14 J	558828.57	558828.76	558828.99	0.0089	0.0048
Jupiter	-3183-12-03 05:45 J	559168.51	559168.74	559168.98	0.0505	0.0090

Neptune	-3183-12-30 12:00 J	559195.74	559196.00	559196.26	0.0089	0.0010
Neptune	-3181-01-02 05:02 J	559563.46	559563.71	559563.97	0.0089	0.0012
Neptune	-3180-01-03 08:52 J	559930.66	559930.87	559931.08	0.0088	0.0049
Saturn	-3180-12-22 07:12 J	560283.58	560283.80	560284.04	0.0287	0.0080
Neptune	-3179-01-06 01:40 J	560298.42	560298.57	560298.74	0.0088	0.0070
Uranus	-3175-11-19 04:33 J	562076.56	562076.69	562076.83	0.0142	0.0118
Uranus	-3174-11-23 16:47 J	562446.03	562446.20	562446.41	0.0143	0.0096
Uranus	-3173-11-27 14:38 J	562815.88	562816.11	562816.34	0.0143	0.0046
Uranus	-3172-12-02 06:14 J	563185.51	563185.76	563186.02	0.0143	0.0018
Uranus	-3171-12-07 04:04 J	563555.43	563555.67	563555.91	0.0144	0.0022
Jupiter	-3171-12-07 20:23 J	563556.14	563556.35	563556.56	0.0504	0.0164
Uranus	-3170-12-11 23:16 J	563925.25	563925.47	563925.71	0.0144	0.0067
Uranus	-3169-12-15 20:09 J	564295.17	564295.34	564295.54	0.0144	0.0095
Pluto	-3165-05-31 15:07 J	565557.99	565558.13	565558.33	0.0079	0.0060
Saturn	-3163-07-02 08:38 J	566319.69	566319.86	566320.05	0.0276	0.0199
Jupiter	-3159-12-12 07:12 J	567943.68	567943.80	567943.93	0.0502	0.0426
Uranus	-3135-05-20 13:55 J	576504.07	576504.08	576504.13	0.0136	0.0136
Uranus	-3134-05-25 06:57 J	576873.63	576873.79	576873.98	0.0136	0.0096
Saturn	-3134-06-26 17:02 J	576905.98	576906.21	576906.43	0.0275	0.0104
Uranus	-3133-05-28 19:40 J	577243.10	577243.32	577243.57	0.0136	0.0065
Uranus	-3132-06-02 10:04 J	577612.68	577612.92	577613.16	0.0135	0.0038
Uranus	-3131-06-06 23:16 J	577982.20	577982.47	577982.74	0.0135	0.0006
Uranus	-3130-06-11 10:47 J	578351.71	578351.95	578352.20	0.0134	0.0026
Mars	-3129-04-28 21:50 J	578674.28	578674.41	578674.55	0.1863	0.1242
Jupiter	-3129-05-31 19:40 J	578707.21	578707.32	578707.42	0.0519	0.0458
Uranus	-3129-06-15 00:14 J	578721.28	578721.51	578721.74	0.0134	0.0070
Uranus	-3128-06-19 09:21 J	579090.73	579090.89	579091.08	0.0134	0.0093
Uranus	-3127-06-23 22:19 J	579460.36	579460.43	579460.55	0.0134	0.0125
Mars	-3123-10-29 02:23 J	581048.45	581048.60	581048.75	0.1664	0.0997
Saturn	-3121-12-23 05:45 J	581834.51	581834.74	581834.98	0.0287	0.0028

Jupiter	-3117-06-05 21:50 J	583095.18	583095.41	583095.65	0.0521	0.0094
Jupiter	-3112-11-28 09:07 J	585096.75	585096.88	585097.03	0.0507	0.0408
Jupiter	-3105-06-10 18:43 J	587483.08	587483.28	587483.49	0.0523	0.0257
Saturn	-3104-07-03 01:26 J	587870.48	587870.56	587870.64	0.0276	0.0261
Neptune	-3102-06-29 08:09 J	588596.81	588596.84	588596.90	0.0089	0.0087
Neptune	-3101-06-30 17:45 J	588964.08	588964.24	588964.44	0.0089	0.0066
Neptune	-3100-07-03 12:14 J	589331.77	589332.01	589332.26	0.0089	0.0027
Jupiter	-3100-12-02 21:07 J	589484.17	589484.38	589484.60	0.0505	0.0122
Neptune	-3099-07-05 18:28 J	589699.01	589699.27	589699.53	0.0089	0.0006
Neptune	-3098-07-08 13:40 J	590066.85	590067.07	590067.33	0.0089	0.0033
Neptune	-3097-07-09 19:40 J	590434.13	590434.32	590434.54	0.0089	0.0053
Uranus	-3091-11-19 14:23 J	592758.01	592758.10	592758.23	0.0142	0.0126
Uranus	-3090-11-24 02:23 J	593127.41	593127.60	593127.84	0.0143	0.0077
Uranus	-3089-11-28 01:40 J	593497.35	593497.57	593497.80	0.0143	0.0054
Uranus	-3088-12-02 16:47 J	593866.94	593867.20	593867.46	0.0143	0.0007
Jupiter	-3088-12-07 09:21 J	593871.66	593871.89	593872.12	0.0504	0.0124
Uranus	-3087-12-07 15:21 J	594236.91	594237.14	594237.39	0.0144	0.0029
Uranus	-3086-12-12 09:21 J	594606.66	594606.89	594607.13	0.0144	0.0062
Uranus	-3085-12-16 07:26 J	594976.67	594976.81	594976.97	0.0144	0.0113
Uranus	-3084-12-21 04:33 J	595346.62	595346.69	595346.79	0.0145	0.0136
Jupiter	-3076-12-11 14:23 J	598258.97	598259.10	598259.24	0.0503	0.0395
Saturn	-3075-06-27 18:43 J	598457.04	598457.28	598457.52	0.0275	0.0044
Saturn	-3062-12-25 02:23 J	603385.36	603385.60	603385.84	0.0287	0.0024
Uranus	-3051-05-20 21:50 J	607185.29	607185.41	607185.54	0.0136	0.0120
Uranus	-3050-05-25 16:19 J	607555.01	607555.18	607555.36	0.0136	0.0096
Uranus	-3049-05-29 04:04 J	607924.44	607924.67	607924.92	0.0136	0.0062
Uranus	-3048-06-02 19:55 J	608294.09	608294.33	608294.58	0.0135	0.0025
Uranus	-3047-06-07 07:55 J	608663.57	608663.83	608664.10	0.0135	0.0002
Jupiter	-3046-06-01 04:19 J	609022.63	609022.68	609022.76	0.0519	0.0500
Uranus	-3046-06-11 20:52 J	609033.14	609033.37	609033.61	0.0134	0.0044

Uranus	-3045-06-15 08:23 J	609402.62	609402.85	609403.10	0.0134	0.0063
Uranus	-3044-06-19 18:57 J	609772.14	609772.29	609772.46	0.0134	0.0103
Uranus	-3043-06-24 06:00 J	610141.71	610141.75	610141.85	0.0134	0.0129
Jupiter	-3034-06-06 01:55 J	613410.35	613410.58	613410.81	0.0521	0.0122
Jupiter	-3029-11-27 21:21 J	615412.28	615412.39	615412.51	0.0507	0.0435
Jupiter	-3022-06-11 12:28 J	617798.81	617799.02	617799.24	0.0522	0.0218
Neptune	-3021-12-25 07:26 J	618361.80	618361.81	618361.85	0.0089	0.0088
Neptune	-3020-12-27 12:00 J	618728.82	618729.00	618729.22	0.0089	0.0056
Neptune	-3019-12-30 05:31 J	619096.50	619096.73	619096.98	0.0089	0.0030
Neptune	-3017-01-01 09:21 J	619463.64	619463.89	619464.15	0.0089	0.0003
Jupiter	-3017-12-02 09:36 J	619799.68	619799.90	619800.13	0.0506	0.0162
Neptune	-3016-01-03 01:55 J	619831.34	619831.58	619831.84	0.0089	0.0028
Saturn	-3016-06-28 17:31 J	620007.98	620008.23	620008.49	0.0275	0.0018
Neptune	-3015-01-05 07:55 J	620198.67	620198.83	620199.03	0.0088	0.0061
Neptune	-3014-01-07 21:07 J	620566.33	620566.38	620566.48	0.0088	0.0085
Jupiter	-3010-06-16 08:38 J	622186.80	622186.86	622186.93	0.0524	0.0502
Uranus	-3007-11-20 01:55 J	623439.44	623439.58	623439.75	0.0142	0.0108
Pluto	-3007-11-29 05:16 J	623448.49	623448.72	623448.95	0.0066	0.0024
Uranus	-3006-11-24 12:57 J	623808.86	623809.04	623809.26	0.0143	0.0086
Uranus	-3005-11-28 12:43 J	624178.81	624179.03	624179.28	0.0143	0.0036
Jupiter	-3005-12-06 17:31 J	624187.01	624187.23	624187.45	0.0504	0.0090
Uranus	-3004-12-03 02:38 J	624548.36	624548.61	624548.87	0.0143	0.0010
Uranus	-3003-12-08 02:38 J	624918.38	624918.61	624918.85	0.0144	0.0033
Saturn	-3003-12-25 17:45 J	624936.00	624936.24	624936.49	0.0286	0.0072
Uranus	-3002-12-12 19:40 J	625288.10	625288.32	625288.54	0.0144	0.0076
Uranus	-3001-12-16 18:57 J	625658.13	625658.29	625658.47	0.0144	0.0104

3RD MILLENNIUM BCE

This is a list of transits of Moon in the 3rd millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-2997-10-25 08:09 J		627066.70	627066.84	627066.99	0.1675	0.1083	
Jupiter	-2993-12-11 11:45 J		628574.85	628574.99	628575.15	0.0503	0.0378	
Saturn	-2987-06-23 04:33 J		630594.69	630594.69	630594.70	0.0272	0.0272	
Saturn	-2974-12-19 19:26 J		635522.26	635522.31	635522.39	0.0289	0.0277	
Uranus	-2967-05-21 07:40 J		637866.73	637866.82	637866.93	0.0136	0.0127	
Uranus	-2966-05-26 03:07 J		638236.44	638236.63	638236.83	0.0136	0.0085	
Uranus	-2965-05-29 13:12 J		638605.82	638606.05	638606.31	0.0135	0.0056	
Uranus	-2964-06-03 06:14 J		638975.52	638975.76	638976.01	0.0135	0.0027	
Uranus	-2963-06-07 16:47 J		639344.94	639345.20	639345.47	0.0135	0.0015	
Uranus	-2962-06-12 06:57 J		639714.56	639714.79	639715.04	0.0134	0.0035	
Uranus	-2961-06-15 17:16 J		640084.03	640084.22	640084.46	0.0134	0.0080	
Uranus	-2960-06-20 05:31 J		640453.58	640453.73	640453.91	0.0134	0.0100	
Uranus	-2959-06-24 15:50 J		640823.16	640823.16	640823.18	0.0134	0.0133	
Saturn	-2957-06-29 15:21 J		641558.90	641559.14	641559.38	0.0275	0.0086	
Jupiter	-2951-06-05 15:07 J		643725.91	643726.13	643726.36	0.0520	0.0163	
Jupiter	-2946-11-28 10:33 J		645727.84	645727.94	645728.04	0.0508	0.0462	
Saturn	-2944-12-26 12:43 J		646486.81	646487.03	646487.25	0.0286	0.0127	
Jupiter	-2939-06-10 05:02 J		648113.48	648113.71	648113.95	0.0522	0.0148	
Neptune	-2937-06-30 07:26 J		648864.70	648864.81	648864.96	0.0089	0.0076	
Neptune	-2936-07-02 13:55 J		649231.86	649232.08	649232.31	0.0089	0.0046	
Neptune	-2935-07-05 09:50 J		649599.65	649599.91	649600.17	0.0089	0.0017	
Neptune	-2934-07-07 16:04 J		649966.93	649967.17	649967.43	0.0089	0.0012	

Jupiter	-2934-12-02 18:00 J	650115.05	650115.25	650115.46	0.0506	0.0191
Neptune	-2933-07-09 09:36 J	650334.69	650334.90	650335.16	0.0089	0.0043
Neptune	-2932-07-11 19:26 J	650702.19	650702.31	650702.48	0.0089	0.0072
Saturn	-2928-06-24 12:43 J	652145.88	652146.03	652146.20	0.0273	0.0202
Jupiter	-2927-06-15 11:31 J	652501.86	652501.98	652502.10	0.0524	0.0439
Uranus	-2924-11-15 12:43 J	653751.01	653751.03	653751.04	0.0142	0.0141
Uranus	-2923-11-20 11:45 J	654120.87	654120.99	654121.16	0.0142	0.0115
Uranus	-2922-11-24 23:02 J	654490.25	654490.46	654490.70	0.0143	0.0066
Jupiter	-2922-12-07 10:19 J	654502.70	654502.93	654503.16	0.0505	0.0055
Uranus	-2921-11-28 23:45 J	654860.26	654860.49	654860.73	0.0143	0.0044
Uranus	-2920-12-03 13:12 J	655229.79	655230.05	655230.30	0.0143	0.0005
Pluto	-2919-06-02 12:57 J	655410.95	655411.04	655411.13	0.0079	0.0074
Uranus	-2919-12-08 13:55 J	655599.85	655600.08	655600.32	0.0144	0.0038
Mars	-2918-10-28 11:16 J	655923.79	655923.97	655924.15	0.1672	0.0051
Uranus	-2918-12-13 05:16 J	655969.52	655969.72	655969.96	0.0144	0.0073
Uranus	-2917-12-17 05:45 J	656339.63	656339.74	656339.89	0.0145	0.0122
Uranus	-2916-12-22 00:57 J	656709.54	656709.54	656709.57	0.0145	0.0145
Saturn	-2915-12-20 23:16 J	657073.32	657073.47	657073.65	0.0289	0.0211
Jupiter	-2910-12-11 12:28 J	658889.85	658890.02	658890.19	0.0503	0.0341
Saturn	-2898-07-01 18:14 J	663110.07	663110.26	663110.47	0.0275	0.0159
Saturn	-2885-12-27 16:47 J	668038.04	668038.20	668038.38	0.0286	0.0195
Uranus	-2883-05-21 18:14 J	668548.12	668548.26	668548.44	0.0136	0.0109
Uranus	-2882-05-26 15:07 J	668917.94	668918.13	668918.32	0.0136	0.0086
Uranus	-2881-05-30 00:43 J	669287.29	669287.53	669287.78	0.0135	0.0050
Uranus	-2880-06-03 18:57 J	669657.04	669657.29	669657.54	0.0135	0.0015
Uranus	-2879-06-08 04:04 J	670026.41	670026.67	670026.94	0.0135	0.0009
Uranus	-2878-06-12 19:26 J	670396.08	670396.31	670396.54	0.0134	0.0054
Uranus	-2877-06-16 04:04 J	670765.46	670765.67	670765.91	0.0134	0.0072
Uranus	-2876-06-20 16:47 J	671135.08	671135.20	671135.35	0.0134	0.0113
Saturn	-2869-06-25 22:33 J	673697.22	673697.44	673697.66	0.0273	0.0125

Jupiter	-2868-06-04 06:14 J	674040.54	674040.76	674040.98	0.0520	0.0228
Jupiter	-2863-11-27 13:12 J	676043.02	676043.05	676043.08	0.0508	0.0501
Jupiter	-2856-06-09 14:23 J	678428.87	678429.10	678429.32	0.0522	0.0095
Saturn	-2856-12-22 03:36 J	678624.43	678624.65	678624.88	0.0288	0.0135
Neptune	-2856-12-27 06:28 J	678629.60	678629.77	678629.93	0.0089	0.0067
Neptune	-2855-12-29 09:50 J	678996.71	678996.91	678997.13	0.0089	0.0048
Neptune	-2853-01-01 01:55 J	679364.32	679364.58	679364.84	0.0089	0.0010
Neptune	-2852-01-02 08:09 J	679731.60	679731.84	679732.09	0.0089	0.0011
Neptune	-2851-01-04 19:40 J	680099.12	680099.32	680099.57	0.0089	0.0048
Jupiter	-2851-12-02 06:28 J	680430.56	680430.77	680430.97	0.0506	0.0240
Neptune	-2850-01-07 07:26 J	680466.68	680466.81	680466.99	0.0088	0.0069
Mars	-2845-04-28 05:31 J	682404.53	682404.73	682404.93	0.1855	0.0743
Jupiter	-2844-06-14 17:45 J	682817.08	682817.24	682817.41	0.0523	0.0384
Uranus	-2840-11-15 21:36 J	684432.40	684432.40	684432.45	0.0142	0.0141
Saturn	-2839-07-03 06:14 J	684661.66	684661.76	684661.89	0.0276	0.0243
Mars	-2839-10-30 08:52 J	684780.81	684780.87	684780.93	0.1668	0.1564
Uranus	-2839-11-20 21:36 J	684802.23	684802.40	684802.59	0.0142	0.0098
Jupiter	-2839-12-06 07:55 J	684817.60	684817.83	684818.07	0.0505	0.0010
Uranus	-2838-11-25 07:55 J	685171.63	685171.83	685172.05	0.0143	0.0076
Uranus	-2837-11-29 08:52 J	685541.63	685541.87	685542.11	0.0143	0.0025
Uranus	-2836-12-03 21:07 J	685911.13	685911.38	685911.64	0.0144	0.0002
Uranus	-2835-12-08 22:33 J	686281.22	686281.44	686281.68	0.0144	0.0044
Uranus	-2834-12-13 13:40 J	686650.87	686651.07	686651.28	0.0144	0.0084
Uranus	-2833-12-17 15:21 J	687021.00	687021.14	687021.30	0.0145	0.0113
Jupiter	-2827-12-11 01:12 J	689205.37	689205.55	689205.73	0.0504	0.0307
Saturn	-2826-12-30 03:21 J	689589.58	689589.64	689589.72	0.0285	0.0271
Saturn	-2810-06-28 05:16 J	695248.47	695248.72	695248.98	0.0274	0.0040
Uranus	-2800-05-17 20:38 J	698860.33	698860.36	698860.41	0.0137	0.0135
Uranus	-2799-05-22 05:16 J	699229.61	699229.72	699229.88	0.0136	0.0117
Uranus	-2798-05-27 02:52 J	699599.41	699599.62	699599.83	0.0136	0.0073

Uranus	-2797-05-30 11:16 J	699968.73	699968.97	699969.23	0.0135	0.0046
Saturn	-2797-12-23 09:36 J	700175.66	700175.90	700176.14	0.0288	0.0051
Uranus	-2796-06-04 06:00 J	700338.50	700338.75	700339.00	0.0135	0.0016
Uranus	-2795-06-08 14:09 J	700707.83	700708.09	700708.36	0.0135	0.0025
Uranus	-2794-06-13 06:28 J	701077.54	701077.77	701078.01	0.0134	0.0045
Uranus	-2793-06-16 14:09 J	701446.91	701447.09	701447.31	0.0134	0.0090
Uranus	-2792-06-21 04:33 J	701816.55	701816.69	701816.84	0.0134	0.0108
Jupiter	-2785-06-03 14:23 J	704355.91	704356.10	704356.30	0.0520	0.0275
Jupiter	-2773-06-08 13:55 J	708743.83	708744.08	708744.32	0.0521	0.0029
Neptune	-2773-06-29 08:38 J	708764.84	708764.86	708764.95	0.0089	0.0087
Neptune	-2772-07-02 05:02 J	709132.55	709132.71	709132.90	0.0089	0.0066
Neptune	-2771-07-04 12:28 J	709499.79	709500.02	709500.27	0.0089	0.0028
Neptune	-2770-07-07 05:31 J	709867.46	709867.73	709868.00	0.0089	0.0007
Neptune	-2769-07-08 15:50 J	710234.94	710235.16	710235.41	0.0089	0.0032
Neptune	-2768-07-11 03:50 J	710602.46	710602.66	710602.89	0.0089	0.0052
Jupiter	-2768-12-01 02:23 J	710745.42	710745.60	710745.80	0.0507	0.0300
Pluto	-2762-11-29 21:21 J	712935.32	712935.39	712935.50	0.0065	0.0062
Jupiter	-2761-06-13 06:57 J	713131.61	713131.79	713131.98	0.0522	0.0306
Pluto	-2761-11-30 13:12 J	713301.87	713302.05	713302.28	0.0066	0.0039
Uranus	-2756-11-16 05:31 J	715113.67	715113.73	715113.82	0.0142	0.0134
Jupiter	-2756-12-05 19:55 J	715133.11	715133.33	715133.55	0.0506	0.0043
Uranus	-2755-11-21 05:02 J	715483.56	715483.71	715483.89	0.0142	0.0105
Uranus	-2754-11-25 15:21 J	715852.93	715853.14	715853.39	0.0143	0.0058
Uranus	-2753-11-29 16:47 J	716222.96	716223.20	716223.44	0.0143	0.0036
Uranus	-2752-12-04 05:02 J	716592.45	716592.71	716592.96	0.0144	0.0014
Saturn	-2751-06-29 14:38 J	716799.87	716800.11	716800.36	0.0275	0.0052
Uranus	-2751-12-09 06:57 J	716962.56	716962.79	716963.03	0.0144	0.0045
Uranus	-2750-12-13 20:38 J	717332.16	717332.36	717332.58	0.0144	0.0082
Uranus	-2749-12-17 23:02 J	717702.37	717702.46	717702.59	0.0145	0.0129
Jupiter	-2744-12-10 00:43 J	719520.33	719520.53	719520.73	0.0504	0.0255

Saturn	-2738-12-25 23:02 J	721727.23	721727.46	721727.70	0.0287	0.0043
Saturn	-2722-06-24 14:23 J	727387.00	727387.10	727387.23	0.0273	0.0238
Uranus	-2715-05-22 15:36 J	729910.97	729911.15	729911.33	0.0136	0.0098
Uranus	-2714-05-27 13:26 J	730280.85	730281.06	730281.27	0.0136	0.0077
Uranus	-2713-05-30 21:36 J	730650.15	730650.40	730650.66	0.0135	0.0039
Mars	-2713-10-25 22:04 J	730798.25	730798.42	730798.60	0.1680	0.0634
Uranus	-2712-06-04 17:31 J	731019.98	731020.23	731020.48	0.0135	0.0006
Uranus	-2711-06-09 00:28 J	731389.27	731389.52	731389.79	0.0135	0.0020
Uranus	-2710-06-13 17:31 J	731759.03	731759.23	731759.47	0.0134	0.0064
Uranus	-2709-06-17 00:14 J	732128.31	732128.51	732128.74	0.0134	0.0080
Saturn	-2709-12-19 19:40 J	732314.25	732314.32	732314.42	0.0289	0.0269
Uranus	-2708-06-21 15:07 J	732498.04	732498.13	732498.24	0.0134	0.0122
Jupiter	-2702-06-03 05:45 J	734670.56	734670.74	734670.93	0.0518	0.0345
Saturn	-2692-07-01 06:00 J	738351.55	738351.75	738351.96	0.0275	0.0143
Neptune	-2692-12-26 09:21 J	738529.88	738529.89	738529.95	0.0089	0.0088
Neptune	-2691-12-29 00:57 J	738897.35	738897.54	738897.75	0.0089	0.0057
Jupiter	-2690-06-08 04:19 J	739058.45	739058.68	739058.91	0.0520	0.0049
Neptune	-2690-12-31 08:23 J	739264.63	739264.85	739265.10	0.0089	0.0031
Neptune	-2688-01-01 19:55 J	739632.06	739632.33	739632.59	0.0089	0.0001
Neptune	-2687-01-04 07:55 J	739999.60	739999.83	740000.07	0.0089	0.0027
Neptune	-2686-01-06 13:40 J	740366.89	740367.07	740367.29	0.0088	0.0057
Neptune	-2685-01-09 06:00 J	740734.68	740734.75	740734.85	0.0088	0.0083
Jupiter	-2685-11-30 10:04 J	741060.78	741060.92	741061.08	0.0508	0.0366
Saturn	-2679-12-27 19:55 J	743279.14	743279.33	743279.55	0.0286	0.0144
Jupiter	-2678-06-13 11:31 J	743446.77	743446.98	743447.20	0.0522	0.0241
Jupiter	-2673-12-04 16:33 J	745447.96	745448.19	745448.43	0.0506	0.0105
Uranus	-2672-11-16 15:21 J	745795.08	745795.14	745795.26	0.0142	0.0132
Uranus	-2671-11-21 14:38 J	746164.94	746165.11	746165.32	0.0142	0.0091
Uranus	-2670-11-26 00:57 J	746534.33	746534.54	746534.77	0.0143	0.0067
Uranus	-2669-11-30 01:55 J	746904.33	746904.58	746904.83	0.0143	0.0017

Uranus	-2668-12-04 13:26 J	747273.81	747274.06	747274.31	0.0144	0.0006
Uranus	-2667-12-09 15:36 J	747643.92	747644.15	747644.38	0.0144	0.0052
Uranus	-2666-12-14 04:47 J	748013.52	748013.70	748013.91	0.0144	0.0090
Uranus	-2665-12-18 08:23 J	748383.72	748383.85	748383.99	0.0145	0.0120
Saturn	-2663-06-26 04:04 J	748938.47	748938.67	748938.89	0.0273	0.0150
Jupiter	-2661-12-09 02:23 J	749835.39	749835.60	749835.80	0.0505	0.0198
Saturn	-2650-12-22 09:07 J	753865.68	753865.88	753866.09	0.0288	0.0168
Mars	-2634-10-29 10:47 J	759655.76	759655.95	759656.14	0.1676	0.0483
Saturn	-2633-07-03 00:14 J	759903.39	759903.51	759903.64	0.0276	0.0236
Uranus	-2632-05-18 16:04 J	760223.08	760223.17	760223.27	0.0137	0.0126
Uranus	-2631-05-23 00:28 J	760592.38	760592.52	760592.69	0.0136	0.0108
Uranus	-2630-05-27 22:47 J	760962.24	760962.45	760962.69	0.0136	0.0064
Uranus	-2629-05-31 06:28 J	761331.53	761331.77	761332.03	0.0135	0.0039
Uranus	-2628-06-05 02:38 J	761701.36	761701.61	761701.87	0.0135	0.0006
Uranus	-2627-06-09 09:07 J	762070.63	762070.88	762071.14	0.0135	0.0033
Uranus	-2626-06-14 03:21 J	762440.42	762440.64	762440.88	0.0134	0.0054
Uranus	-2625-06-17 09:21 J	762809.72	762809.89	762810.08	0.0134	0.0097
Uranus	-2624-06-22 01:12 J	763179.45	763179.55	763179.70	0.0134	0.0115
Saturn	-2620-12-29 16:33 J	764831.07	764831.19	764831.32	0.0286	0.0244
Jupiter	-2619-06-02 02:38 J	764985.47	764985.61	764985.75	0.0519	0.0412
Neptune	-2608-07-01 06:00 J	769032.66	769032.75	769032.90	0.0089	0.0078
Jupiter	-2607-06-07 08:23 J	769373.61	769373.85	769374.09	0.0520	0.0113
Neptune	-2607-07-03 22:04 J	769400.20	769400.42	769400.66	0.0089	0.0046
Neptune	-2606-07-06 11:16 J	769767.72	769767.97	769768.21	0.0089	0.0019
Neptune	-2605-07-07 22:19 J	770135.17	770135.43	770135.71	0.0089	0.0012
Saturn	-2604-06-27 13:26 J	770489.81	770490.06	770490.32	0.0274	0.0059
Neptune	-2604-07-10 14:52 J	770502.91	770503.12	770503.37	0.0089	0.0040
Neptune	-2603-07-12 22:04 J	770870.27	770870.42	770870.59	0.0089	0.0070
Jupiter	-2602-11-30 05:45 J	771375.63	771375.74	771375.88	0.0508	0.0430
Jupiter	-2595-06-12 02:52 J	773761.40	773761.62	773761.84	0.0521	0.0174

Saturn	-2591-12-23 23:16 J	775417.23	775417.47	775417.71	0.0288	0.0067
Jupiter	-2590-12-04 18:14 J	775763.05	775763.26	775763.47	0.0507	0.0167
Uranus	-2588-11-17 01:55 J	776476.48	776476.58	776476.69	0.0142	0.0126
Uranus	-2587-11-22 00:00 J	776846.33	776846.50	776846.70	0.0142	0.0096
Uranus	-2586-11-26 10:47 J	777215.73	777215.95	777216.19	0.0143	0.0050
Uranus	-2585-11-30 11:31 J	777585.74	777585.98	777586.24	0.0143	0.0028
Uranus	-2584-12-04 23:31 J	777955.23	777955.48	777955.73	0.0144	0.0023
Uranus	-2583-12-10 01:55 J	778325.35	778325.58	778325.82	0.0144	0.0051
Uranus	-2582-12-14 14:52 J	778694.93	778695.12	778695.32	0.0144	0.0091
Uranus	-2581-12-18 18:28 J	779065.19	779065.27	779065.37	0.0145	0.0135
Jupiter	-2578-12-09 05:31 J	780150.51	780150.73	780150.96	0.0505	0.0146
Jupiter	-2566-12-13 10:33 J	784537.84	784537.94	784538.04	0.0504	0.0446
Mars	-2561-04-27 01:40 J	786134.37	786134.57	786134.77	0.1847	0.0231
Uranus	-2548-05-19 01:40 J	790904.55	790904.57	790904.62	0.0137	0.0135
Uranus	-2547-05-23 10:33 J	791273.75	791273.94	791274.14	0.0136	0.0088
Uranus	-2546-05-28 09:07 J	791643.67	791643.88	791644.11	0.0136	0.0069
Uranus	-2545-05-31 16:33 J	792012.94	792013.19	792013.45	0.0136	0.0029
Saturn	-2545-06-28 22:33 J	792041.19	792041.44	792041.69	0.0274	0.0028
Uranus	-2544-06-05 13:26 J	792382.81	792383.06	792383.32	0.0135	0.0003
Uranus	-2543-06-09 19:12 J	792752.05	792752.30	792752.57	0.0135	0.0029
Uranus	-2542-06-14 13:55 J	793121.88	793122.08	793122.31	0.0134	0.0072
Uranus	-2541-06-17 18:43 J	793491.11	793491.28	793491.50	0.0134	0.0089
Uranus	-2540-06-22 11:45 J	793860.95	793860.99	793861.06	0.0134	0.0130
Jupiter	-2536-06-01 06:14 J	795300.66	795300.76	795300.87	0.0518	0.0464
Saturn	-2532-12-25 14:52 J	796968.89	796969.12	796969.36	0.0287	0.0031
Neptune	-2527-12-28 08:38 J	798797.70	798797.86	798798.02	0.0089	0.0068
Neptune	-2526-12-30 17:45 J	799165.04	799165.24	799165.48	0.0089	0.0049
Neptune	-2524-01-01 07:26 J	799532.57	799532.81	799533.06	0.0089	0.0012
Jupiter	-2524-06-05 22:47 J	799688.23	799688.45	799688.67	0.0519	0.0184
Neptune	-2523-01-03 12:57 J	799899.79	799900.04	799900.30	0.0089	0.0008

Neptune	-2522-01-06 05:16 J	800267.52	800267.72	800267.96	0.0089	0.0046
Neptune	-2521-01-08 08:52 J	800634.72	800634.87	800635.07	0.0088	0.0065
Jupiter	-2519-11-29 09:36 J	801690.86	801690.90	801690.96	0.0509	0.0493
Saturn	-2516-06-24 03:50 J	802628.57	802628.66	802628.76	0.0273	0.0250
Pluto	-2516-11-30 20:23 J	802788.25	802788.35	802788.51	0.0065	0.0057
Pluto	-2515-12-02 12:57 J	803154.87	803155.04	803155.25	0.0066	0.0046
Jupiter	-2512-06-11 06:00 J	804076.52	804076.75	804076.98	0.0521	0.0103
Mars	-2508-10-25 05:02 J	805673.67	805673.71	805673.75	0.1689	0.1641
Jupiter	-2507-12-03 21:50 J	806078.20	806078.41	806078.63	0.0507	0.0222
Uranus	-2504-11-17 14:23 J	807158.00	807158.10	807158.25	0.0142	0.0121
Uranus	-2503-11-22 12:43 J	807527.83	807528.03	807528.24	0.0142	0.0081
Saturn	-2503-12-20 10:33 J	807555.88	807555.94	807556.02	0.0289	0.0276
Uranus	-2502-11-26 23:45 J	807897.27	807897.49	807897.72	0.0143	0.0057
Uranus	-2501-12-01 00:00 J	808267.25	808267.50	808267.75	0.0143	0.0007
Jupiter	-2500-06-16 00:14 J	808464.40	808464.51	808464.63	0.0523	0.0455
Uranus	-2500-12-05 11:45 J	808636.75	808636.99	808637.24	0.0144	0.0015
Uranus	-2499-12-10 13:40 J	809006.86	809007.07	809007.31	0.0144	0.0062
Uranus	-2498-12-15 02:52 J	809376.45	809376.62	809376.81	0.0144	0.0098
Uranus	-2497-12-19 07:26 J	809746.70	809746.81	809746.92	0.0145	0.0129
Jupiter	-2495-12-08 05:31 J	810465.51	810465.73	810465.95	0.0505	0.0098
Saturn	-2486-07-01 09:36 J	813592.68	813592.90	813593.12	0.0274	0.0110
Jupiter	-2483-12-12 20:23 J	814853.21	814853.35	814853.50	0.0504	0.0394
Saturn	-2473-12-27 06:14 J	818520.55	818520.76	818520.98	0.0287	0.0120
Uranus	-2464-05-19 13:12 J	821585.93	821586.05	821586.21	0.0137	0.0116
Uranus	-2463-05-23 22:04 J	821955.26	821955.42	821955.62	0.0136	0.0098
Uranus	-2462-05-28 20:52 J	822325.13	822325.37	822325.61	0.0136	0.0052
Uranus	-2461-06-01 03:36 J	822694.41	822694.65	822694.92	0.0136	0.0030
Uranus	-2460-06-06 00:28 J	823064.26	823064.52	823064.78	0.0135	0.0005
Uranus	-2459-06-10 05:45 J	823433.51	823433.74	823434.00	0.0135	0.0042
Uranus	-2458-06-15 01:26 J	823803.33	823803.56	823803.78	0.0134	0.0063

Uranus	-2457-06-18 05:45 J	824172.59	824172.74	824172.91	0.0134	0.0106
Saturn	-2457-06-25 06:43 J	824179.59	824179.78	824179.99	0.0273	0.0172
Uranus	-2456-06-22 23:31 J	824542.39	824542.48	824542.59	0.0134	0.0122
Neptune	-2444-06-30 15:07 J	828933.11	828933.13	828933.18	0.0089	0.0088
Saturn	-2444-12-21 15:21 J	829106.97	829107.14	829107.34	0.0289	0.0193
Neptune	-2443-07-03 04:47 J	829300.55	829300.70	829300.88	0.0089	0.0068
Neptune	-2442-07-05 14:09 J	829667.86	829668.09	829668.36	0.0089	0.0031
Jupiter	-2441-06-05 04:47 J	830003.50	830003.70	830003.91	0.0519	0.0257
Neptune	-2441-07-07 08:23 J	830035.61	830035.85	830036.11	0.0089	0.0010
Neptune	-2440-07-09 14:52 J	830402.89	830403.12	830403.38	0.0089	0.0029
Neptune	-2439-07-12 10:47 J	830770.76	830770.95	830771.19	0.0089	0.0049
Neptune	-2438-07-14 16:47 J	831138.17	831138.20	831138.28	0.0089	0.0087
Jupiter	-2429-06-10 01:26 J	834391.32	834391.56	834391.80	0.0521	0.0043
Mars	-2429-10-27 03:07 J	834530.45	834530.63	834530.80	0.1685	0.0149
Saturn	-2427-07-02 18:57 J	835144.12	835144.29	835144.48	0.0274	0.0187
Jupiter	-2424-12-03 00:00 J	836393.31	836393.50	836393.69	0.0507	0.0265
Uranus	-2420-11-18 02:09 J	837839.46	837839.59	837839.74	0.0142	0.0116
Uranus	-2419-11-22 23:02 J	838209.26	838209.46	838209.68	0.0142	0.0084
Uranus	-2418-11-27 11:16 J	838578.74	838578.97	838579.21	0.0143	0.0039
Jupiter	-2417-06-15 08:52 J	838779.73	838779.87	838780.01	0.0522	0.0412
Uranus	-2417-12-01 11:02 J	838948.71	838948.96	838949.22	0.0143	0.0017
Uranus	-2416-12-05 23:31 J	839318.25	839318.48	839318.73	0.0144	0.0034
Uranus	-2415-12-11 01:55 J	839688.36	839688.58	839688.81	0.0144	0.0061
Uranus	-2414-12-15 15:21 J	840057.97	840058.14	840058.32	0.0144	0.0102
Saturn	-2414-12-29 14:38 J	840071.93	840072.11	840072.29	0.0287	0.0197
Uranus	-2413-12-19 19:26 J	840428.31	840428.31	840428.33	0.0145	0.0144
Jupiter	-2412-12-07 16:47 J	840780.97	840781.20	840781.43	0.0506	0.0060
Jupiter	-2400-12-11 18:57 J	845168.13	845168.29	845168.46	0.0505	0.0346
Saturn	-2398-06-27 05:16 J	845730.50	845730.72	845730.97	0.0273	0.0101
Saturn	-2385-12-22 20:09 J	850658.13	850658.34	850658.56	0.0289	0.0119

Uranus	-2380-05-20 02:38 J	852267.49	852267.61	852267.73	0.0137	0.0122
Uranus	-2379-05-24 11:31 J	852636.78	852636.98	852637.20	0.0136	0.0076
Uranus	-2378-05-29 09:50 J	853006.67	853006.91	853007.15	0.0136	0.0057
Uranus	-2377-06-01 16:47 J	853375.94	853376.20	853376.46	0.0136	0.0017
Uranus	-2376-06-06 13:40 J	853745.81	853746.07	853746.33	0.0135	0.0012
Uranus	-2375-06-10 19:12 J	854115.05	854115.30	854115.55	0.0135	0.0040
Uranus	-2374-06-15 14:09 J	854484.90	854485.09	854485.31	0.0134	0.0082
Uranus	-2373-06-18 18:14 J	854854.11	854854.26	854854.46	0.0134	0.0098
Saturn	-2368-07-03 20:09 J	856695.25	856695.34	856695.43	0.0274	0.0255
Neptune	-2363-12-27 15:50 J	858698.15	858698.16	858698.23	0.0089	0.0088
Neptune	-2362-12-30 06:14 J	859065.60	859065.76	859065.96	0.0089	0.0061
Neptune	-2361-12-31 11:02 J	859432.74	859432.96	859433.22	0.0089	0.0032
Neptune	-2359-01-03 04:19 J	859800.43	859800.68	859800.93	0.0089	0.0003
Neptune	-2358-01-05 07:26 J	860167.58	860167.81	860168.07	0.0089	0.0026
Jupiter	-2358-06-05 05:02 J	860318.52	860318.71	860318.91	0.0519	0.0303
Neptune	-2357-01-08 00:00 J	860535.31	860535.50	860535.72	0.0088	0.0054
Neptune	-2356-01-09 05:02 J	860902.64	860902.71	860902.84	0.0088	0.0081
Saturn	-2355-12-30 12:28 J	861622.94	861623.02	861623.14	0.0287	0.0261
Mars	-2350-10-30 04:04 J	863387.50	863387.67	863387.83	0.1681	0.0806
Jupiter	-2346-06-10 11:31 J	864706.75	864706.98	864707.21	0.0520	0.0003
Jupiter	-2341-12-02 13:26 J	866708.88	866709.06	866709.25	0.0508	0.0301
Saturn	-2339-06-28 06:57 J	867281.55	867281.79	867282.03	0.0273	0.0037
Uranus	-2336-11-18 15:07 J	868520.99	868521.13	868521.30	0.0142	0.0108
Uranus	-2335-11-23 11:16 J	868890.76	868890.97	868891.20	0.0142	0.0071
Jupiter	-2334-06-15 10:33 J	869094.76	869094.94	869095.12	0.0522	0.0358
Uranus	-2334-11-28 00:00 J	869260.28	869260.50	869260.74	0.0143	0.0046
Uranus	-2333-12-01 23:16 J	869630.21	869630.47	869630.72	0.0143	0.0004
Uranus	-2332-12-06 12:14 J	869999.77	870000.01	870000.25	0.0144	0.0026
Uranus	-2331-12-11 13:40 J	870369.87	870370.07	870370.30	0.0144	0.0074
Uranus	-2330-12-16 03:21 J	870739.50	870739.64	870739.83	0.0144	0.0109

Jupiter	-2329-12-06 18:43 J	871096.05	871096.28	871096.51	0.0506	0.0021
Uranus	-2329-12-20 08:09 J	871109.79	871109.84	871109.91	0.0145	0.0140
Saturn	-2326-12-25 00:57 J	872209.31	872209.54	872209.77	0.0289	0.0056
Jupiter	-2317-12-11 13:55 J	875483.91	875484.08	875484.26	0.0504	0.0312
Uranus	-2296-05-20 16:19 J	882949.02	882949.18	882949.37	0.0137	0.0103
Uranus	-2295-05-25 01:55 J	883318.39	883318.58	883318.79	0.0136	0.0084
Uranus	-2294-05-29 23:16 J	883688.23	883688.47	883688.74	0.0136	0.0040
Uranus	-2293-06-02 06:43 J	884057.53	884057.78	884058.03	0.0135	0.0017
Uranus	-2292-06-07 02:52 J	884427.37	884427.62	884427.88	0.0135	0.0018
Uranus	-2291-06-11 08:09 J	884796.61	884796.84	884797.09	0.0135	0.0053
Uranus	-2290-06-16 03:21 J	885166.44	885166.64	885166.87	0.0134	0.0075
Uranus	-2289-06-19 07:40 J	885535.70	885535.82	885535.95	0.0134	0.0117
Uranus	-2288-06-24 02:09 J	885905.55	885905.59	885905.62	0.0134	0.0132
Saturn	-2280-06-29 09:07 J	888832.64	888832.88	888833.13	0.0273	0.0024
Neptune	-2279-07-02 06:14 J	889200.68	889200.76	889200.89	0.0089	0.0082
Neptune	-2278-07-05 01:40 J	889568.36	889568.57	889568.79	0.0089	0.0048
Mars	-2277-04-27 05:02 J	889865.52	889865.71	889865.90	0.1839	0.0229
Neptune	-2277-07-06 07:40 J	889935.58	889935.82	889936.08	0.0089	0.0024
Neptune	-2276-07-09 03:50 J	890303.41	890303.66	890303.93	0.0089	0.0009
Jupiter	-2275-06-04 16:19 J	890634.02	890634.18	890634.35	0.0518	0.0354
Neptune	-2275-07-11 10:33 J	890670.71	890670.94	890671.18	0.0089	0.0034
Neptune	-2274-07-14 04:04 J	891038.51	891038.67	891038.87	0.0089	0.0066
Pluto	-2270-12-03 01:12 J	892641.46	892641.55	892641.71	0.0065	0.0057
Pluto	-2269-12-03 07:26 J	893007.66	893007.81	893008.01	0.0066	0.0048
Saturn	-2267-12-26 00:57 J	893760.30	893760.54	893760.78	0.0289	0.0001
Jupiter	-2263-06-09 11:02 J	895021.71	895021.96	895022.20	0.0520	0.0058
Jupiter	-2258-12-02 20:38 J	897024.19	897024.36	897024.55	0.0508	0.0322
Uranus	-2253-11-14 11:02 J	898832.89	898832.96	898833.06	0.0141	0.0133
Uranus	-2252-11-19 00:43 J	899202.38	899202.53	899202.70	0.0142	0.0106
Jupiter	-2251-06-14 14:09 J	899409.92	899410.09	899410.28	0.0522	0.0317

Saturn	-2251-06-23 19:55 J	899419.28	899419.33	899419.39	0.0270	0.0263
Uranus	-2251-11-23 19:40 J	899572.10	899572.32	899572.55	0.0142	0.0072
Uranus	-2250-11-28 09:50 J	899941.67	899941.91	899942.15	0.0143	0.0029
Uranus	-2249-12-02 07:55 J	900311.58	900311.83	900312.09	0.0143	0.0007
Uranus	-2248-12-06 22:04 J	900681.19	900681.42	900681.66	0.0144	0.0044
Uranus	-2247-12-11 23:31 J	901051.26	901051.48	901051.71	0.0144	0.0070
Jupiter	-2246-12-07 13:55 J	901411.86	901412.08	901412.31	0.0506	0.0011
Uranus	-2246-12-16 14:09 J	901420.94	901421.09	901421.25	0.0144	0.0113
Jupiter	-2234-12-11 19:26 J	905799.11	905799.31	905799.51	0.0505	0.0272
Mars	-2224-10-26 02:52 J	909405.49	909405.62	909405.76	0.1694	0.1253
Jupiter	-2222-12-16 06:57 J	910186.79	910186.79	910186.79	0.0503	0.0503
Saturn	-2221-06-30 07:26 J	910383.58	910383.81	910384.06	0.0273	0.0080
Uranus	-2213-05-16 08:23 J	913260.79	913260.85	913260.91	0.0137	0.0133
Uranus	-2212-05-21 05:45 J	913630.58	913630.74	913630.89	0.0137	0.0109
Uranus	-2211-05-25 15:21 J	913999.93	914000.14	914000.38	0.0136	0.0064
Uranus	-2210-05-30 12:43 J	914369.78	914370.03	914370.28	0.0136	0.0045
Uranus	-2209-06-02 20:09 J	914739.09	914739.34	914739.60	0.0136	0.0004
Uranus	-2208-06-07 16:19 J	915108.93	915109.18	915109.45	0.0135	0.0024
Saturn	-2208-12-26 17:02 J	915310.97	915311.21	915311.47	0.0289	0.0051
Uranus	-2207-06-11 22:33 J	915478.20	915478.44	915478.67	0.0135	0.0052
Uranus	-2206-06-16 17:16 J	915848.05	915848.22	915848.43	0.0134	0.0093
Uranus	-2205-06-19 21:21 J	916217.27	916217.39	916217.56	0.0134	0.0109
Neptune	-2198-12-29 08:23 J	918965.72	918965.85	918966.03	0.0089	0.0071
Neptune	-2197-12-31 01:55 J	919333.39	919333.58	919333.80	0.0089	0.0052
Neptune	-2195-01-02 05:45 J	919700.50	919700.74	919701.00	0.0089	0.0015
Neptune	-2194-01-04 22:04 J	920068.16	920068.42	920068.68	0.0089	0.0004
Neptune	-2193-01-07 04:33 J	920435.47	920435.69	920435.91	0.0088	0.0041
Neptune	-2192-01-08 16:33 J	920803.00	920803.19	920803.39	0.0088	0.0060
Jupiter	-2192-06-03 17:45 J	920949.09	920949.24	920949.40	0.0519	0.0400
Saturn	-2192-06-24 16:19 J	920970.02	920970.18	920970.34	0.0270	0.0205

Pluto	-2182-06-05 05:16 J	924602.72	924602.72	924602.72	0.0079	0.0079
Jupiter	-2180-06-08 22:04 J	925337.19	925337.42	925337.65	0.0520	0.0079
Jupiter	-2175-12-02 14:09 J	927339.93	927340.09	927340.26	0.0508	0.0346
Uranus	-2169-11-14 21:21 J	929514.36	929514.39	929514.47	0.0141	0.0138
Jupiter	-2168-06-14 05:31 J	929725.54	929725.73	929725.93	0.0522	0.0293
Uranus	-2168-11-19 12:28 J	929883.86	929884.02	929884.21	0.0142	0.0098
Uranus	-2167-11-24 06:14 J	930253.54	930253.76	930254.00	0.0142	0.0063
Uranus	-2166-11-28 21:21 J	930623.16	930623.39	930623.63	0.0143	0.0035
Uranus	-2165-12-02 18:14 J	930993.00	930993.26	930993.52	0.0143	0.0013
Uranus	-2164-12-07 09:07 J	931362.65	931362.88	931363.12	0.0144	0.0035
Jupiter	-2163-12-06 19:55 J	931727.09	931727.33	931727.57	0.0507	0.0036
Uranus	-2163-12-12 09:07 J	931732.68	931732.88	931733.10	0.0144	0.0084
Saturn	-2162-07-02 01:12 J	931934.33	931934.55	931934.78	0.0273	0.0137
Uranus	-2162-12-17 00:00 J	932102.38	932102.50	932102.67	0.0144	0.0117
Jupiter	-2151-12-11 10:04 J	936114.73	936114.92	936115.12	0.0505	0.0233
Saturn	-2149-12-27 07:26 J	936861.59	936861.81	936862.05	0.0289	0.0097
Mars	-2145-10-28 13:26 J	938262.89	938263.06	938263.24	0.1689	0.0477
Jupiter	-2139-12-16 01:26 J	940502.48	940502.56	940502.64	0.0503	0.0471
Saturn	-2133-06-25 18:57 J	942521.10	942521.29	942521.50	0.0271	0.0145
Uranus	-2129-05-16 19:40 J	943942.29	943942.32	943942.39	0.0137	0.0135
Uranus	-2128-05-21 16:47 J	944312.02	944312.20	944312.41	0.0137	0.0092
Uranus	-2127-05-26 03:50 J	944681.47	944681.66	944681.89	0.0136	0.0074
Uranus	-2126-05-31 00:28 J	945051.26	945051.52	945051.78	0.0136	0.0028
Uranus	-2125-06-03 08:52 J	945420.62	945420.87	945421.12	0.0136	0.0007
Uranus	-2124-06-08 04:19 J	945790.43	945790.68	945790.95	0.0135	0.0029
Uranus	-2123-06-12 10:47 J	946159.72	946159.95	946160.17	0.0135	0.0063
Uranus	-2122-06-17 05:16 J	946529.54	946529.72	946529.94	0.0134	0.0086
Uranus	-2121-06-20 10:19 J	946898.86	946898.93	946899.01	0.0134	0.0128
Saturn	-2120-12-21 11:16 J	947447.87	947447.97	947448.08	0.0291	0.0260
Neptune	-2114-07-03 22:33 J	949468.30	949468.44	949468.61	0.0089	0.0071

Neptune	-2113-07-05 18:14 J	949836.03	949836.26	949836.52	0.0089	0.0035
Neptune	-2112-07-08 01:55 J	950203.33	950203.58	950203.83	0.0089	0.0014
Neptune	-2111-07-10 18:28 J	950571.02	950571.27	950571.54	0.0089	0.0023
Neptune	-2110-07-13 06:00 J	950938.54	950938.75	950938.98	0.0089	0.0044
Jupiter	-2109-06-03 05:02 J	951264.60	951264.71	951264.84	0.0518	0.0435
Neptune	-2109-07-14 18:00 J	951306.16	951306.25	951306.38	0.0089	0.0080
Saturn	-2103-07-02 20:52 J	953485.20	953485.37	953485.54	0.0273	0.0197
Jupiter	-2097-06-08 09:36 J	955652.66	955652.90	955653.14	0.0520	0.0109
Jupiter	-2092-12-01 21:50 J	957655.25	957655.41	957655.58	0.0508	0.0372
Saturn	-2090-12-29 03:50 J	958412.47	958412.66	958412.87	0.0288	0.0149
Jupiter	-2085-06-12 23:02 J	960040.26	960040.46	960040.68	0.0521	0.0238
Uranus	-2085-11-15 06:57 J	960195.67	960195.79	960195.93	0.0141	0.0123
Uranus	-2084-11-19 23:02 J	960565.29	960565.46	960565.64	0.0142	0.0098
Uranus	-2083-11-24 15:07 J	960934.91	960935.13	960935.37	0.0142	0.0061
Uranus	-2082-11-29 07:40 J	961304.58	961304.82	961305.06	0.0143	0.0021
Uranus	-2081-12-03 03:36 J	961674.39	961674.65	961674.91	0.0143	0.0003
Jupiter	-2080-12-06 12:43 J	962042.81	962043.03	962043.25	0.0507	0.0054
Uranus	-2080-12-07 19:40 J	962044.11	962044.32	962044.55	0.0143	0.0054
Uranus	-2079-12-12 19:12 J	962414.09	962414.30	962414.52	0.0144	0.0078
Uranus	-2078-12-17 11:02 J	962783.85	962783.96	962784.10	0.0144	0.0122
Saturn	-2074-06-27 23:02 J	964072.22	964072.46	964072.69	0.0271	0.0081
Jupiter	-2068-12-11 01:55 J	966430.36	966430.58	966430.80	0.0505	0.0195
Mars	-2066-10-31 14:23 J	967120.01	967120.10	967120.19	0.1686	0.1428
Saturn	-2061-12-22 06:43 J	968998.60	968998.78	968998.95	0.0291	0.0206
Jupiter	-2056-12-15 05:31 J	970817.62	970817.73	970817.85	0.0504	0.0434
Uranus	-2045-05-17 07:40 J	974623.73	974623.82	974623.94	0.0137	0.0124
Uranus	-2044-05-22 03:07 J	974993.46	974993.63	974993.83	0.0137	0.0099
Saturn	-2044-07-04 00:57 J	975036.48	975036.54	975036.62	0.0273	0.0260
Uranus	-2043-05-26 15:21 J	975362.92	975363.14	975363.38	0.0136	0.0055
Uranus	-2042-05-31 11:02 J	975732.71	975732.96	975733.22	0.0136	0.0036

Uranus	-2041-06-03 20:38 J	976102.11	976102.36	976102.61	0.0136	0.0006
Uranus	-2040-06-08 16:04 J	976471.92	976472.17	976472.43	0.0135	0.0033
Uranus	-2039-06-12 23:16 J	976841.26	976841.47	976841.70	0.0135	0.0063
Uranus	-2038-06-17 17:45 J	977211.08	977211.24	977211.43	0.0134	0.0102
Uranus	-2037-06-20 23:16 J	977580.36	977580.47	977580.59	0.0134	0.0119
Neptune	-2033-12-30 03:07 J	979233.48	979233.63	979233.82	0.0089	0.0065
Neptune	-2031-01-01 18:57 J	979601.05	979601.29	979601.53	0.0089	0.0035
Saturn	-2031-12-30 05:31 J	979963.58	979963.73	979963.91	0.0288	0.0204
Neptune	-2030-01-04 02:09 J	979968.35	979968.59	979968.84	0.0088	0.0008
Neptune	-2029-01-06 12:43 J	980335.78	980336.03	980336.29	0.0088	0.0022
Neptune	-2028-01-08 00:43 J	980703.34	980703.53	980703.75	0.0088	0.0048
Neptune	-2027-01-10 06:57 J	981070.68	981070.79	981070.94	0.0088	0.0077
Jupiter	-2026-06-03 08:23 J	981579.77	981579.85	981579.93	0.0517	0.0490
Pluto	-2024-12-03 21:50 J	982494.37	982494.41	982494.49	0.0065	0.0064
Pluto	-2023-12-05 08:09 J	982860.67	982860.84	982861.06	0.0066	0.0041
Saturn	-2015-06-28 22:47 J	985623.19	985623.45	985623.70	0.0271	0.0017
Jupiter	-2014-06-08 03:50 J	985967.44	985967.66	985967.89	0.0519	0.0161
Jupiter	-2009-12-01 10:19 J	987970.80	987970.93	987971.07	0.0509	0.0392
Jupiter	-2002-06-13 15:50 J	990355.95	990356.16	990356.37	0.0521	0.0209
Saturn	-2002-12-24 01:40 J	990549.36	990549.57	990549.79	0.0291	0.0147
Uranus	-2001-11-15 20:23 J	990877.25	990877.35	990877.46	0.0141	0.0128

2ND MILLENNIUM BCE

This is a list of transits of Moon in the 2nd millennium BCE.

FROM	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Uranus	-2000-11-20 13:12 J	991246.88	991247.05	991247.26	0.0142	0.0087
Uranus	-1999-11-25 04:47 J	991616.47	991616.70	991616.95	0.0142	0.0054
Uranus	-1998-11-29 22:19 J	991986.19	991986.43	991986.67	0.0143	0.0024
Uranus	-1997-12-03 16:47 J	992355.95	992356.20	992356.46	0.0143	0.0022
Jupiter	-1997-12-06 00:14 J	992358.28	992358.51	992358.74	0.0507	0.0089
Uranus	-1996-12-08 09:50 J	992725.68	992725.91	992726.14	0.0143	0.0045
Uranus	-1995-12-13 07:40 J	993095.64	993095.82	993096.03	0.0144	0.0094
Uranus	-1994-12-18 00:14 J	993465.40	993465.51	993465.65	0.0144	0.0124
Mars	-1993-04-26 13:12 J	993595.83	993596.05	993596.27	0.1831	0.0188
Jupiter	-1990-06-18 12:14 J	994743.97	994744.01	994744.06	0.0523	0.0512
Jupiter	-1985-12-10 03:36 J	996745.43	996745.65	996745.86	0.0506	0.0150
Jupiter	-1973-12-14 22:33 J	1001133.31	1001133.44	1001133.59	0.0504	0.0397
Saturn	-1972-12-31 08:09 J	1001514.75	1001514.84	1001514.93	0.0288	0.0265
Uranus	-1961-05-17 20:09 J	1005305.24	1005305.34	1005305.46	0.0137	0.0123
Uranus	-1960-05-22 14:52 J	1005674.92	1005675.12	1005675.35	0.0137	0.0082
Uranus	-1959-05-27 04:19 J	1006044.47	1006044.68	1006044.92	0.0136	0.0063
Uranus	-1958-05-31 23:02 J	1006414.20	1006414.46	1006414.73	0.0136	0.0018
Uranus	-1957-06-04 09:36 J	1006783.65	1006783.90	1006784.15	0.0136	0.0003
Uranus	-1956-06-09 03:50 J	1007153.42	1007153.66	1007153.92	0.0135	0.0041
Saturn	-1956-06-30 00:28 J	1007174.28	1007174.52	1007174.77	0.0271	0.0054
Uranus	-1955-06-13 11:31 J	1007522.78	1007522.98	1007523.21	0.0135	0.0073
Uranus	-1954-06-18 05:45 J	1007892.56	1007892.74	1007892.93	0.0134	0.0096
Neptune	-1950-07-03 08:38 J	1009368.83	1009368.86	1009368.94	0.0089	0.0087
Neptune	-1949-07-04 17:16 J	1009736.04	1009736.22	1009736.45	0.0089	0.0053
Neptune	-1948-07-07 08:52 J	1010103.63	1010103.87	1010104.14	0.0089	0.0030
Neptune	-1947-07-09 21:36 J	1010471.15	1010471.40	1010471.66	0.0089	0.0005
Neptune	-1946-07-12 07:40 J	1010838.58	1010838.82	1010839.09	0.0089	0.0027
Neptune	-1945-07-14 00:57 J	1011206.37	1011206.54	1011206.74	0.0089	0.0061

Neptune	-1944-07-16 07:55 J	1011573.76	1011573.83	1011573.93	0.0089	0.0084
Saturn	-1943-12-25 06:00 J	1012100.52	1012100.75	1012100.98	0.0290	0.0075
Mars	-1940-10-26 18:57 J	1013137.14	1013137.29	1013137.45	0.1699	0.0916
Jupiter	-1931-06-07 18:14 J	1016283.04	1016283.26	1016283.48	0.0519	0.0195
Saturn	-1927-06-25 00:00 J	1017761.37	1017761.50	1017761.64	0.0270	0.0227
Jupiter	-1926-12-01 18:14 J	1018286.14	1018286.26	1018286.39	0.0509	0.0425
Jupiter	-1919-06-12 11:16 J	1020670.74	1020670.97	1020671.21	0.0520	0.0154
Uranus	-1917-11-16 08:09 J	1021558.69	1021558.84	1021559.01	0.0141	0.0110
Uranus	-1916-11-21 02:23 J	1021928.42	1021928.60	1021928.80	0.0142	0.0087
Uranus	-1915-11-25 16:33 J	1022297.96	1022298.19	1022298.45	0.0142	0.0049
Uranus	-1914-11-30 11:16 J	1022667.74	1022667.97	1022668.22	0.0142	0.0011
Jupiter	-1914-12-06 00:43 J	1022673.31	1022673.53	1022673.75	0.0508	0.0133
Uranus	-1913-12-04 05:02 J	1023037.46	1023037.71	1023037.97	0.0143	0.0015
Uranus	-1912-12-08 23:31 J	1023407.27	1023407.48	1023407.69	0.0143	0.0065
Uranus	-1911-12-13 20:23 J	1023777.16	1023777.35	1023777.56	0.0144	0.0089
Uranus	-1910-12-18 14:09 J	1024147.01	1024147.09	1024147.19	0.0144	0.0133
Jupiter	-1907-06-17 12:14 J	1025058.89	1025059.01	1025059.13	0.0522	0.0439
Jupiter	-1902-12-10 20:23 J	1027061.12	1027061.35	1027061.57	0.0506	0.0112
Saturn	-1897-07-01 09:50 J	1028725.70	1028725.91	1028726.13	0.0272	0.0130
Jupiter	-1890-12-14 21:36 J	1031448.25	1031448.40	1031448.58	0.0504	0.0355
Saturn	-1884-12-26 19:26 J	1033652.07	1033652.31	1033652.54	0.0290	0.0012
Uranus	-1877-05-18 10:04 J	1035986.80	1035986.92	1035987.08	0.0137	0.0113
Uranus	-1876-05-23 03:36 J	1036356.46	1036356.65	1036356.87	0.0137	0.0086
Uranus	-1875-05-27 18:00 J	1036726.02	1036726.25	1036726.50	0.0136	0.0043
Uranus	-1874-06-01 11:45 J	1037095.74	1037095.99	1037096.26	0.0136	0.0024
Uranus	-1873-06-04 23:31 J	1037465.24	1037465.48	1037465.73	0.0136	0.0019
Uranus	-1872-06-09 17:16 J	1037834.98	1037835.22	1037835.48	0.0135	0.0044
Uranus	-1871-06-14 02:23 J	1038204.40	1038204.60	1038204.82	0.0135	0.0075
Uranus	-1870-06-18 19:55 J	1038574.19	1038574.33	1038574.48	0.0134	0.0112
Uranus	-1869-06-22 02:23 J	1038943.55	1038943.60	1038943.67	0.0134	0.0130

Neptune	-1869-12-29 14:23 J	1039133.98	1039134.10	1039134.26	0.0089	0.0075
Saturn	-1868-06-26 09:36 J	1039312.69	1039312.90	1039313.11	0.0271	0.0148
Neptune	-1868-12-31 23:02 J	1039501.29	1039501.46	1039501.67	0.0089	0.0056
Neptune	-1866-01-03 09:07 J	1039868.63	1039868.88	1039869.15	0.0089	0.0020
Neptune	-1865-01-05 22:33 J	1040236.20	1040236.44	1040236.69	0.0088	0.0001
Neptune	-1864-01-07 03:21 J	1040603.42	1040603.64	1040603.90	0.0088	0.0036
Neptune	-1863-01-09 19:55 J	1040971.16	1040971.33	1040971.56	0.0088	0.0055
Mars	-1861-10-29 05:31 J	1041994.57	1041994.73	1041994.90	0.1695	0.0884
Jupiter	-1848-06-06 05:31 J	1046597.53	1046597.73	1046597.94	0.0518	0.0266
Jupiter	-1843-11-30 18:14 J	1048601.17	1048601.26	1048601.35	0.0510	0.0466
Saturn	-1838-07-04 00:57 J	1050277.40	1050277.54	1050277.70	0.0273	0.0213
Jupiter	-1836-06-11 11:45 J	1050985.76	1050985.99	1050986.21	0.0520	0.0084
Uranus	-1834-11-13 12:28 J	1051870.97	1051871.02	1051871.09	0.0141	0.0136
Uranus	-1833-11-16 23:02 J	1052240.33	1052240.46	1052240.61	0.0141	0.0116
Uranus	-1832-11-21 18:28 J	1052610.07	1052610.27	1052610.48	0.0142	0.0073
Uranus	-1831-11-26 07:55 J	1052979.59	1052979.83	1052980.08	0.0142	0.0042
Jupiter	-1831-12-05 12:28 J	1052988.80	1052989.02	1052989.23	0.0508	0.0181
Uranus	-1830-12-01 03:21 J	1053349.40	1053349.64	1053349.88	0.0143	0.0011
Uranus	-1829-12-04 19:40 J	1053719.08	1053719.32	1053719.58	0.0143	0.0034
Uranus	-1828-12-09 14:38 J	1054088.90	1054089.11	1054089.34	0.0143	0.0058
Uranus	-1827-12-14 10:33 J	1054458.78	1054458.94	1054459.13	0.0144	0.0106
Uranus	-1826-12-19 04:47 J	1054828.64	1054828.70	1054828.81	0.0144	0.0136
Saturn	-1825-12-28 09:50 J	1055203.69	1055203.91	1055204.14	0.0289	0.0103
Jupiter	-1824-06-16 12:43 J	1055373.87	1055374.03	1055374.21	0.0522	0.0373
Jupiter	-1819-12-09 15:21 J	1057375.91	1057376.14	1057376.37	0.0506	0.0057
Saturn	-1809-06-27 16:33 J	1060863.95	1060864.19	1060864.45	0.0271	0.0066
Jupiter	-1807-12-14 05:45 J	1061763.56	1061763.74	1061763.92	0.0505	0.0303
Saturn	-1796-12-22 14:52 J	1065789.97	1065790.12	1065790.29	0.0291	0.0219
Uranus	-1793-05-19 01:55 J	1066668.44	1066668.58	1066668.74	0.0137	0.0109
Uranus	-1792-05-23 18:43 J	1067038.06	1067038.28	1067038.52	0.0137	0.0069

Uranus	-1791-05-28 10:19 J	1067407.70	1067407.93	1067408.17	0.0136	0.0049
Uranus	-1790-06-02 03:07 J	1067777.36	1067777.63	1067777.90	0.0136	0.0004
Uranus	-1789-06-05 15:21 J	1068146.90	1068147.14	1068147.39	0.0136	0.0016
Uranus	-1788-06-10 08:09 J	1068516.60	1068516.84	1068517.09	0.0135	0.0054
Uranus	-1787-06-14 17:16 J	1068886.04	1068886.22	1068886.42	0.0135	0.0085
Uranus	-1786-06-19 09:21 J	1069255.76	1069255.89	1069256.07	0.0134	0.0109
Neptune	-1785-07-03 20:52 J	1069636.24	1069636.37	1069636.53	0.0089	0.0075
Neptune	-1784-07-06 12:00 J	1070003.78	1070004.00	1070004.23	0.0089	0.0042
Neptune	-1783-07-08 21:07 J	1070371.13	1070371.38	1070371.65	0.0089	0.0020
Neptune	-1782-07-11 15:50 J	1070738.91	1070739.16	1070739.42	0.0089	0.0015
Neptune	-1781-07-12 21:35 J	1071106.19	1071106.40	1071106.66	0.0089	0.0038
Neptune	-1780-07-15 17:31 J	1071474.11	1071474.23	1071474.41	0.0089	0.0073
Pluto	-1777-12-06 04:47 J	1072713.47	1072713.70	1072713.96	0.0066	0.0021
Saturn	-1766-12-30 23:45 J	1076755.32	1076755.49	1076755.68	0.0289	0.0204
Jupiter	-1765-06-05 11:16 J	1076912.79	1076912.97	1076913.15	0.0518	0.0322
Jupiter	-1753-06-10 09:50 J	1081300.66	1081300.91	1081301.15	0.0520	0.0025
Saturn	-1750-06-30 02:52 J	1082415.38	1082415.62	1082415.87	0.0272	0.0021
Uranus	-1749-11-17 10:47 J	1082921.77	1082921.95	1082922.14	0.0141	0.0097
Uranus	-1748-11-22 06:43 J	1083291.59	1083291.78	1083292.00	0.0142	0.0075
Jupiter	-1748-12-04 04:47 J	1083303.50	1083303.70	1083303.91	0.0509	0.0242
Uranus	-1747-11-26 19:26 J	1083661.06	1083661.31	1083661.56	0.0142	0.0035
Uranus	-1746-12-01 15:50 J	1084030.92	1084031.16	1084031.40	0.0143	0.0002
Uranus	-1745-12-05 07:26 J	1084400.56	1084400.81	1084401.06	0.0143	0.0027
Uranus	-1744-12-10 03:50 J	1084770.46	1084770.66	1084770.86	0.0144	0.0077
Uranus	-1743-12-14 22:19 J	1085140.26	1085140.43	1085140.63	0.0144	0.0100
Jupiter	-1741-06-15 08:38 J	1085688.68	1085688.86	1085689.04	0.0521	0.0305
Saturn	-1737-12-24 09:21 J	1087341.69	1087341.89	1087342.12	0.0290	0.0118
Jupiter	-1736-12-08 22:04 J	1087691.20	1087691.42	1087691.65	0.0507	0.0013
Mars	-1735-10-26 01:26 J	1088012.46	1088012.56	1088012.67	0.1709	0.1406
Jupiter	-1724-12-13 04:47 J	1092078.50	1092078.70	1092078.92	0.0506	0.0251

Saturn	-1721-06-24 12:57 J	1093002.93	1093003.04	1093003.16	0.0270	0.0239
Uranus	-1710-05-15 21:35 J	1096980.33	1096980.40	1096980.51	0.0138	0.0130
Mars	-1709-04-25 21:21 J	1097326.21	1097326.39	1097326.57	0.1822	0.0585
Uranus	-1709-05-19 17:45 J	1097350.07	1097350.24	1097350.42	0.0137	0.0099
Uranus	-1708-05-24 08:52 J	1097719.66	1097719.87	1097720.12	0.0137	0.0072
Uranus	-1707-05-29 01:26 J	1098089.32	1098089.56	1098089.81	0.0136	0.0029
Uranus	-1706-06-02 17:31 J	1098458.96	1098459.23	1098459.50	0.0136	0.0010
Uranus	-1705-06-06 06:57 J	1098828.55	1098828.79	1098829.04	0.0136	0.0033
Uranus	-1704-06-10 23:02 J	1099198.22	1099198.46	1099198.70	0.0135	0.0057
Neptune	-1704-12-31 04:47 J	1099401.56	1099401.70	1099401.88	0.0089	0.0070
Uranus	-1703-06-15 09:07 J	1099567.72	1099567.88	1099568.09	0.0135	0.0089
Neptune	-1702-01-02 18:43 J	1099769.07	1099769.28	1099769.52	0.0089	0.0039
Uranus	-1702-06-20 00:57 J	1099937.46	1099937.54	1099937.66	0.0134	0.0124
Neptune	-1701-01-04 23:31 J	1100136.23	1100136.48	1100136.74	0.0089	0.0015
Neptune	-1700-01-06 16:47 J	1100503.95	1100504.20	1100504.45	0.0088	0.0017
Neptune	-1699-01-08 20:09 J	1100871.13	1100871.34	1100871.57	0.0088	0.0041
Neptune	-1698-01-11 12:28 J	1101238.89	1101239.02	1101239.20	0.0088	0.0072
Saturn	-1691-07-01 18:28 J	1103967.06	1103967.27	1103967.50	0.0272	0.0106
Pluto	-1689-06-08 16:04 J	1104674.97	1104675.17	1104675.38	0.0079	0.0045
Jupiter	-1682-06-05 06:00 J	1107227.59	1107227.75	1107227.93	0.0517	0.0375
Saturn	-1678-12-27 06:57 J	1108893.56	1108893.79	1108894.03	0.0290	0.0014
Jupiter	-1670-06-10 03:35 J	1111615.42	1111615.65	1111615.88	0.0518	0.0048
Uranus	-1666-11-14 14:38 J	1113234.02	1113234.11	1113234.24	0.0140	0.0124
Uranus	-1665-11-18 00:00 J	1113603.34	1113603.50	1113603.68	0.0141	0.0105
Jupiter	-1665-12-03 12:14 J	1113618.83	1113619.01	1113619.19	0.0510	0.0305
Uranus	-1664-11-22 20:38 J	1113973.16	1113973.36	1113973.60	0.0142	0.0061
Uranus	-1663-11-27 08:24 J	1114342.60	1114342.85	1114343.10	0.0142	0.0031
Saturn	-1662-06-26 22:04 J	1114554.23	1114554.42	1114554.65	0.0271	0.0156
Uranus	-1662-12-02 05:31 J	1114712.49	1114712.73	1114712.97	0.0143	0.0001
Uranus	-1661-12-05 19:26 J	1115082.07	1115082.31	1115082.56	0.0143	0.0045

Uranus	-1660-12-10 16:19 J	1115451.98	1115452.18	1115452.41	0.0144	0.0069
Uranus	-1659-12-15 10:04 J	1115821.78	1115821.92	1115822.07	0.0144	0.0117
Jupiter	-1658-06-15 07:26 J	1116003.59	1116003.81	1116004.03	0.0520	0.0226
Uranus	-1658-12-20 06:57 J	1116191.79	1116191.79	1116191.79	0.0144	0.0144
Mars	-1656-10-28 03:35 J	1116869.48	1116869.65	1116869.82	0.1704	0.0394
Jupiter	-1653-12-07 19:12 J	1118006.07	1118006.30	1118006.54	0.0508	0.0073
Jupiter	-1646-06-20 01:26 J	1120391.51	1120391.56	1120391.61	0.0522	0.0509
Jupiter	-1641-12-12 06:57 J	1122393.59	1122393.79	1122394.00	0.0506	0.0196
Saturn	-1632-07-03 10:04 J	1125518.76	1125518.92	1125519.11	0.0272	0.0190
Mars	-1630-04-30 04:33 J	1126184.57	1126184.69	1126184.82	0.1829	0.1509
Jupiter	-1629-12-16 18:00 J	1126781.21	1126781.25	1126781.29	0.0504	0.0495
Uranus	-1626-05-16 11:02 J	1127661.90	1127661.96	1127662.07	0.0138	0.0130
Uranus	-1625-05-20 08:24 J	1128031.69	1128031.85	1128032.05	0.0138	0.0096
Uranus	-1624-05-24 23:16 J	1128401.24	1128401.47	1128401.73	0.0137	0.0057
Uranus	-1623-05-29 17:16 J	1128770.98	1128771.22	1128771.46	0.0137	0.0036
Uranus	-1622-06-03 08:24 J	1129140.58	1129140.85	1129141.12	0.0136	0.0009
Uranus	-1621-06-06 22:33 J	1129510.20	1129510.44	1129510.69	0.0136	0.0029
Uranus	-1620-06-11 12:57 J	1129879.82	1129880.04	1129880.29	0.0135	0.0067
Neptune	-1620-07-05 09:21 J	1129903.71	1129903.89	1129904.12	0.0089	0.0058
Uranus	-1619-06-16 00:00 J	1130249.35	1130249.50	1130249.69	0.0135	0.0097
Neptune	-1619-07-08 05:02 J	1130271.49	1130271.71	1130271.96	0.0089	0.0038
Saturn	-1619-12-28 23:31 J	1130445.26	1130445.48	1130445.72	0.0289	0.0089
Uranus	-1618-06-20 14:24 J	1130619.01	1130619.10	1130619.24	0.0135	0.0121
Neptune	-1618-07-10 11:16 J	1130638.72	1130638.97	1130639.24	0.0089	0.0002
Neptune	-1617-07-12 06:57 J	1131006.54	1131006.79	1131007.06	0.0089	0.0019
Neptune	-1616-07-14 13:40 J	1131373.88	1131374.07	1131374.29	0.0089	0.0054
Neptune	-1615-07-17 06:43 J	1131741.66	1131741.78	1131741.95	0.0089	0.0075
Saturn	-1603-06-28 04:19 J	1136105.44	1136105.68	1136105.93	0.0271	0.0075
Jupiter	-1599-06-04 03:07 J	1137542.51	1137542.63	1137542.75	0.0516	0.0436
Saturn	-1590-12-23 08:09 J	1141031.70	1141031.84	1141032.00	0.0291	0.0225

Jupiter	-1587-06-09 04:19 J	1141930.44	1141930.68	1141930.92	0.0519	0.0113
Uranus	-1582-11-15 03:07 J	1143915.57	1143915.63	1143915.71	0.0140	0.0134
Jupiter	-1582-12-03 12:00 J	1143933.83	1143934.00	1143934.17	0.0509	0.0363
Uranus	-1581-11-18 11:02 J	1144284.77	1144284.96	1144285.17	0.0141	0.0086
Uranus	-1580-11-23 08:09 J	1144654.63	1144654.84	1144655.07	0.0141	0.0065
Uranus	-1579-11-27 18:43 J	1145024.03	1145024.28	1145024.53	0.0142	0.0024
Uranus	-1578-12-02 16:33 J	1145393.95	1145394.19	1145394.43	0.0142	0.0011
Mars	-1577-10-30 02:38 J	1145726.50	1145726.61	1145726.72	0.1701	0.1327
Uranus	-1577-12-06 05:45 J	1145763.50	1145763.74	1145763.99	0.0143	0.0038
Uranus	-1576-12-11 03:50 J	1146133.48	1146133.66	1146133.86	0.0143	0.0087
Jupiter	-1575-06-14 00:28 J	1146318.30	1146318.52	1146318.74	0.0520	0.0165
Uranus	-1575-12-15 19:40 J	1146503.18	1146503.32	1146503.52	0.0144	0.0109
Saturn	-1573-07-04 19:40 J	1147070.29	1147070.32	1147070.36	0.0272	0.0269
Jupiter	-1570-12-07 22:33 J	1148321.23	1148321.44	1148321.66	0.0508	0.0132
Jupiter	-1563-06-19 10:04 J	1150706.82	1150706.92	1150707.04	0.0522	0.0456
Saturn	-1560-12-30 08:38 J	1151996.67	1151996.86	1151997.06	0.0289	0.0184
Jupiter	-1558-12-12 11:31 J	1152708.75	1152708.98	1152709.21	0.0506	0.0141
Jupiter	-1546-12-16 16:19 J	1157096.08	1157096.18	1157096.28	0.0505	0.0444
Saturn	-1544-06-29 12:14 J	1157656.76	1157657.01	1157657.25	0.0271	0.0005
Uranus	-1542-05-16 22:47 J	1158343.33	1158343.45	1158343.60	0.0138	0.0118
Uranus	-1541-05-20 20:52 J	1158713.19	1158713.37	1158713.58	0.0138	0.0089
Uranus	-1540-05-25 10:33 J	1159082.71	1159082.94	1159083.20	0.0137	0.0060
Neptune	-1540-12-30 16:04 J	1159302.07	1159302.17	1159302.28	0.0089	0.0080
Uranus	-1539-05-30 05:45 J	1159452.50	1159452.74	1159452.99	0.0137	0.0018
Neptune	-1538-01-01 19:55 J	1159669.15	1159669.33	1159669.53	0.0089	0.0060
Uranus	-1538-06-03 19:55 J	1159822.06	1159822.33	1159822.60	0.0136	0.0001
Neptune	-1537-01-04 13:12 J	1160036.81	1160037.05	1160037.30	0.0089	0.0025
Uranus	-1537-06-07 11:45 J	1160191.76	1160191.99	1160192.23	0.0136	0.0044
Neptune	-1536-01-05 16:47 J	1160403.95	1160404.20	1160404.45	0.0089	0.0006
Uranus	-1536-06-12 01:12 J	1160561.34	1160561.55	1160561.80	0.0135	0.0068

Neptune	-1535-01-08 08:09 J	1160771.61	1160771.84	1160772.10	0.0088	0.0029
Uranus	-1535-06-16 14:09 J	1160930.94	1160931.09	1160931.27	0.0135	0.0100
Neptune	-1534-01-10 14:38 J	1161138.91	1161139.11	1161139.33	0.0088	0.0049
Uranus	-1534-06-21 03:35 J	1161300.64	1161300.65	1161300.71	0.0135	0.0134
Neptune	-1533-01-13 01:55 J	1161506.50	1161506.58	1161506.69	0.0088	0.0083
Pluto	-1531-12-07 13:55 J	1162565.83	1162566.08	1162566.35	0.0065	0.0009
Saturn	-1531-12-25 00:00 J	1162583.29	1162583.50	1162583.71	0.0291	0.0130
Jupiter	-1516-06-03 06:14 J	1167857.67	1167857.76	1167857.84	0.0517	0.0483
Saturn	-1515-06-24 12:14 J	1168244.00	1168244.01	1168244.03	0.0269	0.0269
Jupiter	-1504-06-08 02:09 J	1172245.37	1172245.59	1172245.81	0.0518	0.0160
Saturn	-1501-12-31 14:52 J	1173548.06	1173548.12	1173548.22	0.0289	0.0272
Jupiter	-1499-12-02 16:04 J	1174249.05	1174249.17	1174249.29	0.0510	0.0422
Uranus	-1498-11-15 17:16 J	1174597.09	1174597.22	1174597.37	0.0140	0.0113
Uranus	-1497-11-19 00:57 J	1174966.37	1174966.54	1174966.74	0.0141	0.0095
Uranus	-1496-11-23 22:47 J	1175336.23	1175336.45	1175336.69	0.0141	0.0049
Uranus	-1495-11-28 08:24 J	1175705.60	1175705.85	1175706.11	0.0142	0.0022
Uranus	-1494-12-03 06:43 J	1176075.54	1176075.78	1176076.03	0.0142	0.0012
Uranus	-1493-12-06 18:43 J	1176445.05	1176445.28	1176445.52	0.0143	0.0054
Jupiter	-1492-06-13 09:35 J	1176633.67	1176633.90	1176634.14	0.0519	0.0106
Uranus	-1492-12-11 17:16 J	1176815.02	1176815.22	1176815.43	0.0143	0.0077
Uranus	-1491-12-16 08:09 J	1177184.74	1177184.84	1177184.98	0.0144	0.0127
Jupiter	-1487-12-07 05:02 J	1178636.50	1178636.71	1178636.94	0.0509	0.0187
Saturn	-1485-06-30 20:38 J	1179208.14	1179208.36	1179208.60	0.0271	0.0072
Jupiter	-1480-06-18 02:52 J	1181021.46	1181021.62	1181021.78	0.0521	0.0393
Jupiter	-1475-12-11 12:28 J	1183023.80	1183024.02	1183024.24	0.0507	0.0093
Saturn	-1472-12-26 10:04 J	1184134.69	1184134.92	1184135.16	0.0291	0.0047
Jupiter	-1463-12-16 07:26 J	1187411.68	1187411.81	1187411.94	0.0505	0.0410
Uranus	-1458-05-17 10:19 J	1189024.82	1189024.93	1189025.07	0.0138	0.0120
Uranus	-1457-05-21 09:50 J	1189394.72	1189394.91	1189395.12	0.0138	0.0084
Uranus	-1456-05-25 22:47 J	1189764.21	1189764.45	1189764.71	0.0137	0.0047

Saturn	-1456-06-25 11:45 J	1189794.83	1189794.99	1189795.17	0.0269	0.0200
Neptune	-1456-07-04 17:45 J	1189804.15	1189804.24	1189804.37	0.0089	0.0080
Uranus	-1455-05-30 19:12 J	1190134.06	1190134.30	1190134.55	0.0137	0.0025
Neptune	-1455-07-07 00:00 J	1190171.31	1190171.50	1190171.74	0.0089	0.0050
Uranus	-1454-06-04 08:09 J	1190503.58	1190503.84	1190504.11	0.0136	0.0020
Neptune	-1454-07-09 19:55 J	1190539.09	1190539.33	1190539.60	0.0089	0.0026
Uranus	-1453-06-08 00:28 J	1190873.29	1190873.52	1190873.77	0.0136	0.0039
Neptune	-1453-07-11 04:19 J	1190906.43	1190906.68	1190906.94	0.0089	0.0006
Uranus	-1452-06-12 12:57 J	1191242.84	1191243.04	1191243.27	0.0135	0.0078
Neptune	-1452-07-13 19:40 J	1191274.08	1191274.32	1191274.59	0.0089	0.0031
Uranus	-1451-06-17 02:38 J	1191612.48	1191612.61	1191612.78	0.0135	0.0106
Neptune	-1451-07-16 08:09 J	1191641.67	1191641.84	1191642.02	0.0089	0.0063
Mars	-1451-10-26 14:38 J	1191743.95	1191744.11	1191744.26	0.1715	0.1080
Uranus	-1450-06-21 15:07 J	1191982.09	1191982.13	1191982.21	0.0135	0.0131
Neptune	-1450-07-18 18:14 J	1192009.24	1192009.26	1192009.35	0.0089	0.0087
Pluto	-1443-06-10 00:00 J	1194527.26	1194527.50	1194527.77	0.0079	0.0022
Saturn	-1426-07-03 01:40 J	1200759.35	1200759.57	1200759.78	0.0271	0.0137
Mars	-1425-04-26 05:16 J	1201057.54	1201057.72	1201057.90	0.1815	0.0595
Jupiter	-1421-06-07 12:28 J	1202560.80	1202561.02	1202561.24	0.0517	0.0211
Jupiter	-1416-12-02 02:24 J	1204564.51	1204564.60	1204564.70	0.0510	0.0467
Uranus	-1414-11-16 07:26 J	1205278.71	1205278.81	1205278.95	0.0140	0.0123
Uranus	-1413-11-19 14:38 J	1205647.91	1205648.11	1205648.34	0.0141	0.0075
Saturn	-1413-12-27 10:33 J	1205685.69	1205685.94	1205686.19	0.0291	0.0026
Uranus	-1412-11-24 12:28 J	1206017.79	1206018.02	1206018.25	0.0141	0.0054
Uranus	-1411-11-28 21:21 J	1206387.15	1206387.39	1206387.65	0.0142	0.0013
Uranus	-1410-12-03 20:24 J	1206757.11	1206757.35	1206757.59	0.0142	0.0021
Jupiter	-1409-06-12 02:09 J	1206948.35	1206948.59	1206948.83	0.0520	0.0042
Uranus	-1409-12-07 07:40 J	1207126.59	1207126.82	1207127.07	0.0143	0.0049
Uranus	-1408-12-12 06:57 J	1207496.64	1207496.79	1207496.99	0.0143	0.0098
Uranus	-1407-12-16 21:21 J	1207866.26	1207866.39	1207866.55	0.0144	0.0118

Jupiter	-1404-12-06 11:45 J	1208951.79	1208951.99	1208952.20	0.0509	0.0221
Jupiter	-1397-06-17 10:47 J	1211336.79	1211336.95	1211337.12	0.0522	0.0348
Saturn	-1397-06-26 10:33 J	1211345.74	1211345.94	1211346.16	0.0269	0.0139
Jupiter	-1392-12-11 05:16 J	1213339.49	1213339.72	1213339.95	0.0507	0.0069
Jupiter	-1380-12-15 08:24 J	1217726.70	1217726.85	1217727.01	0.0505	0.0375
Neptune	-1374-01-01 08:52 J	1219569.75	1219569.87	1219570.02	0.0089	0.0075
Uranus	-1374-05-17 22:04 J	1219706.27	1219706.42	1219706.60	0.0138	0.0107
Neptune	-1373-01-03 12:57 J	1219936.84	1219937.04	1219937.27	0.0089	0.0043
Uranus	-1373-05-21 22:19 J	1220076.22	1220076.43	1220076.64	0.0138	0.0078
Neptune	-1372-01-05 03:50 J	1220304.42	1220304.66	1220304.93	0.0089	0.0022
Uranus	-1372-05-26 10:04 J	1220445.68	1220445.92	1220446.18	0.0137	0.0048
Mars	-1372-10-29 06:00 J	1220601.55	1220601.75	1220601.94	0.1710	0.0070
Neptune	-1371-01-07 11:45 J	1220671.75	1220671.99	1220672.24	0.0089	0.0012
Uranus	-1371-05-31 07:26 J	1220815.56	1220815.81	1220816.06	0.0137	0.0007
Neptune	-1370-01-09 22:19 J	1221039.19	1221039.43	1221039.68	0.0089	0.0033
Uranus	-1370-06-04 19:12 J	1221185.04	1221185.30	1221185.57	0.0136	0.0012
Neptune	-1369-01-12 10:47 J	1221406.80	1221406.95	1221407.13	0.0088	0.0066
Uranus	-1369-06-08 13:26 J	1221554.84	1221555.06	1221555.29	0.0136	0.0055
Neptune	-1368-01-13 15:50 J	1221774.13	1221774.16	1221774.24	0.0088	0.0087
Uranus	-1368-06-13 00:57 J	1221924.33	1221924.54	1221924.77	0.0135	0.0077
Uranus	-1367-06-17 16:04 J	1222294.05	1222294.17	1222294.33	0.0135	0.0112
Saturn	-1367-07-03 21:35 J	1222310.23	1222310.40	1222310.59	0.0271	0.0192
Saturn	-1354-12-29 04:33 J	1227236.45	1227236.69	1227236.92	0.0290	0.0088
Mars	-1346-04-30 00:28 J	1229915.40	1229915.52	1229915.64	0.1821	0.1401
Jupiter	-1338-06-07 08:38 J	1232875.65	1232875.86	1232876.06	0.0518	0.0263
Saturn	-1338-06-28 13:55 J	1232896.85	1232897.08	1232897.31	0.0269	0.0084
Jupiter	-1333-12-01 09:35 J	1234879.86	1234879.90	1234879.95	0.0510	0.0499
Uranus	-1330-11-16 22:47 J	1235960.30	1235960.45	1235960.64	0.0140	0.0101
Uranus	-1329-11-20 06:14 J	1236329.57	1236329.76	1236329.97	0.0141	0.0083
Uranus	-1328-11-25 04:19 J	1236699.45	1236699.68	1236699.93	0.0141	0.0036

Uranus	-1327-11-29 13:12 J	1237068.80	1237069.05	1237069.30	0.0142	0.0010
Jupiter	-1326-06-12 18:00 J	1237264.02	1237264.25	1237264.48	0.0519	0.0006
Uranus	-1326-12-04 12:14 J	1237438.77	1237439.01	1237439.26	0.0142	0.0025
Uranus	-1325-12-07 22:47 J	1237808.24	1237808.45	1237808.69	0.0143	0.0066
Saturn	-1325-12-22 06:00 J	1237822.68	1237822.75	1237822.83	0.0293	0.0277
Uranus	-1324-12-12 23:02 J	1238178.27	1238178.46	1238178.65	0.0143	0.0089
Uranus	-1323-12-17 12:14 J	1238547.96	1238548.01	1238548.10	0.0144	0.0139
Jupiter	-1321-12-06 04:04 J	1239267.47	1239267.67	1239267.87	0.0509	0.0253
Jupiter	-1314-06-17 18:28 J	1241652.07	1241652.27	1241652.47	0.0521	0.0312
Jupiter	-1309-12-10 07:40 J	1243654.59	1243654.82	1243655.05	0.0507	0.0038
Saturn	-1308-07-04 14:52 J	1243861.02	1243861.12	1243861.25	0.0271	0.0241
Jupiter	-1297-12-15 01:55 J	1248042.43	1248042.58	1248042.75	0.0506	0.0349
Saturn	-1295-12-30 00:43 J	1248787.33	1248787.53	1248787.74	0.0290	0.0146
Uranus	-1291-05-13 23:45 J	1250018.43	1250018.49	1250018.59	0.0139	0.0131
Neptune	-1291-07-06 07:40 J	1250071.65	1250071.82	1250072.02	0.0089	0.0064
Uranus	-1290-05-18 12:14 J	1250387.86	1250388.01	1250388.18	0.0138	0.0109
Neptune	-1290-07-08 17:02 J	1250439.01	1250439.21	1250439.44	0.0089	0.0045
Uranus	-1289-05-22 12:57 J	1250757.83	1250758.04	1250758.27	0.0138	0.0071
Neptune	-1289-07-10 07:40 J	1250806.55	1250806.82	1250807.09	0.0089	0.0008
Uranus	-1288-05-27 00:28 J	1251127.27	1251127.52	1251127.78	0.0137	0.0036
Neptune	-1288-07-12 22:19 J	1251174.18	1251174.43	1251174.68	0.0089	0.0011
Uranus	-1287-05-31 22:33 J	1251497.19	1251497.44	1251497.69	0.0137	0.0013
Neptune	-1287-07-15 07:55 J	1251541.61	1251541.83	1251542.07	0.0089	0.0047
Uranus	-1286-06-05 09:21 J	1251866.64	1251866.89	1251867.16	0.0136	0.0032
Neptune	-1286-07-18 02:09 J	1251909.43	1251909.59	1251909.77	0.0089	0.0066
Uranus	-1285-06-09 03:50 J	1252236.44	1252236.66	1252236.91	0.0136	0.0050
Pluto	-1285-12-08 01:12 J	1252418.42	1252418.55	1252418.73	0.0065	0.0050
Uranus	-1284-06-13 14:38 J	1252605.91	1252606.11	1252606.31	0.0135	0.0090
Pluto	-1284-12-09 14:24 J	1252784.94	1252785.10	1252785.31	0.0066	0.0047
Uranus	-1283-06-18 06:14 J	1252975.65	1252975.76	1252975.90	0.0135	0.0117

Saturn	-1279-06-29 16:04 J	1254447.92	1254448.17	1254448.41	0.0269	0.0031
Saturn	-1266-12-23 23:31 J	1259373.32	1259373.48	1259373.65	0.0293	0.0219
Jupiter	-1255-06-07 01:40 J	1263191.38	1263191.57	1263191.76	0.0517	0.0301
Uranus	-1247-11-12 17:16 J	1266272.15	1266272.22	1266272.34	0.0140	0.0129
Uranus	-1246-11-17 13:40 J	1266641.93	1266642.07	1266642.24	0.0140	0.0109
Uranus	-1245-11-20 20:52 J	1267011.16	1267011.37	1267011.60	0.0141	0.0062
Uranus	-1244-11-25 18:28 J	1267381.04	1267381.27	1267381.52	0.0141	0.0041
Jupiter	-1243-06-11 23:02 J	1267579.22	1267579.46	1267579.71	0.0519	0.0042
Uranus	-1243-11-30 03:21 J	1267750.39	1267750.64	1267750.89	0.0142	0.0001
Uranus	-1242-12-05 02:38 J	1268120.37	1268120.61	1268120.86	0.0142	0.0034
Uranus	-1241-12-08 12:57 J	1268489.83	1268490.04	1268490.28	0.0143	0.0062
Uranus	-1240-12-13 13:40 J	1268859.93	1268860.07	1268860.25	0.0143	0.0109
Uranus	-1239-12-18 02:52 J	1269229.53	1269229.62	1269229.75	0.0144	0.0130
Jupiter	-1238-12-06 09:07 J	1269582.69	1269582.88	1269583.08	0.0509	0.0284
Saturn	-1236-12-30 23:31 J	1270338.33	1270338.48	1270338.66	0.0290	0.0203
Jupiter	-1231-06-16 18:43 J	1271967.08	1271967.28	1271967.48	0.0521	0.0261
Jupiter	-1226-12-11 05:02 J	1273970.49	1273970.71	1273970.93	0.0508	0.0032
Saturn	-1220-06-30 12:14 J	1275998.76	1275999.01	1275999.27	0.0269	0.0021
Jupiter	-1214-12-15 12:43 J	1278357.85	1278358.03	1278358.22	0.0506	0.0324
Neptune	-1211-12-31 09:35 J	1279469.86	1279469.90	1279469.99	0.0089	0.0086
Neptune	-1209-01-02 23:31 J	1279837.33	1279837.48	1279837.69	0.0089	0.0065
Neptune	-1208-01-04 08:24 J	1280204.63	1280204.85	1280205.09	0.0089	0.0032
Neptune	-1207-01-06 17:16 J	1280571.96	1280572.22	1280572.49	0.0089	0.0010
Uranus	-1207-05-14 14:24 J	1280700.09	1280700.10	1280700.15	0.0139	0.0138
Saturn	-1207-12-24 13:40 J	1280923.87	1280924.07	1280924.28	0.0293	0.0160
Neptune	-1206-01-09 06:57 J	1280939.56	1280939.79	1280940.04	0.0089	0.0023
Uranus	-1206-05-19 02:09 J	1281069.42	1281069.59	1281069.80	0.0138	0.0093
Neptune	-1205-01-11 12:00 J	1281306.78	1281307.00	1281307.23	0.0089	0.0043
Uranus	-1205-05-23 02:52 J	1281439.41	1281439.62	1281439.86	0.0138	0.0066
Neptune	-1204-01-13 04:33 J	1281674.58	1281674.69	1281674.84	0.0088	0.0076

Uranus	-1204-05-27 13:40 J	1281808.83	1281809.07	1281809.33	0.0137	0.0035
Uranus	-1203-06-01 12:14 J	1282178.76	1282179.01	1282179.27	0.0137	0.0006
Uranus	-1202-06-05 22:19 J	1282548.17	1282548.43	1282548.69	0.0136	0.0023
Uranus	-1201-06-09 18:00 J	1282918.04	1282918.25	1282918.48	0.0136	0.0068
Uranus	-1200-06-14 03:50 J	1283287.47	1283287.66	1283287.87	0.0136	0.0088
Uranus	-1199-06-18 21:07 J	1283657.30	1283657.38	1283657.50	0.0135	0.0123
Pluto	-1196-06-12 04:47 J	1284746.63	1284746.70	1284746.82	0.0079	0.0073
Saturn	-1191-06-25 00:57 J	1286585.46	1286585.54	1286585.61	0.0268	0.0253
Saturn	-1177-12-31 19:40 J	1291889.21	1291889.32	1291889.44	0.0290	0.0258
Jupiter	-1172-06-05 23:31 J	1293506.31	1293506.48	1293506.67	0.0517	0.0354
Mars	-1167-10-27 07:55 J	1295475.67	1295475.83	1295475.99	0.1721	0.0689
Uranus	-1163-11-13 07:12 J	1296953.74	1296953.80	1296953.90	0.0140	0.0133
Uranus	-1162-11-18 03:35 J	1297323.46	1297323.65	1297323.85	0.0140	0.0089
Saturn	-1161-07-01 07:12 J	1297549.56	1297549.80	1297550.06	0.0269	0.0074
Uranus	-1161-11-21 10:33 J	1297692.74	1297692.94	1297693.17	0.0141	0.0071
Jupiter	-1160-06-11 01:40 J	1297894.35	1297894.57	1297894.80	0.0519	0.0091
Uranus	-1160-11-26 08:52 J	1298062.62	1298062.87	1298063.11	0.0141	0.0024
Uranus	-1159-11-30 17:31 J	1298431.98	1298432.23	1298432.48	0.0142	0.0002
Uranus	-1158-12-05 17:02 J	1298801.97	1298802.21	1298802.45	0.0142	0.0037
Uranus	-1157-12-09 03:21 J	1299171.43	1299171.64	1299171.85	0.0143	0.0077
Uranus	-1156-12-14 04:04 J	1299541.50	1299541.67	1299541.85	0.0143	0.0100
Jupiter	-1155-12-06 03:50 J	1299898.48	1299898.66	1299898.84	0.0509	0.0303
Jupiter	-1148-06-16 09:35 J	1302282.69	1302282.90	1302283.12	0.0521	0.0239
Saturn	-1148-12-25 10:19 J	1302474.71	1302474.93	1302475.15	0.0292	0.0101
Jupiter	-1143-12-10 12:43 J	1304285.79	1304286.03	1304286.27	0.0508	0.0006
Mars	-1141-04-25 13:55 J	1304787.91	1304788.08	1304788.26	0.1806	0.1092
Saturn	-1132-06-26 04:19 J	1308136.53	1308136.68	1308136.86	0.0268	0.0199
Jupiter	-1131-12-14 22:33 J	1308673.26	1308673.44	1308673.62	0.0506	0.0288
Neptune	-1127-07-05 07:55 J	1309971.78	1309971.83	1309971.93	0.0089	0.0085
Neptune	-1126-07-07 20:38 J	1310339.18	1310339.36	1310339.59	0.0089	0.0057

Neptune	-1125-07-09 12:28 J	1310706.79	1310707.02	1310707.27	0.0089	0.0030
Neptune	-1124-07-11 20:52 J	1311074.11	1311074.37	1311074.64	0.0089	0.0002
Uranus	-1123-05-15 05:16 J	1311381.61	1311381.72	1311381.88	0.0139	0.0118
Neptune	-1123-07-14 16:04 J	1311441.93	1311442.17	1311442.43	0.0089	0.0025
Uranus	-1122-05-19 16:47 J	1311751.04	1311751.20	1311751.41	0.0138	0.0097
Neptune	-1122-07-16 21:50 J	1311809.22	1311809.41	1311809.63	0.0089	0.0054
Uranus	-1121-05-23 18:28 J	1312121.04	1312121.27	1312121.51	0.0138	0.0057
Neptune	-1121-07-18 17:45 J	1312177.15	1312177.24	1312177.38	0.0089	0.0080
Uranus	-1120-05-28 04:47 J	1312490.45	1312490.70	1312490.97	0.0137	0.0024
Uranus	-1119-06-02 04:04 J	1312860.41	1312860.67	1312860.92	0.0137	0.0002
Uranus	-1118-06-06 13:12 J	1313229.81	1313230.05	1313230.31	0.0136	0.0044
Uranus	-1117-06-10 09:35 J	1313599.68	1313599.90	1313600.13	0.0136	0.0061
Uranus	-1116-06-14 18:14 J	1313969.10	1313969.26	1313969.45	0.0136	0.0103
Uranus	-1115-06-19 12:14 J	1314338.94	1314339.01	1314339.10	0.0135	0.0127
Saturn	-1102-07-03 07:55 J	1319100.63	1319100.83	1319101.06	0.0270	0.0134
Jupiter	-1089-06-05 09:21 J	1323821.75	1323821.89	1323822.04	0.0516	0.0391
Saturn	-1089-12-26 13:55 J	1324025.85	1324026.08	1324026.31	0.0292	0.0035
Mars	-1088-10-29 15:35 J	1324332.96	1324333.15	1324333.34	0.1716	0.0347
Uranus	-1079-11-13 21:07 J	1327635.25	1327635.38	1327635.51	0.0140	0.0118
Uranus	-1078-11-18 16:19 J	1328005.00	1328005.18	1328005.36	0.0140	0.0098
Jupiter	-1077-06-10 14:24 J	1328209.86	1328210.10	1328210.34	0.0518	0.0124
Uranus	-1077-11-21 23:45 J	1328374.26	1328374.49	1328374.72	0.0141	0.0051
Uranus	-1076-11-26 20:52 J	1328744.13	1328744.37	1328744.62	0.0141	0.0030
Uranus	-1075-12-01 05:31 J	1329113.48	1329113.73	1329113.98	0.0142	0.0012
Uranus	-1074-12-06 04:47 J	1329483.47	1329483.70	1329483.95	0.0142	0.0044
Saturn	-1073-06-27 07:26 J	1329687.61	1329687.81	1329688.04	0.0269	0.0139
Uranus	-1073-12-09 14:52 J	1329852.92	1329853.12	1329853.35	0.0143	0.0073
Jupiter	-1072-12-05 08:52 J	1330213.70	1330213.87	1330214.05	0.0510	0.0339
Uranus	-1072-12-14 16:19 J	1330223.05	1330223.18	1330223.32	0.0143	0.0119
Uranus	-1071-12-19 04:19 J	1330592.64	1330592.68	1330592.76	0.0144	0.0140

Jupiter	-1065-06-15 08:38 J	1332597.65	1332597.86	1332598.08	0.0520	0.0202
Mars	-1062-04-30 04:47 J	1333646.58	1333646.70	1333646.81	0.1814	0.1472
Jupiter	-1060-12-09 21:50 J	1334601.19	1334601.41	1334601.63	0.0508	0.0026
Jupiter	-1048-12-14 14:09 J	1338988.89	1338989.09	1338989.29	0.0507	0.0258
Neptune	-1045-01-02 05:16 J	1339737.63	1339737.72	1339737.83	0.0089	0.0080
Neptune	-1044-01-03 13:26 J	1340104.85	1340105.06	1340105.30	0.0089	0.0046
Neptune	-1043-01-06 04:19 J	1340472.45	1340472.68	1340472.93	0.0089	0.0028
Saturn	-1043-07-04 16:04 J	1340652.02	1340652.17	1340652.35	0.0270	0.0197
Neptune	-1042-01-08 08:38 J	1340839.61	1340839.86	1340840.12	0.0089	0.0007
Neptune	-1041-01-11 01:26 J	1341207.33	1341207.56	1341207.82	0.0089	0.0027
Neptune	-1040-01-12 04:47 J	1341574.54	1341574.70	1341574.90	0.0089	0.0061
Neptune	-1039-01-14 20:38 J	1341942.27	1341942.36	1341942.50	0.0089	0.0080
Uranus	-1039-05-15 16:47 J	1342063.12	1342063.20	1342063.32	0.0139	0.0127
Uranus	-1038-05-20 04:47 J	1342432.50	1342432.70	1342432.91	0.0138	0.0082
Pluto	-1038-12-10 20:38 J	1342637.11	1342637.36	1342637.62	0.0065	0.0002
Uranus	-1037-05-24 06:00 J	1342802.52	1342802.75	1342802.99	0.0138	0.0055
Uranus	-1036-05-28 16:04 J	1343171.92	1343172.17	1343172.43	0.0137	0.0024
Jupiter	-1036-12-18 17:45 J	1343376.19	1343376.24	1343376.32	0.0505	0.0480
Uranus	-1035-06-02 15:35 J	1343541.90	1343542.15	1343542.41	0.0137	0.0016
Uranus	-1034-06-07 00:28 J	1343911.27	1343911.52	1343911.78	0.0136	0.0034
Uranus	-1033-06-10 21:50 J	1344281.22	1344281.41	1344281.63	0.0136	0.0079
Uranus	-1032-06-15 06:28 J	1344650.60	1344650.77	1344650.96	0.0136	0.0098
Uranus	-1031-06-20 01:26 J	1345020.55	1345020.56	1345020.61	0.0135	0.0134
Saturn	-1030-12-28 18:43 J	1345577.04	1345577.28	1345577.52	0.0292	0.0037
Saturn	-1014-06-29 07:55 J	1351238.58	1351238.83	1351239.08	0.0269	0.0076
Jupiter	-1006-06-05 16:33 J	1354137.07	1354137.19	1354137.33	0.0516	0.0434

1ST MILLENNIUM BCE

This is a list of transits of Moon in the 1st millennium BCE.

FROM	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Uranus	-995-11-14 09:21 J		1358316.79	1358316.89	1358317.02	0.0140	0.0122	
Jupiter	-994-06-10 06:14 J		1358524.55	1358524.76	1358524.98	0.0517	0.0185	
Uranus	-994-11-19 04:04 J		1358686.47	1358686.67	1358686.89	0.0140	0.0079	
Uranus	-993-11-22 12:00 J		1359055.79	1359056.00	1359056.23	0.0141	0.0061	
Uranus	-992-11-27 09:21 J		1359425.63	1359425.89	1359426.14	0.0141	0.0013	
Uranus	-991-12-01 18:14 J		1359795.02	1359795.26	1359795.51	0.0142	0.0011	
Uranus	-990-12-06 17:16 J		1360164.99	1360165.22	1360165.47	0.0142	0.0047	
Jupiter	-989-12-04 17:31 J		1360529.09	1360529.23	1360529.39	0.0511	0.0372	
Uranus	-989-12-10 03:21 J		1360534.46	1360534.64	1360534.85	0.0143	0.0087	
Uranus	-988-12-15 04:19 J		1360904.54	1360904.68	1360904.85	0.0143	0.0110	
Saturn	-984-07-06 02:24 J		1362203.57	1362203.60	1362203.65	0.0270	0.0267	
Jupiter	-982-06-15 13:55 J		1362912.85	1362913.08	1362913.30	0.0519	0.0151	
Jupiter	-977-12-09 08:38 J		1364916.63	1364916.86	1364917.10	0.0509	0.0058	
Saturn	-971-12-29 23:16 J		1367128.25	1367128.47	1367128.71	0.0291	0.0119	
Jupiter	-970-06-20 10:04 J		1367300.85	1367300.92	1367301.01	0.0521	0.0489	
Jupiter	-965-12-13 13:40 J		1369303.87	1369304.07	1369304.28	0.0507	0.0210	
Neptune	-962-07-07 03:07 J		1370239.49	1370239.63	1370239.81	0.0089	0.0069	
Neptune	-961-07-08 10:19 J		1370606.74	1370606.93	1370607.17	0.0089	0.0051	
Neptune	-960-07-11 06:43 J		1370974.53	1370974.78	1370975.05	0.0089	0.0014	
Neptune	-959-07-13 12:43 J		1371341.78	1371342.03	1371342.29	0.0089	0.0005	
Neptune	-958-07-16 08:24 J		1371709.62	1371709.85	1371710.09	0.0089	0.0041	
Neptune	-957-07-17 16:33 J		1372077.00	1372077.19	1372077.38	0.0089	0.0059	

Uranus	-955-05-16 03:21 J	1372744.49	1372744.64	1372744.82	0.0139	0.0108
Saturn	-955-06-30 13:12 J	1372789.80	1372790.05	1372790.30	0.0269	0.0007
Uranus	-954-05-20 15:21 J	1373113.95	1373114.14	1373114.35	0.0138	0.0088
Uranus	-953-05-24 17:02 J	1373483.97	1373484.21	1373484.46	0.0138	0.0047
Jupiter	-953-12-18 05:31 J	1373691.62	1373691.73	1373691.86	0.0505	0.0427
Uranus	-952-05-29 03:35 J	1373853.39	1373853.65	1373853.90	0.0137	0.0015
Uranus	-951-06-03 03:21 J	1374223.38	1374223.64	1374223.90	0.0137	0.0010
Uranus	-950-06-07 12:14 J	1374592.77	1374593.01	1374593.25	0.0137	0.0053
Pluto	-950-06-12 21:35 J	1374598.15	1374598.40	1374598.67	0.0079	0.0024
Uranus	-949-06-11 10:04 J	1374962.71	1374962.92	1374963.14	0.0136	0.0070
Uranus	-948-06-15 17:45 J	1375332.11	1375332.24	1375332.40	0.0136	0.0113
Saturn	-942-12-24 06:28 J	1377714.62	1377714.77	1377714.94	0.0293	0.0214
Saturn	-926-06-26 00:00 J	1383377.43	1383377.50	1383377.59	0.0268	0.0253
Jupiter	-923-06-04 08:38 J	1384451.81	1384451.86	1384451.92	0.0515	0.0498
Saturn	-912-12-31 07:26 J	1388679.65	1388679.81	1388679.98	0.0291	0.0212
Jupiter	-911-06-09 15:21 J	1388839.94	1388840.14	1388840.36	0.0517	0.0234
Uranus	-911-11-14 23:45 J	1388998.35	1388998.49	1388998.65	0.0139	0.0109
Uranus	-910-11-19 17:31 J	1389368.04	1389368.23	1389368.43	0.0140	0.0087
Uranus	-909-11-23 02:09 J	1389737.36	1389737.59	1389737.82	0.0140	0.0041
Uranus	-908-11-27 22:04 J	1390107.17	1390107.42	1390107.68	0.0141	0.0021
Uranus	-907-12-02 07:26 J	1390476.57	1390476.81	1390477.05	0.0141	0.0023
Jupiter	-906-12-05 00:43 J	1390844.40	1390844.53	1390844.67	0.0511	0.0411
Uranus	-906-12-07 06:00 J	1390846.52	1390846.75	1390846.99	0.0142	0.0053
Uranus	-905-12-10 16:19 J	1391215.99	1391216.18	1391216.39	0.0142	0.0083
Uranus	-904-12-15 17:02 J	1391586.12	1391586.21	1391586.33	0.0143	0.0128
Jupiter	-899-06-14 09:50 J	1393227.67	1393227.91	1393228.15	0.0519	0.0102
Saturn	-896-07-02 02:38 J	1394341.38	1394341.61	1394341.85	0.0270	0.0072
Jupiter	-894-12-09 05:02 J	1395231.49	1395231.71	1395231.93	0.0509	0.0108
Jupiter	-887-06-19 15:21 J	1397616.02	1397616.14	1397616.27	0.0520	0.0434
Mars	-883-10-28 14:09 J	1399207.91	1399208.09	1399208.27	0.1727	0.0157

Saturn	-883-12-25 23:45 J	1399266.27	1399266.49	1399266.71	0.0292	0.0115
Jupiter	-882-12-13 23:31 J	1399619.27	1399619.48	1399619.70	0.0508	0.0156
Neptune	-880-01-03 00:43 J	1400005.39	1400005.53	1400005.71	0.0089	0.0068
Neptune	-879-01-05 04:33 J	1400372.48	1400372.69	1400372.94	0.0089	0.0038
Neptune	-878-01-07 22:19 J	1400740.18	1400740.43	1400740.69	0.0089	0.0014
Neptune	-877-01-10 02:09 J	1401107.34	1401107.59	1401107.84	0.0089	0.0017
Neptune	-876-01-11 17:16 J	1401475.00	1401475.22	1401475.47	0.0089	0.0039
Neptune	-875-01-14 00:28 J	1401842.39	1401842.52	1401842.70	0.0089	0.0070
Uranus	-872-05-11 10:04 J	1403055.90	1403055.92	1403055.98	0.0140	0.0138
Uranus	-871-05-16 12:00 J	1403425.88	1403426.00	1403426.15	0.0139	0.0118
Uranus	-870-05-21 00:28 J	1403795.32	1403795.52	1403795.75	0.0139	0.0073
Jupiter	-870-12-18 03:07 J	1404006.48	1404006.63	1404006.79	0.0506	0.0379
Uranus	-869-05-25 01:40 J	1404165.34	1404165.57	1404165.83	0.0138	0.0048
Uranus	-868-05-29 12:14 J	1404534.76	1404535.01	1404535.27	0.0138	0.0014
Uranus	-867-06-03 12:14 J	1404904.76	1404905.01	1404905.27	0.0137	0.0024
Saturn	-867-06-27 08:52 J	1404928.68	1404928.87	1404929.07	0.0269	0.0173
Uranus	-866-06-07 20:52 J	1405274.13	1405274.37	1405274.62	0.0137	0.0044
Uranus	-865-06-11 19:26 J	1405644.13	1405644.31	1405644.52	0.0136	0.0089
Uranus	-864-06-16 03:21 J	1406013.49	1406013.64	1406013.82	0.0136	0.0106
Mars	-857-04-25 06:57 J	1408518.67	1408518.79	1408518.92	0.1798	0.1308
Saturn	-837-07-03 18:28 J	1415893.07	1415893.27	1415893.47	0.0270	0.0154
Jupiter	-828-06-08 08:09 J	1419154.64	1419154.84	1419155.04	0.0516	0.0290
Uranus	-828-11-11 04:19 J	1419310.65	1419310.68	1419310.75	0.0139	0.0136
Uranus	-827-11-15 13:12 J	1419679.91	1419680.05	1419680.21	0.0139	0.0110
Uranus	-826-11-20 06:00 J	1420049.55	1420049.75	1420049.99	0.0140	0.0069
Uranus	-825-11-23 15:35 J	1420418.94	1420419.15	1420419.39	0.0140	0.0050
Uranus	-824-11-28 11:45 J	1420788.73	1420788.99	1420789.24	0.0141	0.0002
Saturn	-824-12-27 14:24 J	1420817.85	1420818.10	1420818.35	0.0292	0.0013
Uranus	-823-12-02 21:50 J	1421158.17	1421158.41	1421158.66	0.0141	0.0021
Jupiter	-823-12-03 19:12 J	1421159.21	1421159.30	1421159.39	0.0512	0.0467

Uranus	-822-12-07 19:55 J	1421528.11	1421528.33	1421528.57	0.0142	0.0058
Uranus	-821-12-11 06:43 J	1421897.60	1421897.78	1421897.97	0.0142	0.0096
Uranus	-820-12-16 06:43 J	1422267.66	1422267.78	1422267.93	0.0143	0.0120
Jupiter	-816-06-13 10:33 J	1423542.71	1423542.94	1423543.17	0.0518	0.0036
Jupiter	-811-12-08 13:40 J	1425546.86	1425547.07	1425547.29	0.0510	0.0156
Saturn	-808-06-28 16:47 J	1426479.96	1426480.20	1426480.44	0.0269	0.0093
Jupiter	-804-06-18 06:14 J	1427930.58	1427930.76	1427930.94	0.0519	0.0356
Mars	-804-10-30 16:33 J	1428065.04	1428065.19	1428065.34	0.1722	0.0813
Jupiter	-799-12-12 18:00 J	1429934.02	1429934.25	1429934.48	0.0508	0.0097
Neptune	-798-07-06 02:24 J	1430139.56	1430139.60	1430139.68	0.0089	0.0086
Neptune	-797-07-07 22:19 J	1430507.27	1430507.43	1430507.65	0.0089	0.0062
Neptune	-796-07-10 04:33 J	1430874.47	1430874.69	1430874.94	0.0089	0.0033
Neptune	-795-07-12 23:31 J	1431242.22	1431242.48	1431242.75	0.0089	0.0007
Neptune	-794-07-15 08:09 J	1431609.60	1431609.84	1431610.09	0.0089	0.0021
Neptune	-793-07-16 23:02 J	1431977.24	1431977.46	1431977.70	0.0089	0.0047
Neptune	-792-07-19 12:43 J	1432344.91	1432345.03	1432345.17	0.0089	0.0075
Pluto	-792-12-11 07:12 J	1432489.70	1432489.80	1432489.95	0.0065	0.0056
Pluto	-791-12-12 13:26 J	1432855.85	1432856.06	1432856.28	0.0065	0.0034
Uranus	-787-05-16 22:19 J	1434107.26	1434107.43	1434107.63	0.0139	0.0098
Jupiter	-787-12-17 11:02 J	1434321.79	1434321.96	1434322.13	0.0506	0.0324
Uranus	-786-05-21 11:31 J	1434476.79	1434476.98	1434477.20	0.0139	0.0079
Uranus	-785-05-25 12:43 J	1434846.78	1434847.03	1434847.29	0.0138	0.0036
Uranus	-784-05-29 23:45 J	1435216.23	1435216.49	1435216.75	0.0138	0.0006
Uranus	-783-06-03 23:45 J	1435586.23	1435586.49	1435586.75	0.0137	0.0020
Uranus	-782-06-08 08:24 J	1435955.64	1435955.85	1435956.10	0.0137	0.0063
Uranus	-781-06-12 07:26 J	1436325.61	1436325.81	1436326.03	0.0136	0.0079
Uranus	-780-06-16 14:38 J	1436695.02	1436695.11	1436695.24	0.0136	0.0123
Mars	-778-04-29 07:40 J	1437376.67	1437376.82	1437376.97	0.1804	0.1243
Saturn	-778-07-06 06:57 J	1437444.67	1437444.79	1437444.91	0.0270	0.0239
Saturn	-765-12-29 02:38 J	1442369.38	1442369.61	1442369.85	0.0291	0.0091

Saturn	-749-06-30 03:50 J	1448031.42	1448031.66	1448031.91	0.0270	0.0011
Jupiter	-745-06-07 09:35 J	1449469.73	1449469.90	1449470.07	0.0515	0.0356
Uranus	-744-11-11 18:00 J	1449992.19	1449992.25	1449992.36	0.0139	0.0131
Uranus	-743-11-16 04:19 J	1450361.52	1450361.68	1450361.86	0.0139	0.0098
Uranus	-742-11-20 20:24 J	1450731.14	1450731.35	1450731.58	0.0140	0.0075
Uranus	-741-11-24 06:43 J	1451100.55	1451100.78	1451101.03	0.0140	0.0029
Uranus	-740-11-29 01:40 J	1451470.31	1451470.57	1451470.83	0.0141	0.0009
Uranus	-739-12-03 12:00 J	1451839.77	1451840.00	1451840.25	0.0141	0.0035
Uranus	-738-12-08 09:21 J	1452209.67	1452209.89	1452210.13	0.0142	0.0064
Uranus	-737-12-11 20:38 J	1452579.18	1452579.36	1452579.55	0.0142	0.0095
Uranus	-736-12-16 20:09 J	1452949.31	1452949.34	1452949.42	0.0143	0.0139
Saturn	-736-12-23 20:09 J	1452956.20	1452956.34	1452956.49	0.0293	0.0229
Jupiter	-733-06-12 03:07 J	1453857.38	1453857.63	1453857.88	0.0518	0.0032
Jupiter	-728-12-07 08:38 J	1455861.66	1455861.86	1455862.08	0.0510	0.0211
Jupiter	-721-06-17 05:31 J	1458245.54	1458245.73	1458245.92	0.0520	0.0294
Neptune	-716-01-02 01:26 J	1459905.52	1459905.56	1459905.67	0.0089	0.0085
Jupiter	-716-12-12 00:57 J	1460249.32	1460249.54	1460249.76	0.0509	0.0039
Neptune	-715-01-04 18:57 J	1460273.10	1460273.29	1460273.53	0.0089	0.0050
Neptune	-714-01-06 23:45 J	1460640.27	1460640.49	1460640.73	0.0089	0.0032
Neptune	-713-01-09 14:38 J	1461007.85	1461008.11	1461008.38	0.0089	0.0003
Neptune	-712-01-10 22:33 J	1461375.21	1461375.44	1461375.69	0.0089	0.0021
Neptune	-711-01-13 07:40 J	1461742.64	1461742.82	1461743.05	0.0089	0.0056
Neptune	-710-01-15 21:07 J	1462110.26	1462110.38	1462110.53	0.0089	0.0074
Saturn	-706-12-31 17:45 J	1463921.07	1463921.24	1463921.43	0.0291	0.0194
Uranus	-704-05-12 08:38 J	1464418.78	1464418.86	1464418.98	0.0140	0.0128
Jupiter	-704-12-16 07:26 J	1464636.61	1464636.81	1464637.02	0.0507	0.0263
Uranus	-703-05-17 08:38 J	1464788.71	1464788.86	1464789.04	0.0139	0.0107
Pluto	-703-06-14 20:09 J	1464817.13	1464817.34	1464817.61	0.0079	0.0037
Uranus	-702-05-21 23:16 J	1465158.24	1465158.47	1465158.69	0.0139	0.0061
Uranus	-701-05-25 23:16 J	1465528.22	1465528.47	1465528.73	0.0138	0.0037

Uranus	-700-05-30 10:33 J	1465897.69	1465897.94	1465898.19	0.0138	0.0002
Uranus	-699-06-04 09:50 J	1466267.67	1466267.91	1466268.17	0.0137	0.0034
Uranus	-698-06-08 18:57 J	1466637.07	1466637.29	1466637.54	0.0137	0.0055
Uranus	-697-06-12 18:00 J	1467007.08	1467007.25	1467007.43	0.0136	0.0098
Uranus	-696-06-17 01:12 J	1467376.44	1467376.55	1467376.71	0.0136	0.0116
Saturn	-690-07-02 18:00 J	1469583.02	1469583.25	1469583.48	0.0270	0.0068
Saturn	-677-12-25 14:38 J	1474507.89	1474508.11	1474508.33	0.0292	0.0125
Jupiter	-662-06-07 03:07 J	1479784.50	1479784.63	1479784.78	0.0516	0.0415
Saturn	-661-06-26 12:28 J	1480169.86	1480170.02	1480170.21	0.0268	0.0195
Uranus	-660-11-12 06:28 J	1480673.67	1480673.77	1480673.89	0.0139	0.0125
Uranus	-659-11-16 17:31 J	1481043.06	1481043.23	1481043.40	0.0139	0.0098
Uranus	-658-11-21 08:38 J	1481412.63	1481412.86	1481413.10	0.0140	0.0057
Uranus	-657-11-24 19:55 J	1481782.11	1481782.33	1481782.58	0.0140	0.0038
Uranus	-656-11-29 14:24 J	1482151.85	1482152.10	1482152.36	0.0141	0.0010
Uranus	-655-12-04 02:09 J	1482521.36	1482521.59	1482521.83	0.0141	0.0033
Uranus	-654-12-08 22:33 J	1482891.23	1482891.44	1482891.68	0.0142	0.0071
Uranus	-653-12-12 10:47 J	1483260.79	1483260.95	1483261.11	0.0142	0.0107
Uranus	-652-12-17 09:50 J	1483630.82	1483630.91	1483631.01	0.0143	0.0131
Jupiter	-650-06-12 06:00 J	1484172.53	1484172.75	1484172.98	0.0517	0.0079
Saturn	-646-01-02 10:33 J	1485472.92	1485472.94	1485472.96	0.0291	0.0289
Jupiter	-645-12-06 15:35 J	1486176.96	1486177.15	1486177.34	0.0511	0.0267
Jupiter	-638-06-17 07:26 J	1488560.59	1488560.81	1488561.03	0.0518	0.0228
Neptune	-633-07-06 21:21 J	1490407.27	1490407.39	1490407.57	0.0089	0.0072
Jupiter	-633-12-10 22:04 J	1490564.19	1490564.42	1490564.66	0.0510	0.0025
Neptune	-632-07-09 15:50 J	1490774.96	1490775.16	1490775.39	0.0089	0.0053
Saturn	-631-07-04 05:02 J	1491134.51	1491134.71	1491134.93	0.0270	0.0141
Neptune	-631-07-12 02:09 J	1491142.35	1491142.59	1491142.85	0.0089	0.0018
Neptune	-630-07-14 15:50 J	1491509.89	1491510.16	1491510.43	0.0089	0.0001
Neptune	-629-07-16 06:14 J	1491877.54	1491877.76	1491878.00	0.0089	0.0037
Neptune	-628-07-18 14:38 J	1492244.92	1492245.11	1492245.33	0.0089	0.0055

Jupiter	-626-06-22 00:28 J	1492948.44	1492948.52	1492948.61	0.0520	0.0482
Jupiter	-621-12-15 10:47 J	1494951.75	1494951.95	1494952.15	0.0508	0.0204
Uranus	-620-05-12 21:50 J	1495100.35	1495100.41	1495100.50	0.0140	0.0133
Uranus	-619-05-17 20:38 J	1495470.17	1495470.36	1495470.58	0.0139	0.0087
Uranus	-618-05-22 11:45 J	1495839.78	1495839.99	1495840.22	0.0138	0.0068
Saturn	-618-12-28 01:55 J	1496059.33	1496059.58	1496059.83	0.0292	0.0027
Uranus	-617-05-26 11:16 J	1496209.71	1496209.97	1496210.24	0.0138	0.0024
Uranus	-616-05-30 23:45 J	1496579.23	1496579.49	1496579.74	0.0138	0.0005
Uranus	-615-06-04 22:33 J	1496949.20	1496949.44	1496949.71	0.0137	0.0032
Uranus	-614-06-09 08:38 J	1497318.65	1497318.86	1497319.08	0.0137	0.0073
Uranus	-613-06-13 06:43 J	1497688.60	1497688.78	1497688.99	0.0136	0.0090
Uranus	-612-06-17 13:55 J	1498058.07	1498058.08	1498058.15	0.0136	0.0134
Jupiter	-609-12-20 02:24 J	1499339.54	1499339.60	1499339.67	0.0506	0.0482
Saturn	-602-06-28 17:16 J	1501721.01	1501721.22	1501721.45	0.0268	0.0125
Mars	-599-10-29 04:47 J	1502939.50	1502939.70	1502939.90	0.1733	0.0146
Jupiter	-579-06-06 08:09 J	1510099.75	1510099.84	1510099.95	0.0515	0.0462
Uranus	-576-11-12 18:14 J	1511355.15	1511355.26	1511355.41	0.0139	0.0119
Uranus	-575-11-17 06:43 J	1511724.60	1511724.78	1511724.98	0.0139	0.0087
Uranus	-574-11-21 20:38 J	1512094.15	1512094.36	1512094.61	0.0140	0.0063
Mars	-573-04-25 21:21 J	1512250.24	1512250.39	1512250.53	0.1791	0.1186
Uranus	-573-11-25 09:21 J	1512463.65	1512463.89	1512464.13	0.0140	0.0018
Saturn	-572-07-05 08:24 J	1512685.69	1512685.85	1512686.02	0.0270	0.0209
Uranus	-572-11-30 02:09 J	1512833.33	1512833.59	1512833.85	0.0141	0.0002
Uranus	-571-12-04 14:24 J	1513202.87	1513203.10	1513203.33	0.0141	0.0047
Uranus	-570-12-09 09:35 J	1513572.69	1513572.90	1513573.13	0.0142	0.0074
Uranus	-569-12-12 22:04 J	1513942.28	1513942.42	1513942.60	0.0142	0.0107
Jupiter	-567-06-11 07:40 J	1514487.58	1514487.82	1514488.06	0.0516	0.0127
Jupiter	-562-12-06 15:35 J	1516491.97	1516492.15	1516492.34	0.0512	0.0319
Saturn	-559-12-29 06:28 J	1517610.53	1517610.77	1517611.01	0.0292	0.0063
Jupiter	-555-06-15 22:47 J	1518875.23	1518875.45	1518875.68	0.0519	0.0164

Neptune	-551-01-03 21:35 J	1520173.27	1520173.40	1520173.58	0.0089	0.0070
Neptune	-550-01-06 11:45 J	1520540.76	1520540.99	1520541.22	0.0089	0.0041
Jupiter	-550-12-11 06:57 J	1520879.58	1520879.79	1520880.01	0.0510	0.0073
Neptune	-549-01-08 21:07 J	1520908.15	1520908.38	1520908.63	0.0089	0.0017
Neptune	-548-01-10 06:14 J	1521275.51	1521275.76	1521276.03	0.0089	0.0012
Neptune	-547-01-12 20:38 J	1521643.14	1521643.36	1521643.60	0.0089	0.0036
Neptune	-546-01-15 00:57 J	1522010.38	1522010.54	1522010.74	0.0089	0.0064
Neptune	-545-01-17 18:00 J	1522378.22	1522378.25	1522378.32	0.0089	0.0087
Pluto	-545-12-12 20:38 J	1522708.17	1522708.36	1522708.60	0.0065	0.0032
Jupiter	-543-06-21 09:35 J	1523263.77	1523263.90	1523264.04	0.0521	0.0425
Saturn	-543-06-30 00:57 J	1523272.31	1523272.54	1523272.78	0.0268	0.0056
Jupiter	-538-12-15 21:07 J	1525267.16	1525267.38	1525267.61	0.0508	0.0159
Uranus	-536-05-13 09:07 J	1525781.77	1525781.88	1525782.03	0.0140	0.0118
Uranus	-535-05-18 07:12 J	1526151.62	1526151.80	1526152.00	0.0139	0.0096
Uranus	-534-05-22 23:45 J	1526521.26	1526521.49	1526521.73	0.0138	0.0050
Uranus	-533-05-26 22:04 J	1526891.16	1526891.42	1526891.69	0.0138	0.0027
Uranus	-532-05-31 11:02 J	1527260.71	1527260.96	1527261.21	0.0138	0.0010
Uranus	-531-06-05 09:07 J	1527630.63	1527630.88	1527631.14	0.0137	0.0044
Uranus	-530-06-09 19:12 J	1528000.09	1528000.30	1528000.54	0.0137	0.0066
Saturn	-530-12-23 11:31 J	1528196.96	1528196.98	1528197.00	0.0294	0.0292
Uranus	-529-06-13 17:16 J	1528370.06	1528370.22	1528370.38	0.0136	0.0109
Uranus	-528-06-18 01:12 J	1528739.46	1528739.55	1528739.65	0.0136	0.0125
Jupiter	-526-12-20 01:12 J	1529654.45	1529654.55	1529654.67	0.0506	0.0438
Mars	-520-10-31 20:38 J	1531797.24	1531797.36	1531797.48	0.1728	0.1313
Saturn	-500-12-30 12:00 J	1539161.80	1539162.00	1539162.21	0.0292	0.0142
Jupiter	-496-06-05 07:40 J	1540414.79	1540414.82	1540414.85	0.0515	0.0510
Mars	-494-04-29 11:45 J	1541107.87	1541107.99	1541108.12	0.1796	0.1315
Uranus	-492-11-13 04:04 J	1542036.55	1542036.67	1542036.83	0.0139	0.0117
Uranus	-491-11-17 17:16 J	1542406.05	1542406.22	1542406.43	0.0139	0.0088
Uranus	-490-11-22 06:28 J	1542775.53	1542775.77	1542776.02	0.0140	0.0048

Uranus	-489-11-25 20:09 J	1543145.11	1543145.34	1543145.58	0.0140	0.0027
Uranus	-488-11-30 11:45 J	1543514.74	1543514.99	1543515.25	0.0141	0.0020
Uranus	-487-12-05 01:26 J	1543884.33	1543884.56	1543884.79	0.0141	0.0042
Uranus	-486-12-09 19:40 J	1544254.12	1544254.32	1544254.54	0.0142	0.0081
Uranus	-485-12-13 09:07 J	1544623.75	1544623.88	1544624.03	0.0142	0.0115
Jupiter	-484-06-10 04:04 J	1544802.46	1544802.67	1544802.90	0.0517	0.0176
Saturn	-484-07-01 07:55 J	1544823.58	1544823.83	1544824.07	0.0268	0.0008
Uranus	-484-12-18 06:14 J	1544993.74	1544993.76	1544993.82	0.0143	0.0141
Jupiter	-479-12-06 02:09 J	1546807.43	1546807.59	1546807.75	0.0512	0.0354
Jupiter	-472-06-15 14:09 J	1549190.86	1549191.09	1549191.32	0.0518	0.0128
Saturn	-471-12-24 12:14 J	1549747.85	1549748.01	1549748.17	0.0294	0.0219
Neptune	-469-07-06 08:52 J	1550307.84	1550307.87	1550307.94	0.0089	0.0087
Neptune	-468-07-08 19:55 J	1550675.18	1550675.33	1550675.53	0.0089	0.0065
Neptune	-467-07-11 08:09 J	1551042.61	1551042.84	1551043.11	0.0089	0.0034
Jupiter	-467-12-10 17:16 J	1551195.00	1551195.22	1551195.45	0.0510	0.0122
Neptune	-466-07-14 00:57 J	1551410.28	1551410.54	1551410.79	0.0089	0.0011
Neptune	-465-07-15 08:38 J	1551777.60	1551777.86	1551778.12	0.0089	0.0019
Neptune	-464-07-18 04:04 J	1552145.45	1552145.67	1552145.90	0.0089	0.0042
Neptune	-463-07-20 09:50 J	1552512.77	1552512.91	1552513.07	0.0089	0.0072
Jupiter	-460-06-20 07:40 J	1553578.67	1553578.82	1553578.99	0.0520	0.0380
Saturn	-455-06-25 22:04 J	1555410.35	1555410.42	1555410.51	0.0267	0.0253
Jupiter	-455-12-14 21:50 J	1555582.19	1555582.41	1555582.63	0.0508	0.0113
Uranus	-452-05-13 19:26 J	1556463.20	1556463.31	1556463.43	0.0140	0.0123
Uranus	-451-05-18 15:50 J	1556832.95	1556833.16	1556833.39	0.0139	0.0078
Uranus	-450-05-23 09:35 J	1557202.69	1557202.90	1557203.14	0.0139	0.0059
Uranus	-449-05-27 07:12 J	1557572.53	1557572.80	1557573.07	0.0138	0.0014
Uranus	-448-05-31 21:35 J	1557942.15	1557942.40	1557942.65	0.0138	0.0013
Uranus	-447-06-05 19:12 J	1558312.06	1558312.30	1558312.56	0.0137	0.0042
Uranus	-446-06-10 06:28 J	1558681.58	1558681.77	1558681.98	0.0137	0.0082
Uranus	-445-06-14 03:21 J	1559051.48	1559051.64	1559051.84	0.0136	0.0100

Jupiter	-443-12-19 17:45 J	1559970.11	1559970.24	1559970.39	0.0507	0.0405
Saturn	-441-12-31 17:02 J	1560713.05	1560713.21	1560713.38	0.0292	0.0209
Saturn	-425-07-02 08:38 J	1566374.61	1566374.86	1566375.11	0.0268	0.0067
Saturn	-412-12-25 06:43 J	1571298.57	1571298.78	1571298.99	0.0294	0.0155
Uranus	-408-11-13 15:07 J	1572717.99	1572718.13	1572718.31	0.0139	0.0109
Uranus	-407-11-18 05:45 J	1573087.56	1573087.74	1573087.95	0.0139	0.0080
Uranus	-406-11-22 17:02 J	1573456.99	1573457.21	1573457.47	0.0140	0.0053
Uranus	-405-11-26 07:55 J	1573826.59	1573826.83	1573827.07	0.0140	0.0009
Uranus	-404-11-30 21:50 J	1574196.15	1574196.41	1574196.67	0.0141	0.0011
Uranus	-403-12-05 12:00 J	1574565.79	1574566.00	1574566.23	0.0141	0.0056
Uranus	-402-12-10 04:47 J	1574935.50	1574935.70	1574935.92	0.0142	0.0081
Jupiter	-401-06-09 20:52 J	1575118.15	1575118.37	1575118.59	0.0516	0.0200
Uranus	-401-12-13 19:40 J	1575305.18	1575305.32	1575305.46	0.0142	0.0116
Saturn	-396-06-26 21:21 J	1576961.23	1576961.39	1576961.55	0.0267	0.0199
Jupiter	-396-12-05 12:43 J	1577122.89	1577123.03	1577123.19	0.0512	0.0395
Mars	-394-10-27 11:31 J	1577813.90	1577813.98	1577814.07	0.1745	0.1530
Jupiter	-389-06-14 12:28 J	1579505.78	1579506.02	1579506.25	0.0518	0.0084
Neptune	-387-01-03 10:19 J	1580073.89	1580073.93	1580074.01	0.0089	0.0086
Neptune	-386-01-05 20:24 J	1580441.17	1580441.35	1580441.57	0.0089	0.0052
Neptune	-385-01-08 03:50 J	1580808.44	1580808.66	1580808.93	0.0089	0.0035
Neptune	-384-01-09 19:12 J	1581176.05	1581176.30	1581176.55	0.0089	0.0001
Jupiter	-384-12-09 21:21 J	1581510.18	1581510.39	1581510.61	0.0510	0.0162
Neptune	-383-01-11 23:31 J	1581543.23	1581543.48	1581543.73	0.0089	0.0017
Neptune	-382-01-14 16:19 J	1581911.00	1581911.18	1581911.41	0.0089	0.0053
Saturn	-381-01-02 15:35 J	1582264.06	1582264.15	1582264.26	0.0292	0.0266
Neptune	-381-01-16 20:09 J	1582278.21	1582278.34	1582278.52	0.0089	0.0070
Jupiter	-377-06-19 14:52 J	1583893.95	1583894.12	1583894.30	0.0520	0.0325
Jupiter	-372-12-14 19:55 J	1585898.10	1585898.33	1585898.56	0.0509	0.0094
Uranus	-368-05-14 03:07 J	1587144.49	1587144.63	1587144.79	0.0140	0.0111
Uranus	-367-05-18 22:19 J	1587514.24	1587514.43	1587514.66	0.0139	0.0088

Uranus	-366-05-23 18:00 J	1587884.02	1587884.25	1587884.49	0.0139	0.0041
Saturn	-366-07-04 03:35 J	1587925.43	1587925.65	1587925.89	0.0268	0.0121
Uranus	-365-05-27 13:55 J	1588253.82	1588254.08	1588254.35	0.0138	0.0020
Uranus	-364-06-01 05:31 J	1588623.48	1588623.73	1588623.98	0.0138	0.0019
Uranus	-363-06-06 01:40 J	1588993.32	1588993.57	1588993.82	0.0137	0.0051
Uranus	-362-06-10 14:09 J	1589362.88	1589363.09	1589363.30	0.0137	0.0074
Uranus	-361-06-14 09:21 J	1589732.78	1589732.89	1589733.05	0.0136	0.0117
Uranus	-360-06-18 19:12 J	1590102.27	1590102.30	1590102.38	0.0136	0.0133
Jupiter	-360-12-18 23:31 J	1590285.34	1590285.48	1590285.64	0.0507	0.0384
Saturn	-353-12-26 02:52 J	1592849.40	1592849.62	1592849.85	0.0294	0.0101
Saturn	-337-06-28 00:28 J	1598512.32	1598512.52	1598512.72	0.0267	0.0148
Uranus	-325-11-09 17:31 J	1603030.16	1603030.23	1603030.32	0.0138	0.0131
Uranus	-324-11-14 01:26 J	1603399.41	1603399.56	1603399.73	0.0139	0.0109
Uranus	-323-11-18 17:02 J	1603769.01	1603769.21	1603769.41	0.0139	0.0077
Uranus	-322-11-23 03:07 J	1604138.39	1604138.63	1604138.89	0.0140	0.0040
Uranus	-321-11-26 19:12 J	1604508.06	1604508.30	1604508.54	0.0140	0.0017
Uranus	-320-12-01 07:40 J	1604877.58	1604877.82	1604878.09	0.0141	0.0030
Uranus	-319-12-05 23:45 J	1605247.27	1605247.49	1605247.72	0.0141	0.0050
Jupiter	-318-06-09 14:09 J	1605432.89	1605433.09	1605433.30	0.0515	0.0250
Uranus	-318-12-10 15:07 J	1605616.95	1605617.13	1605617.35	0.0142	0.0091
Uranus	-317-12-14 06:57 J	1605986.68	1605986.79	1605986.93	0.0142	0.0122
Mars	-315-10-29 15:50 J	1606670.98	1606671.16	1606671.34	0.1740	0.0451
Jupiter	-313-12-04 21:50 J	1607438.29	1607438.41	1607438.55	0.0513	0.0416
Saturn	-307-07-05 00:28 J	1609476.34	1609476.52	1609476.72	0.0268	0.0175
Jupiter	-306-06-14 22:47 J	1609821.22	1609821.45	1609821.68	0.0518	0.0034
Neptune	-304-07-08 02:52 J	1610575.48	1610575.62	1610575.79	0.0089	0.0072
Neptune	-303-07-10 20:09 J	1610943.16	1610943.34	1610943.56	0.0089	0.0054
Neptune	-302-07-13 03:07 J	1611310.39	1611310.63	1611310.90	0.0089	0.0020
Neptune	-301-07-14 23:16 J	1611678.21	1611678.47	1611678.73	0.0089	0.0001
Jupiter	-301-12-09 18:43 J	1611826.07	1611826.28	1611826.50	0.0511	0.0186

Neptune	-300-07-17 04:47 J	1612045.48	1612045.70	1612045.95	0.0089	0.0035
Neptune	-299-07-20 00:00 J	1612413.31	1612413.50	1612413.73	0.0089	0.0053
Neptune	-298-07-22 07:26 J	1612780.80	1612780.81	1612780.88	0.0089	0.0088
Pluto	-298-12-15 05:16 J	1612926.48	1612926.72	1612926.97	0.0065	0.0014
Jupiter	-294-06-19 23:02 J	1614209.27	1614209.46	1614209.67	0.0520	0.0291
Saturn	-294-12-28 02:52 J	1614400.39	1614400.62	1614400.85	0.0294	0.0047
Mars	-289-04-25 13:26 J	1615980.91	1615981.06	1615981.21	0.1782	0.1286
Jupiter	-289-12-13 23:31 J	1616213.25	1616213.48	1616213.72	0.0509	0.0066
Uranus	-284-05-14 11:16 J	1617825.84	1617825.97	1617826.12	0.0140	0.0114
Uranus	-283-05-19 04:47 J	1618195.49	1618195.70	1618195.95	0.0139	0.0071
Uranus	-282-05-24 02:09 J	1618565.36	1618565.59	1618565.83	0.0139	0.0051
Uranus	-281-05-27 20:38 J	1618935.09	1618935.36	1618935.63	0.0138	0.0005
Uranus	-280-06-01 14:09 J	1619304.84	1619305.09	1619305.34	0.0138	0.0019
Uranus	-279-06-06 08:52 J	1619674.64	1619674.87	1619675.13	0.0137	0.0051
Uranus	-278-06-10 22:47 J	1620044.27	1620044.45	1620044.65	0.0137	0.0088
Saturn	-278-06-30 00:57 J	1620063.31	1620063.54	1620063.78	0.0267	0.0096
Uranus	-277-06-14 17:31 J	1620414.08	1620414.23	1620414.41	0.0136	0.0107
Jupiter	-277-12-18 14:38 J	1620600.97	1620601.11	1620601.27	0.0507	0.0364
Saturn	-248-07-06 03:50 J	1631027.55	1631027.66	1631027.79	0.0268	0.0232
Uranus	-241-11-10 06:00 J	1633711.72	1633711.75	1633711.80	0.0138	0.0137
Uranus	-240-11-14 12:57 J	1634080.87	1634081.04	1634081.23	0.0139	0.0098
Uranus	-239-11-19 05:31 J	1634450.53	1634450.73	1634450.95	0.0139	0.0070
Uranus	-238-11-23 14:38 J	1634819.87	1634820.11	1634820.36	0.0140	0.0042
Uranus	-237-11-27 07:26 J	1635189.57	1635189.81	1635190.05	0.0140	0.0001
Mars	-236-11-01 05:31 J	1635528.68	1635528.73	1635528.77	0.1735	0.1686
Uranus	-236-12-01 18:43 J	1635559.03	1635559.28	1635559.54	0.0141	0.0020
Jupiter	-235-06-09 08:24 J	1635748.65	1635748.85	1635749.05	0.0515	0.0274
Uranus	-235-12-06 11:16 J	1635928.77	1635928.97	1635929.20	0.0141	0.0067
Saturn	-235-12-29 01:12 J	1635951.31	1635951.55	1635951.79	0.0294	0.0008
Uranus	-234-12-11 01:40 J	1636298.38	1636298.57	1636298.78	0.0142	0.0089

Uranus	-233-12-14 18:28 J	1636668.18	1636668.27	1636668.41	0.0142	0.0126
Jupiter	-230-12-05 16:04 J	1637754.07	1637754.17	1637754.29	0.0513	0.0446
Jupiter	-223-06-14 05:45 J	1640136.50	1640136.74	1640136.99	0.0517	0.0007
Neptune	-222-01-05 03:50 J	1640341.52	1640341.66	1640341.84	0.0089	0.0069
Neptune	-221-01-07 19:55 J	1640709.12	1640709.33	1640709.55	0.0089	0.0044
Neptune	-220-01-08 23:16 J	1641076.24	1641076.47	1641076.74	0.0089	0.0019
Neptune	-219-01-11 16:47 J	1641443.95	1641444.20	1641444.46	0.0089	0.0009
Saturn	-219-06-30 20:09 J	1641614.09	1641614.34	1641614.60	0.0267	0.0041
Neptune	-218-01-13 20:38 J	1641811.14	1641811.36	1641811.60	0.0089	0.0034
Jupiter	-218-12-09 20:09 J	1642141.13	1642141.34	1642141.55	0.0511	0.0224
Neptune	-217-01-16 11:45 J	1642178.82	1642178.99	1642179.20	0.0089	0.0061
Neptune	-216-01-17 18:57 J	1642546.24	1642546.29	1642546.38	0.0089	0.0085
Jupiter	-211-06-19 05:45 J	1644524.54	1644524.74	1644524.94	0.0519	0.0250
Mars	-210-04-29 21:35 J	1644839.30	1644839.40	1644839.50	0.1789	0.1531
Pluto	-210-06-16 12:00 J	1644886.90	1644887.00	1644887.14	0.0079	0.0071
Jupiter	-206-12-14 15:21 J	1646528.92	1646529.14	1646529.37	0.0509	0.0045
Uranus	-201-05-09 18:14 J	1648137.22	1648137.26	1648137.34	0.0140	0.0136
Uranus	-200-05-14 20:09 J	1648507.18	1648507.34	1648507.52	0.0140	0.0103
Uranus	-199-05-19 12:43 J	1648876.82	1648877.03	1648877.26	0.0139	0.0078
Uranus	-198-05-24 10:47 J	1649246.72	1649246.95	1649247.21	0.0139	0.0033
Uranus	-197-05-28 03:50 J	1649616.40	1649616.66	1649616.93	0.0138	0.0012
Uranus	-196-06-01 22:19 J	1649986.19	1649986.43	1649986.68	0.0138	0.0029
Uranus	-195-06-06 15:07 J	1650355.90	1650356.13	1650356.39	0.0137	0.0058
Uranus	-194-06-11 06:14 J	1650725.58	1650725.76	1650725.98	0.0137	0.0084
Jupiter	-194-12-19 03:35 J	1650916.48	1650916.65	1650916.82	0.0508	0.0350
Uranus	-193-06-14 23:31 J	1651095.39	1651095.48	1651095.61	0.0136	0.0123
Saturn	-176-12-29 20:09 J	1657502.10	1657502.34	1657502.59	0.0293	0.0064
Saturn	-160-07-01 18:14 J	1663165.01	1663165.26	1663165.51	0.0268	0.0019
Uranus	-157-11-10 17:16 J	1664393.11	1664393.22	1664393.35	0.0138	0.0120
Uranus	-156-11-14 23:02 J	1664762.31	1664762.46	1664762.66	0.0139	0.0100

Uranus	-155-11-19 16:33 J	1665131.99	1665132.19	1665132.42	0.0139	0.0065
Uranus	-154-11-24 00:57 J	1665501.30	1665501.54	1665501.80	0.0140	0.0030
Uranus	-153-11-27 19:12 J	1665871.06	1665871.30	1665871.54	0.0140	0.0006
Jupiter	-152-06-08 10:33 J	1666063.75	1666063.94	1666064.15	0.0515	0.0309
Uranus	-152-12-02 05:31 J	1666240.49	1666240.73	1666240.99	0.0141	0.0040
Uranus	-151-12-06 23:45 J	1666610.28	1666610.49	1666610.72	0.0141	0.0059
Uranus	-150-12-11 12:57 J	1666979.88	1666980.04	1666980.24	0.0142	0.0102
Uranus	-149-12-15 07:12 J	1667349.72	1667349.80	1667349.91	0.0142	0.0131
Jupiter	-147-12-04 17:02 J	1668069.14	1668069.21	1668069.29	0.0514	0.0485
Saturn	-147-12-23 23:45 J	1668088.42	1668088.49	1668088.57	0.0294	0.0276
Jupiter	-140-06-13 06:00 J	1670451.53	1670451.75	1670451.98	0.0516	0.0066
Neptune	-140-07-07 15:21 J	1670476.09	1670476.14	1670476.20	0.0089	0.0086
Neptune	-139-07-09 21:50 J	1670843.25	1670843.41	1670843.60	0.0089	0.0066
Neptune	-138-07-12 18:00 J	1671211.03	1671211.25	1671211.51	0.0089	0.0034
Neptune	-137-07-14 00:28 J	1671578.28	1671578.52	1671578.79	0.0089	0.0013
Neptune	-136-07-16 19:40 J	1671946.07	1671946.32	1671946.59	0.0089	0.0019
Neptune	-135-07-19 04:47 J	1672313.48	1672313.70	1672313.93	0.0089	0.0040
Jupiter	-135-12-09 13:26 J	1672456.87	1672457.06	1672457.26	0.0512	0.0255
Neptune	-134-07-21 18:57 J	1672681.16	1672681.29	1672681.48	0.0089	0.0071
Saturn	-131-06-27 02:52 J	1673752.51	1673752.62	1673752.74	0.0266	0.0234
Jupiter	-128-06-18 10:04 J	1674839.70	1674839.92	1674840.15	0.0518	0.0196
Jupiter	-123-12-14 00:43 J	1676844.29	1676844.53	1676844.76	0.0510	0.0023
Uranus	-117-05-10 03:50 J	1678818.62	1678818.66	1678818.75	0.0140	0.0135
Saturn	-117-12-30 18:28 J	1679053.05	1679053.27	1679053.49	0.0293	0.0129
Uranus	-116-05-15 06:28 J	1679188.61	1679188.77	1679188.95	0.0140	0.0103
Uranus	-115-05-19 21:50 J	1679558.17	1679558.41	1679558.65	0.0139	0.0061
Uranus	-114-05-24 20:52 J	1679928.14	1679928.37	1679928.62	0.0139	0.0041
Uranus	-113-05-28 12:28 J	1680297.76	1680298.02	1680298.29	0.0138	0.0006
Uranus	-112-06-02 08:38 J	1680667.62	1680667.86	1680668.11	0.0138	0.0027
Uranus	-111-06-07 00:43 J	1681037.29	1681037.53	1681037.77	0.0137	0.0062

Jupiter	-111-12-18 10:19 J	1681231.76	1681231.93	1681232.11	0.0508	0.0320
Uranus	-110-06-11 16:47 J	1681407.04	1681407.20	1681407.39	0.0137	0.0096
Mars	-110-10-28 12:43 J	1681545.88	1681546.03	1681546.19	0.1751	0.1047
Uranus	-109-06-15 09:07 J	1681776.75	1681776.88	1681777.03	0.0136	0.0116
Saturn	-101-07-03 00:00 J	1684716.27	1684716.50	1684716.73	0.0268	0.0084
Saturn	-88-12-25 06:28 J	1689639.61	1689639.77	1689639.95	0.0294	0.0206
Uranus	-73-11-11 04:33 J	1695074.60	1695074.69	1695074.79	0.0138	0.0127
Saturn	-72-06-28 06:28 J	1695303.57	1695303.77	1695303.97	0.0267	0.0167
Uranus	-72-11-15 10:04 J	1695443.73	1695443.92	1695444.12	0.0139	0.0086
Uranus	-71-11-20 04:19 J	1695813.46	1695813.68	1695813.91	0.0139	0.0060
Uranus	-70-11-24 11:45 J	1696182.74	1696182.99	1696183.24	0.0140	0.0030
Jupiter	-69-06-07 11:45 J	1696378.83	1696378.99	1696379.15	0.0514	0.0361
Uranus	-69-11-28 06:14 J	1696552.52	1696552.76	1696553.01	0.0140	0.0011
Uranus	-68-12-02 15:35 J	1696921.91	1696922.15	1696922.41	0.0141	0.0031
Uranus	-67-12-07 10:33 J	1697291.75	1697291.94	1697292.16	0.0141	0.0077
Uranus	-66-12-11 23:02 J	1697661.28	1697661.46	1697661.65	0.0142	0.0098
Uranus	-65-12-15 18:14 J	1698031.22	1698031.26	1698031.34	0.0142	0.0138
Neptune	-58-01-04 20:24 J	1700242.32	1700242.35	1700242.42	0.0089	0.0087
Saturn	-57-01-02 02:09 J	1700604.42	1700604.59	1700604.76	0.0293	0.0202
Neptune	-57-01-07 00:00 J	1700609.31	1700609.50	1700609.72	0.0089	0.0052
Jupiter	-57-06-12 14:38 J	1700766.87	1700767.11	1700767.35	0.0516	0.0110
Neptune	-56-01-08 17:02 J	1700976.99	1700977.21	1700977.46	0.0089	0.0036
Neptune	-55-01-10 21:35 J	1701344.15	1701344.40	1701344.65	0.0089	0.0001
Neptune	-54-01-13 12:00 J	1701711.75	1701712.00	1701712.27	0.0089	0.0016
Neptune	-53-01-15 20:09 J	1702079.15	1702079.34	1702079.56	0.0089	0.0050
Neptune	-52-01-17 06:00 J	1702446.61	1702446.75	1702446.95	0.0089	0.0067
Jupiter	-52-12-08 18:28 J	1702772.08	1702772.27	1702772.46	0.0512	0.0298
Pluto	-51-12-16 11:31 J	1703144.73	1703144.98	1703145.23	0.0065	0.0007
Jupiter	-45-06-17 10:04 J	1705154.70	1705154.92	1705155.15	0.0518	0.0153
Saturn	-42-07-05 09:50 J	1706267.71	1706267.91	1706268.11	0.0268	0.0154

Jupiter	-40-12-13 03:21 J	1707159.41	1707159.64	1707159.86	0.0510	0.0023
Uranus	-33-05-10 14:09 J	1709499.98	1709500.09	1709500.21	0.0140	0.0124
Jupiter	-33-06-22 17:31 J	1709543.15	1709543.23	1709543.32	0.0520	0.0482
Uranus	-32-05-15 17:02 J	1709870.04	1709870.21	1709870.42	0.0140	0.0094
Uranus	-31-05-20 07:12 J	1710239.59	1710239.80	1710240.05	0.0139	0.0067
Mars	-31-10-30 20:52 J	1710403.23	1710403.37	1710403.52	0.1746	0.0947
Uranus	-30-05-25 07:26 J	1710609.57	1710609.81	1710610.07	0.0139	0.0022
Uranus	-29-05-28 21:35 J	1710979.14	1710979.40	1710979.67	0.0138	0.0003
Saturn	-29-12-26 12:00 J	1711190.78	1711191.00	1711191.23	0.0294	0.0128
Uranus	-28-06-02 18:28 J	1711349.04	1711349.27	1711349.52	0.0138	0.0040
Jupiter	-28-12-17 19:55 J	1711547.14	1711547.33	1711547.53	0.0509	0.0277
Uranus	-27-06-07 08:24 J	1711718.63	1711718.85	1711719.10	0.0137	0.0065
Uranus	-26-06-12 02:09 J	1712088.42	1712088.59	1712088.79	0.0137	0.0094
Uranus	-25-06-15 16:47 J	1712458.15	1712458.20	1712458.28	0.0136	0.0132
Saturn	-13-06-29 08:52 J	1716854.64	1716854.87	1716855.12	0.0267	0.0098
Mars	-5-04-25 14:09 J	1719711.95	1719712.09	1719712.22	0.1774	0.1194